

# YESSS INDUSTRIAL



**INDUSTRIAL TO THE CORE**  
PACKED FULL OF QUALITY PRODUCTS

# WELCOME TO YESSS INDUSTRIAL

AT YESSS INDUSTRIAL OUR PURPOSE IS TO CREATE SUPERIOR VALUE FOR OUR CUSTOMERS BY DELIVERING WORLD CLASS SUPPLIES, SERVICE AND SOLUTIONS

## SUPPLIES

- All the major brands
- Comprehensive product range
- UK branches offer same day collection, quality showrooms and product ranges

## SERVICE

- Local branches offering same day FREE delivery service
- Nationwide service also available
- Nearly 500 branches throughout Europe and the UK combined
- Industrial Electronic repair service
- Special Panel Builds
- Motor Rewinds

## SOLUTIONS

- Local customer site visits from the industry experts / partners
- FREE Energy saving surveys: Drives and Power Factor Correction
- Obsolescence survey and reporting
- All branch teams have regular industrial product training



WITH A VASTLY EXPERIENCED TEAM, YESSS INDUSTRIAL PROVIDES TECHNICAL ASSISTANCE WITH SPECIALISED INDUSTRIAL PRODUCTS AND SERVICES.

**AMTECS**

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**AXAIR**  
FANS UK LIMITED

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**BNthermic**

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**bolle**  
SAFETY

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**CABLETRAIL**

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**CPelectronics**  
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Doncaster Cables

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**EATON**

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**ecospill**  
in partnership with SCHÖLLER

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**eris**  
Industrial

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- Page 41: Multifunctional timer
- Page 46-55: Metal pushbuttons/selecter switches/pilot lamps/control stations
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## Bring this catalogue to life!

Introducing a new innovative way of advertising - Visualife<sup>AR</sup>. Throughout this catalogue are products that come alive when scanned using your smartphone or tablet using augmented reality.

With Visualife<sup>AR</sup>, your world can come to life in a very unique way!

## How to use the App

- 
**Download the FREE App**  
 Search for Visualife AR on the Apple App Store or Google Play.
- 
**Create a login**  
 Signing in will allow your scanned history to be stored for you to revisit.
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**Start scanning Visualife enabled images**  
 Scan within the cross hairs when you see the Visualife icon and watch the images come alive.





# INDUSTRIAL SERVICES AND SUPPORT

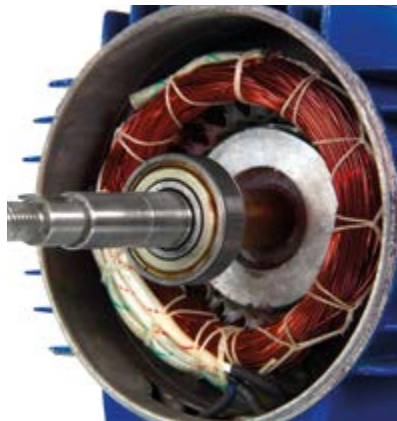
ENERGY SAVING SURVEYS AND SOLUTIONS



INDUSTRIAL ELECTRONIC REPAIRS



MOTORS AND REWINDS



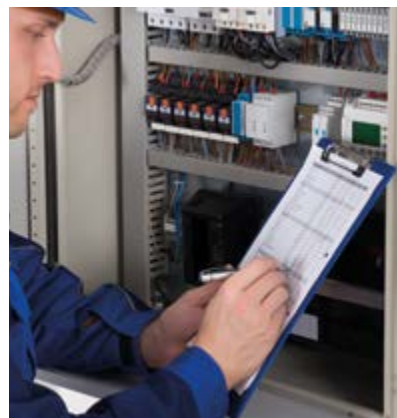
LASER ENGRAVING



INDUSTRIAL CALIBRATIONS



OBSOLESCENCE MANAGEMENT



SPECIAL PANEL BUILDS

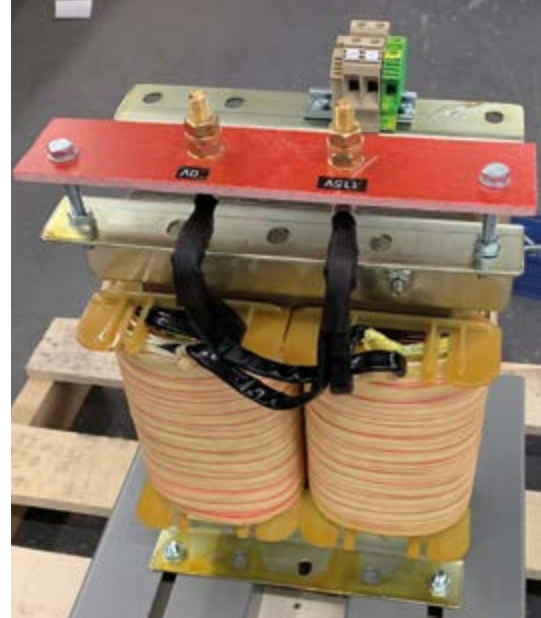




# SPECIAL TRANSFORMER BUILDS

As well as offering a standard range of transformers YESSS Industrial offers a custom build service to design and manufacture the exact units required.

- Portable tool transformers
- PCB, clamp, frame construction
- Construction site transformers
- Toroidal transformers
- 1 and 3 Phase transformers up to 200kVA
- Isolating and auto wound transformers
- Ferrite cored and coil winding
- Both laminated and toroidal units
- Control panel transformers
- Vacuum varnish impregnation and tropicalisation
- Chokes
- Refurbishment



# INDUSTRIAL ELECTRONIC REPAIRS AND SERVICES



- 1 Fast turnaround repair service (12 months warranty)
- 2 Free estimates  
– subject to condition and fault information
- 3 Free collection and delivery  
– subject to location and service required
- 4 Emergency / same day / out of hours / overnight repair service available (premium charge)  
– subject to conditions and parts availability
- 5 Site Engineer support available  
– subject to location and availability
- 6 Siemens PLC Engineer support available  
– subject to location and availability
- 7 Supply of New; Refurbished; Surplus and Obsolete Drives and HMIs
- 8 Repair and Supply of Servo Motors (via Partner)  
– 12 months warranty
- 9 Repair and Supply of Encoders (via Partner)  
– 12 months warranty
- 10 Siemens S5; S7 Classic and TIA Portal Training Courses (On Site or at selected locations)
- 11 Obsolete Parts and Equipment supply
- 12 OEM Repair and “Back to New” service available via selected partners

### Drive Repairs



### HMI and Touchscreen Repairs



### PLC Repairs



### Servo Drive Repairs



### Cleaning

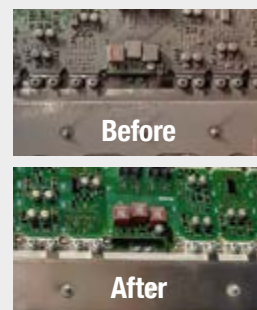


ABB • ALLEN BRADLEY • B&R AUTOMATION • BAULMULLER • BEIJER • BOSCH REXROTH  
CONTROL TECHNIQUES • DANFOSS • FANUC • LENZE • MITSUBISHI • MODICON • OMRON  
PRO-FACE • SIEMENS • TELEMECANIQUE • TEXAS INSTRUMENTS • UNIHOP • YASKAWA



# THE 'ONECALL' CONTRACT

For all your drive requirements, from supply, to 24/7 support, to rental.

- 24/7 Direct telephone access to our fully qualified engineers
- Immediate 'engineer to site' request
- Our unique 'first site visit fix' guarantee
- All variable speed drives installed on your site covered under one contract regardless of make, type and power rating
- Access to uk's largest stock of vsd's, spares and rental equipment
- Unlimited calls and site visits
- Drive service provider to major manufacturers



## UNIQUE RENTAL DRIVE SOLUTION

Emergency Drive Hire - Any Time, Any Place, Any Weather

Drive breakdown is a disastrous situation - lost production costs on average **£12,000** per hour. That means you need a back-up plan.

Our supplier has the largest stock of Variable Speed Drives for rental in Europe - our team of engineers are available 24/7, 365 days a year to get you back up and running quickly and efficiently if you suffer a drive breakdown.

- Weatherproof Enclosures can be kept indoor or outdoor
- 2000+ drives ex stock
- Up to 1.5MW, 400V, 690V and High Voltage options
- National Depots providing local stock & Engineer support
- 24/7 Delivery, Installation and Commissioning
- ABB & Schneider Rental Drives Available
- Enclosure Specification c/w Door Isolator, Local Controls, EMC Compliant, Emergency Stop, Door Mounted Keypad, Ultrasonic Level Controller, Float Switch Connection, Forward/Reverse Switch, Thermistor Relay Connection, Easy Colour coded Control Connection Rail



CONTACT YOUR LOCAL YES55 BRANCH

# ENERGY SMART



## Intelligent Metering for Business

## Energy Management Systems

Our tailored energy management system allows you to measure, monitor and manage your business' energy usage.

We help you to reduce your costs by understanding when and where you are using energy. Track progress with our simple reports, achieve regulatory compliance and ensure operational resilience with alerts for critical assets to prevent failures before they occur.

Save up to  
**40%**  
on your  
energy bills!

- Save money
- Alerts prevent failures
- Ensure compliance
- Simple reporting
- Reduce your carbon footprint
- Save energy

## Itemised billing

Traditional bills tell you that you've used X amount of kwh this month, so you must pay £Y.

At MeasureMyEnergy, we give you total visibility of when and where you are using energy.

- Easy to read
- Circuit level detail
- Fully customisable
- Multiple language and currency options available

Understand when and where energy is used

Turn this... ... into this!

**The BIG SIX ENERGY Company**

Account Number: 18263672x5  
Invoice Number: 4862993177

Date: 1st April 2019  
Next Reading Date: 30th April 2019  
Bill based on: Actual Meter Reading

### INVOICE

**Your charges**  
Your electricity charges this period

Your Billing Period	Rate	Units	Amount(£)
1st March 2019 - 31st March 2019			
Standard Rate Business Energy	20.1794	12057kWh	2,198.97
Standing Charge at 16.57p/kWh 31 days	60.1667	31	1.93
Climate Change Levy	0.000541	12057kWh	65.23
<b>Sub-Total</b>			<b>2,221.33</b>
VAT at 20%			444.27
<b>Total electricity charged during this period</b>			<b>£2,665.60</b>

What this means: Payment will be taken by Direct Debit on 30th April 2019.

**Measure My Energy**

Account Number: 18263672x5  
Invoice Number: 4862993177

MeasureMyEnergy Ltd  
Innovation House  
Chandlers Ford  
Hampshire  
SO53 4DR

Site Name: MME Southampton  
Bill Date: 1 April 2019  
Bill based on: Power Distribution Monitor  
Bill Period: 1 - 31 March 2019

### BILL ANALYSIS

Category	Percentage
Small power	15%
Lighting	22%
IT	24%
HVAC	39%

Category	Sub-Category	Amount
Small Power	Ground Floor Sockets	£5.35
	Demonstration Room	£31.98
	1st Floor - Floor Sockets	£94.61
	1st Floor - Dado Sockets	£183.67
	2nd Floor - Floor Sockets	£22.65
Lighting	Ground Floor	£26.34
	1st Floor	£251.52
	2nd Floor	£201.41
Stairwells & Halls		£3.14
<b>Sub-Total</b>		<b>£482.41</b>
IT	Server Room 1 - Commando 1	£413.33
	Server Room 1 - Commando 2	£223.97
	Server Room 2 - Commando 1	£196.19
	Server Room 2 - Commando 2	£2.20
	<b>Sub-Total</b>	
HVAC	Server Room	£283.29
	1st Floor	£11.36
	2nd Floor	£27.34
<b>Sub-Total</b>		<b>£321.99</b>

**How We Calculated Your Bill**

Total Electricity Used: 12057kWh @ 17.84p per kWh used	£2,198.97
Daily Standard Charge for 31 days @ 16.57p	£51.33
Climate Change Levy for 12057kWh @ 0.541p	£65.23
VAT @ 20%	£444.27
<b>Your total bill for this period</b>	<b>£2,665.60</b>

What do we monitor?



Electricity



Water



Temperature



Oil



## Access data anytime, anywhere

Our online portal gives you full access to real time analytics, whether you're in the office or on the move. With unlimited users, multiple sites and multi-language and currency customisation, you can monitor and manage energy usage on a global scale.

- Live data
- Easy to use
- Customised reporting
- Tailored alert function
- Working and non-working hours visibility



Detailed reporting

Simple, customisable dashboard



## Introducing the new Intelligent Power Meter (IPM)

- Slim, compact design
- Combines metering, power, data logging and communications
- CT looms for rapid installation
- No additional chassis required
- Access analytics on the move from mobile devices
- Wall mounted
- Available in 12, 24 and 36 Circuits
- Compatible with Ethernet, Wi-Fi and 4G LTE Mobile



# INDUSTRIAL SERVICES



## YESSS Industrial's expert partner in LV switchgear and controls

LV Power Solutions are a Schneider certified Panel Builder and provide a wide range of bespoke Low Voltage Switchgear solutions to industrial and commercial customers throughout the UK and the Channel Islands.



## Low Voltage Switchboards

LV Power Solutions manufacture compartmentalised main and sub-main switchboards with ratings from 250A to 6300A in varying forms of separation, both fixed and fully withdrawable.

All factory-built assemblies utilise major proprietary brands and fully comply with the 61439 and BS EN 61439-2 standards.

Our experienced team can offer a range of options dependant on specification, including;

- Automatic or manual change over systems for multiple supplies
- Restricted earth fault protection
- Integral power factor correction
- Surge protection

Utilising the highly dependable Schneider Prisma P System, LV Power can also offer full in-house design solutions and rapid manufacturing of group mounted switchboards up to 3200A, ensuring tight deadlines and budget demands are met every time.

Our documented quality systems ensure rigorous control of design, in-process inspection and testing, component and assembly traceability, final inspection and product certification.



**FREE**  
**TECH SUPPORT**  
**AND SITE SURVEYS**  
AVAILABLE ON REQUEST  
CONTACT YOUR  
LOCAL YESSS BRANCH





## Panel Boards

Some electrical installations may require a non-standard Panel board, with requirements for surge suppression equipment or PFC capacitors. These factory-built and tested boards offer all the convenience of a complete LV switchboard where space may not allow and can be manufactured to meet your site needs:

- Schneider Powerpact, Schneider I-Line, Eaton and Terasaki
- Up to 630A rating, 18 way TP+N
- Pre-wired meters for incomer & outgoing ways
- MCB boards wired integral
- Range of lightning and surge suppression equipment
- Integral PFC (up to 50kVAr) also available





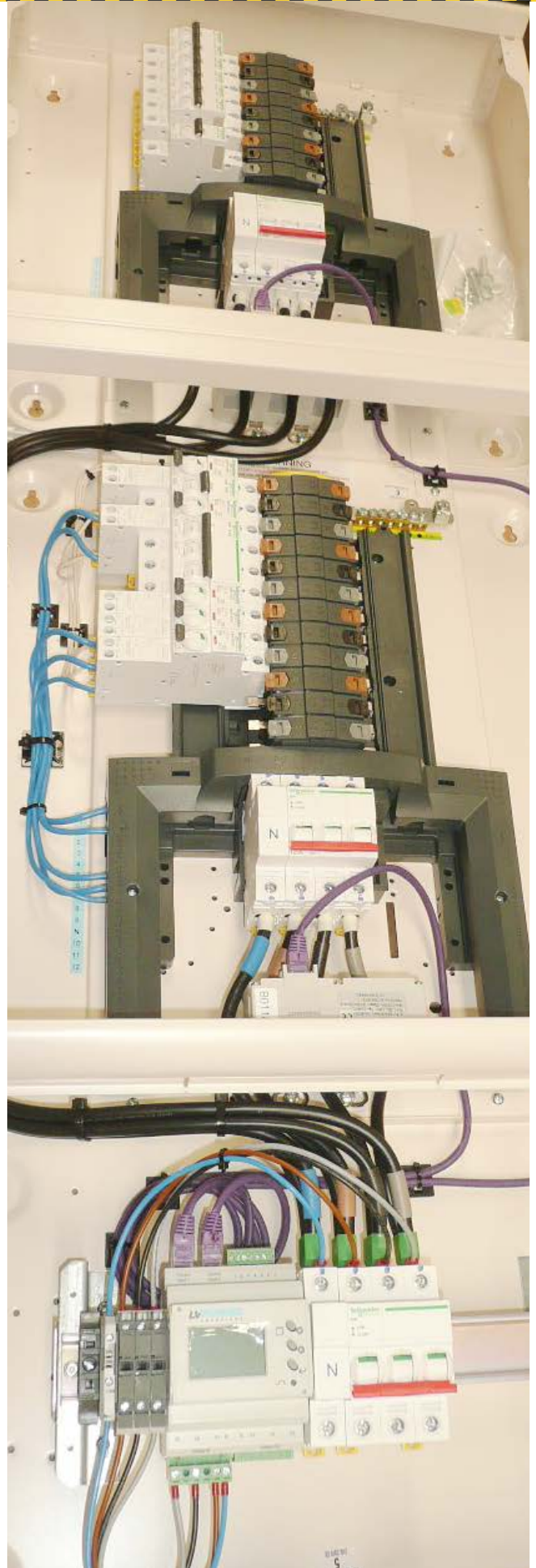
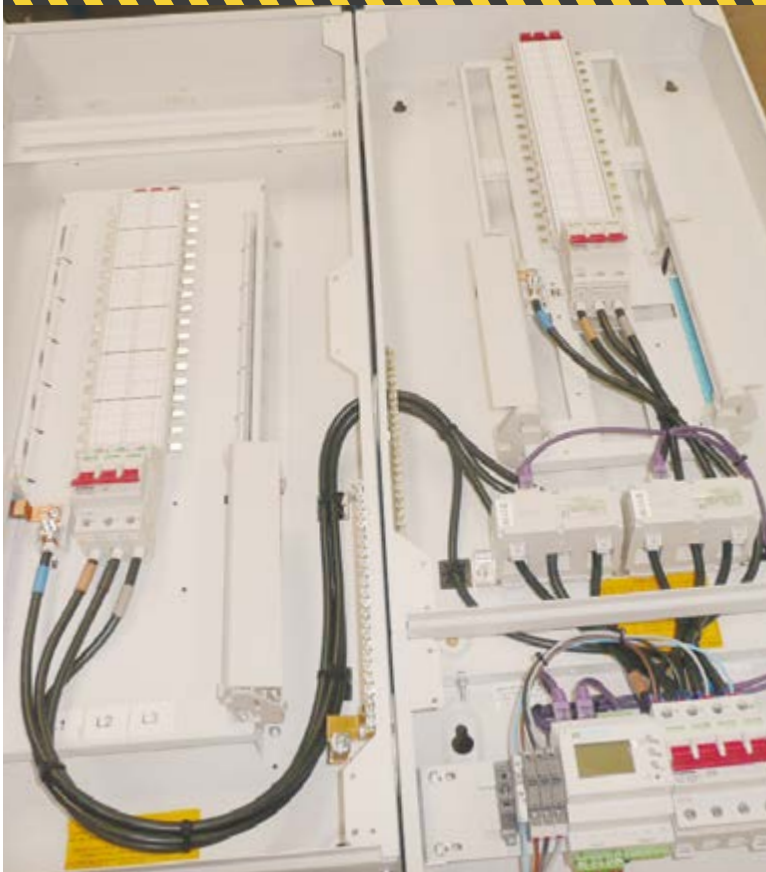


## Final Distribution

LV Power manufacture a wide range of electrical switchgear to meet the needs of the electrical contractor market. Distribution boards are built to order with a quick turn around and are ready to install; fully cabled and populated with devices, improving site installation time.

Specification options:

- Schneider Acti9, Schneider Isobar-P, Schneider IKQ and Eaton
- Combined Lighting & Power boards up to 250A rating
- Range of surge suppression equipment
- Top and bottom or side by side
- Digital metering using LV Power Solutions Multi-Function meter with modus
- Contactors for power or lighting circuits
- All circuits pre-wired to terminal rail for rapid site connection





## Service and Support

### Consultative approach

With a dedicated site engineering team, LV Power Solutions offer full site surveys before placement of order to ensure all value engineering options are considered at the conception stage of the project.

### Installation

LV Power panels can be transported, delivered, offloaded, installed and tested by our ECS/CSCS qualified engineers who have encountered and successfully dealt with some of the most challenging site installations.

### Modifications

As technology, legislation and demands on existing infrastructures change, an ever-popular option is to retrofit to existing equipment to increase capacity and improve reliability. Our experienced team are able to carry out modifications on site from fitting additional devices, replacing ageing ACBs/MCCBs, additional metering and PFC, giving clients full flexibility for the future. Our team are also able to carry out routine maintenance and essential service checks.

Partnerships you can trust:







# INDUSTRIAL CONTROLS

- 15 Direct On-Line Starters
- 19 Star Delta Starters
- 20 DC Injection Brakes
- 21 Overloads
- 22 Metal Enclosures
- 24 Motor Starters
- 25 Soft Starters
- 26 Contactors & Accessories
- 39 Relays
- 44 Level Controls & Float Switches
- 45 Metering Instruments
- 46 Metal Push Buttons & Selector Switches
- 49 Pilot Lamps
- 50 Indicator Lamps & Holders
- 51 Control Stations
- 54 Limit Switches
- 55 Foot Switches
- 56 Signal Towers & Beacons
- 57 Control Circuit Transformers
- 58 Low Voltage Inverter Drives
- 61 Enclosed Variable Speed Drives
- 63 Aluminium AC Induction Motors
- 66 Belts, Bearings & Chains
- 68 Surge Protection
- 70 Terminals
- 74 Marking Accessories
- 75 Connectors
- 77 Multipole Connectors
- 78 Crane Controls



# INDUSTRIAL CONTROLS • DIRECT ON-LINE STARTERS



## Direct On-Line Starters without Isolator

- Weatherproof IP55
- Pressed steel enclosure comes with removable lid
- Single phase or three phase
- Standard coil voltage: 50/60Hz
- Surface mounting
- Colour RAL7035 light grey
- Built in Start / Stop reset push buttons
- Hand reset thermal overload
- Provision for remote control
- 24V, 48V, 110V, 230V, 400V, 440V available on request
- Conforms to BS 60947

### 400V Version

COMPLETE STARTER PART NO.	STARTER BODY + REQUIRED THERMAL OVERLOAD PART NO.'s.	RATING 400V 3 PHASE		AC3 APPROX. FLC* AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
		kW	HP			FROM	TO
-	ERS400DL1 + ERS/1	0.25	0.33	0.9	Size 1	0.63	1
-	ERS400DL1 + ERS/1.6	0.37	0.5	1.3	Size 1	1	1.6
-	ERS400DL1 + ERS/1.6	0.56	0.75	1.6	Size 1	1	1.6
-	ERS400DL1 + ERS/2.5	0.75	1	1.8	Size 1	1.6	2.5
-	ERS400DL1 + ERS/4	1.1	1.5	2.6	Size 1	2.5	4
-	ERS400DL1 + ERS/4	1.5	2	3.4	Size 1	2.5	4
-	ERS400DL1 + ERS/6	2.2	3	5	Size 1	4	6
-	ERS400DL1 + ERS/8	3	4	6.5	Size 1	5.5	8
-	ERS400DL1 + ERS/10	3.7	5	8	Size 1	7	10
-	ERS400DL1 + ERS/10	4	5.5	8	Size 1	7	10
-	ERS400DL2 + ERS/13	5.5	7.5	11	Size 1	10	13
-	ERS400DL2 + ERS/18	7.5	10	15	Size 1	13	18
-	ERS400DL2 + ERS/18	9.3	12.5	18	Size 1	13	18
ERS400DL3NS	-	10	15	20	Size 1	18	25
ERS400DL3NS	-	11	20	22	Size 1	18	25
ERS400DL4CS	-	15	20	28	Size 2	23	30
ERS400DLA5QS	-	18.5	25	36	Size 2	28	40
ERS400DL5TS	-	26	35	48	Size 4	38	50



Enclosure size 1



Enclosure size 2

### 230V Version

COMPLETE STARTER PART NO.	STARTER BODY + REQUIRED THERMAL OVERLOAD PART NO.'s.	RATING 230V 1 PHASE		AC3 APPROX. FLC* AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
		kW	HP			FROM	TO
-	ERS230DL1 + ERS/1.6	0.07	0.08	1.1	Size 1	1	1.6
-	ERS230DL1 + ERS/1.6	0.10	0.13	1.5	Size 1	1	1.6
-	ERS230DL1 + ERS/2.5	0.12	0.16	1.7	Size 1	1.6	2.5
-	ERS230DL1 + ERS/2.5	0.18	0.25	2.1	Size 1	1.6	2.5
-	ERS230DL1 + ERS/4	0.25	0.33	2.6	Size 1	2.5	4
-	ERS230DL1 + ERS/4	0.37	0.5	3.6	Size 1	2.5	4
-	ERS230DL1 + ERS/6	0.56	0.75	5	Size 1	4	6
-	ERS230DL1 + ERS/8	0.75	1	6.7	Size 1	5.5	8
-	ERS230DL1 + ERS/10	1.1	1.5	9	Size 1	7	10
-	ERS230DL2 + ERS/13	1.5	2	12	Size 2	10	13
-	ERS230DL2 + ERS/18	2.2	3	17	Size 2	13	18
ERS230DL3NS	-	3	4	22	Size 1	18	25
ERS230DL3NS	-	3.7	5	25	Size 1	18	25
ERS230DL4CS	-	4	5.5	27	Size 2	23	30

\*FLC - Full Load Current Please note: see page 23 for enclosure dimensions

# INDUSTRIAL CONTROLS • DIRECT ON-LINE STARTERS



## Direct On-Line Starters with Isolator

- Weatherproof IP55
- Pressed steel enclosure comes with removable lid
- Single phase or three phase
- Complete with isolator
- Standard coil voltage: 50/60Hz
- Surface mounting
- Colour RAL7035 light grey
- Built in Start / Stop reset push buttons
- Hand reset thermal overload
- Provision for remote control
- 24V, 48V, 110V, 230V, 400V, 440V available on request
- Conforms to BS 60947

### 400V Version

COMPLETE STARTER PART NO.	STARTER BODY + REQUIRED THERMAL OVERLOAD PART NO's.	RATING 400V 3 PHASE		AC3 APPROX. FLC* AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
		kW	HP			FROM	TO
-	ERS400DL1/ISO + ERS/1	0.25	0.33	0.9	Size 2	0.63	1
-	ERS400DL1/ISO + ERS/1.6	0.37	0.5	1.3	Size 2	1	1.6
-	ERS400DL1/ISO + ERS/1.6	0.56	0.75	1.6	Size 2	1	1.6
-	ERS400DL1/ISO + ERS/2.5	0.75	1	1.8	Size 2	1.6	2.5
-	ERS400DL1/ISO + ERS/4	1.1	1.5	2.6	Size 2	2.5	4
-	ERS400DL1/ISO + ERS/4	1.5	2	3.4	Size 2	2.5	4
-	ERS400DL1/ISO + ERS/6	2.2	3	5	Size 2	4	6
-	ERS400DL1/ISO + ERS/8	3	4	6.5	Size 2	5.5	8
-	ERS400DL1/ISO + ERS/10	3.7	5	8	Size 2	7	10
-	ERS400DL1/ISO + ERS/10	4	5.5	8	Size 2	7	10
-	ERS400DL2/ISO + ERS/13	5.5	7.5	11	Size 2	10	13
-	ERS400DL2/ISO + ERS/18	7.5	10	15	Size 2	13	18
-	ERS400DL2/ISO + ERS/18	9.3	12.5	18	Size 2	13	18
ERS400DL3N/ISO	-	10	13.5	20	Size 2	18	25
ERS400DL3N/ISO	-	11	15	22	Size 2	18	25
ERS400DL4C/ISO	-	15	20	28	Size 3	23	30
ERS400DLA5Q/ISO	-	18.5	25	36	Size 4	28	40
ERS400DL5T/ISO	-	26	35	48	Size 4	28	40



Enclosure size 2

### 230V Version

COMPLETE STARTER PART NO.	STARTER BODY + REQUIRED THERMAL OVERLOAD PART NO's.	RATING 230V 1 PHASE		AC3 APPROX. FLC* AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
		kW	HP			FROM	TO
-	ERS230DL1/ISO + ERS/1.6	0.07	0.08	1.1	Size 2	1	1.6
-	ERS230DL1/ISO + ERS/1.6	0.10	0.13	1.5	Size 2	1	1.6
-	ERS230DL1/ISO + ERS/2.5	0.12	0.16	1.7	Size 2	1.6	2.5
-	ERS230DL1/ISO + ERS/2.5	0.18	0.25	2.1	Size 2	1.6	2.5
-	ERS230DL1/ISO + ERS/4	0.25	0.33	2.6	Size 2	2.5	4
-	ERS230DL1/ISO + ERS/4	0.37	0.5	3.6	Size 2	2.5	4
-	ERS230DL1/ISO + ERS/6	0.56	0.75	5	Size 2	4	6
-	ERS230DL1/ISO + ERS/8	0.75	1	6.7	Size 2	5.5	8
-	ERS230DL1/ISO + ERS/10	1.1	1.5	9	Size 2	7	10
-	ERS230DL2/ISO + ERS/13	1.5	2	12	Size 2	10	13
-	ERS230DL2/ISO + ERS/18	2.2	3	17	Size 2	13	18
ERS230DL3N/ISO	-	3	4	22	Size 2	18	25
ERS230DL3N/ISO	-	3.7	5	25	Size 2	18	25
ERS230DL4C/ISO	-	4	5.5	27	Size 3	23	30

\*FLC - Full Load Current Please note: see page 23 for enclosure dimensions



## Industrial

# Direct On-Line Reversing Starters without Isolator

- Weatherproof IP55
- Pressed steel enclosure comes with removable lid
- Single phase or three phase
- Standard coil voltage: 50/60Hz
- Surface mounting
- Colour RAL7035 light grey
- Built in Start / Stop reset push buttons
- Hand reset thermal overload
- Provision for remote control
- 24V, 48V, 110V, 230V, 400V, 440V available on request
- Conforms to BS 60947



Enclosure size 2

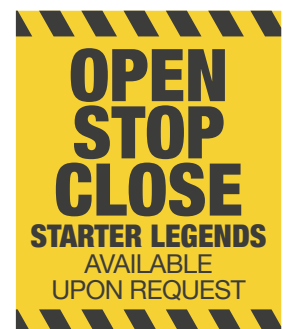
## 400V Version

STARTER BODY PART NO.	REQUIRED THERMAL OVERLOAD	RATING 400V 3 PHASE		AC3 APPROX. FLC AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
		kW	Hp			FROM	TO
ERS400DR1	ERS/1	0.25	0.33	0.9	Size 2	0.63	1
ERS400DR1	ERS/1.6	0.37	0.5	1.3	Size 2	1	1.6
ERS400DR1	ERS/1.6	0.56	0.75	1.6	Size 2	1	1.6
ERS400DR1	ERS/2.5	0.75	1	1.8	Size 2	1.6	2.5
ERS400DR1	ERS/4	1.1	1.5	2.6	Size 2	2.5	4
ERS400DR1	ERS/4	1.5	2	3.4	Size 2	2.5	4
ERS400DR1	ERS/6	2.2	3	5	Size 2	4	6
ERS400DR1	ERS/8	3	4	6.5	Size 2	5.5	8
ERS400DR1	ERS/10	3.7	5	8	Size 2	7	10
ERS400DR1	ERS/10	4	5.5	8	Size 2	7	10
ERS400DR1	ERS/13	5.5	7.5	11	Size 2	10	13
ERS400DR2	ERS/18	7.5	10	15	Size 2	13	18

## 230V Version

STARTER BODY PART NO.	REQUIRED THERMAL OVERLOAD	RATING 230V 1 PHASE		AC3 APPROX. FLC AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
		kW	Hp			FROM	TO
ERS230DR1	ERS/1.6	0.07	0.08	1.1	Size 2	1	1.6
ERS230DR1	ERS/1.6	0.10	0.13	1.5	Size 2	1	1.6
ERS230DR1	ERS/2.5	0.12	0.16	1.7	Size 2	1.6	2.5
ERS230DR1	ERS/2.5	0.18	0.25	2.1	Size 2	1.6	2.5
ERS230DR1	ERS/4	0.25	0.33	2.6	Size 2	2.5	4
ERS230DR1	ERS/4	0.37	0.5	3.6	Size 2	2.5	4
ERS230DR1	ERS/6	0.56	0.75	5	Size 2	4	6
ERS230DR1	ERS/8	0.75	1	6.7	Size 2	5.5	8
ERS230DR1	ERS/10	1.1	1.5	9	Size 2	7	10
ERS230DR1	ERS/13	1.5	2	12	Size 2	10	12

\*FLC - Full Load Current Please note: see page 23 for enclosure dimensions







## Industrial

### Direct On-Line Reversing Starters with Isolator

- Weatherproof IP55
- Pressed steel enclosure comes with removable lid
- Single phase or three phase
- Complete with isolator
- Standard coil voltage: 50/60Hz
- Colour RAL7035 light grey
- Surface mounting
- Built in Start / Stop reset push buttons
- Hand reset thermal overload
- Provision for remote control
- 24V, 48V, 110V, 230V, 400V, 440V available on request
- Conforms to BS 60947



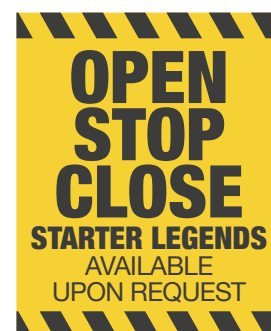
Enclosure size 3

### 400V Version

STARTER BODY PART NO.	REQUIRED THERMAL OVERLOAD	RATING 400V 3 PHASE		AC3 APPROX. FLC AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
		kW	Hp			FROM	TO
ERS400DR1/ISO	ERS/1	0.25	0.33	0.9	Size 3	0.63	1
ERS400DR1/ISO	ERS/1.6	0.37	0.5	1.3	Size 3	1	1.6
ERS400DR1/ISO	ERS/1.6	0.56	0.75	1.6	Size 3	1	1.6
ERS400DR1/ISO	ERS/2.5	0.75	1	1.8	Size 3	1.6	2.5
ERS400DR1/ISO	ERS/4	1.1	1.5	2.6	Size 3	2.5	4
ERS400DR1/ISO	ERS/4	1.5	2	3.4	Size 3	2.5	4
ERS400DR1/ISO	ERS/6	2.2	3	5	Size 3	4	6
ERS400DR1/ISO	ERS/8	3	4	6.5	Size 3	5.5	8
ERS400DR1/ISO	ERS/10	3.7	5	8	Size 3	7	10
ERS400DR1/ISO	ERS/10	4	5.5	8	Size 3	7	10
ERS400DR2/ISO	ERS/13	5.5	7.5	11	Size 3	10	13
ERS400DR2/ISO	ERS/18	7.5	10	15	Size 3	13	18

### 230V Version

STARTER BODY PART NO.	REQUIRED THERMAL OVERLOAD	RATING 230V 1 PHASE		AC3 APPROX. FLC AMPS	ENCLOSURE DIMENSIONS (H x W x D)	OVERLOAD RATING AMPS	
		kW	Hp			FROM	TO
ERS230DR1/ISO	ERS/1.6	0.07	0.08	1.1	Size 3	1	1.6
ERS230DR1/ISO	ERS/1.6	0.10	0.13	1.5	Size 3	1	1.6
ERS230DR1/ISO	ERS/2.5	0.12	0.16	1.7	Size 3	1.6	2.5
ERS230DR1/ISO	ERS/2.5	0.18	0.25	2.1	Size 3	1.6	2.5
ERS230DR1/ISO	ERS/4	0.25	0.33	2.6	Size 3	2.5	4
ERS230DR1/ISO	ERS/4	0.37	0.5	3.6	Size 3	2.5	4
ERS230DR1/ISO	ERS/6	0.56	0.75	5	Size 3	4	6
ERS230DR1/ISO	ERS/8	0.75	1	6.7	Size 3	5.5	8
ERS230DR1/ISO	ERS/10	1.1	1.5	9	Size 3	7	10
ERS230DR1/ISO	ERS/13	1.5	2	12	Size 3	10	12



\*FLC - Full Load Current Please note: see page 23 for enclosure dimensions

# INDUSTRIAL CONTROLS • STAR DELTA STARTERS



Industrial

## Star Delta Starters

- Weatherproof IP55
- Wye-Delta connected
- Pressed steel enclosure comes with removable lid, larger models have hinged door
- Three phase
- Standard coil voltage: 50/60Hz
- Surface mounting
- Colour RAL7035 light grey
- Built in Start / Stop reset push buttons
- Hand reset thermal overload
- Provision for remote control
- 24V, 48V, 110V, 230V, 400V, 440V available on request
- Conforms to BS 60947

Without Isolator



Enclosure size 3

With Isolator



Enclosure size 3

## 400V Version

PART NO (STARTER BODY) WITHOUT ISOLATOR	PART NO (STARTER BODY) WITH ISOLATOR	PART NO (THERMAL OVERLOAD)	RATING 400V 3 PHASE		AC3 APPROX. FLC AMPS	ENCLOSURE DIMENSIONS	OVERLOAD RATING AMPS	
			kW	Hp			FROM	TO
ERS400SD2	ERS400SD2/ISO	ERS/2.5	1.5	2	3.4	Size 3	2.7	4.3
ERS400SD2	ERS400SD2/ISO	ERS/4	2.2	3	5	Size 3	4.3	6.9
ERS400SD2	ERS400SD2/ISO	ERS/4	3	4	6.5	Size 3	4.3	6.9
ERS400SD2	ERS400SD2/ISO	ERS/6	3.7	5	8	Size 3	6.9	10.4
ERS400SD2	ERS400SD2/ISO	ERS/6	4	5.5	8	Size 3	6.9	10.4
ERS400SD2	ERS400SD2/ISO	ERS/8	5.5	7.5	11	Size 3	9.5	13.8
ERS400SD2	ERS400SD2/ISO	ERS/10	7.5	10	15	Size 3	12	17
ERS400SD2	ERS400SD2/ISO	ERS/13	9.3	12.5	18	Size 3	17	22
ERS400SD2	ERS400SD2/ISO	ERS/13	10	13.5	20	Size 3	17	22
ERS400SD2	ERS400SD2/ISO	ERS/13	11	15	21.3	Size 3	17	22
ERS400SD2	ERS400SD2/ISO	ERS/18	12.5	17.5	25	Size 3	22	30
ERS400SD2	ERS400SD2/ISO	ERS/18	15	20	28	Size 3	22	30

COMPLETE STARTER PART NO. (WITHOUT ISOLATOR)	COMPLETE START- ER PART NO. (WITH ISOLATOR)	PART NO (THERMAL OVERLOAD)	RATING 400V 3 PHASE		AC3 APPROX. FLC AMPS	ENCLOSURE DIMENSIONS (H x W x D)	OVERLOAD RATING AMPS	
			kW	Hp			FROM	TO
ERS400SD3N	ERS400SD3N/ISO	Not required†	18.5	25	36	Size 3	31	43
ERS400SD3N	ERS400SD3N/ISO	Not required†	22	30	39	Size 3	31	43
ERS400SD4C	ERS400SD4C/ISO	Not required†	30	40	52	Size 4	39	55
ERS400SDA5Q	ERS400SDA5Q/ISO	Not required†	37	50	69	Size 4	48	69
ERS400SD05T	ERS400SD05T/ISO	Not required†	45	60	79	400 x 300 x 200mm 600 x 400 x 200mm (ISO)	65	85
ERS400SD06U	ERS400SD06U/ISO	Not required†	55	75	96	500 x 400 x 200mm 600 x 400 x 200mm (ISO)	83	98
ERS400SD07W	ERS400SD07W/ISO	Not required†	75	100	138	500 x 400 x 200mm 600 x 400 x 300mm (ISO)	109	138
ERS400SD08P	ERS400SD08P/ISO	Not required†	90	125	156	600 x 500 x 200mm 600 x 400 x 300mm (ISO)	138	160

†FLC - Full Load Current. †Thermal overload not required already fitted inside these starters.

Please note: see page 23 for enclosure dimensions



## Industrial DC Injection Brakes for AC Electric Motors Driving Woodworking Machinery

Start, protect and safely stop standard rotating machines

- Controlled stopping for compliance to PUWER 98
- Waterproof IP55
- Suitable for up to 12 stops per hour
- Compact surface mounting enclosures for easy retrofitting
- Simple braking time and torque setting
- Pressed steel enclosure comes with removable lid
- Conforms to BS 60947



In DCM, DPM and DYM units then 'M' signifies 510 brake module fitted. For crosscut saws or similar, please omit the 'M' from the code to signify open power and control cards required to meet the increased stopping rates. These units are available as a special order.

Select the kW or Hp rating of your motor from the table below. This will guide you in the process of selecting the relevant starter body and overload to meet your requirements.

## Direct-on-Line Three Phase - 400V~50Hz

Typical applications: dimension and circular saws

PART NO (STARTER BODY)	RATING 400V 3 PHASE		APPROX. FLC AMPS	ENCLOSURE DIMENSIONS (H x W x D)
	kW	Hp		
ERS400DCM1H	2.2	3	4.5	184 x 184 x 149mm
ERS400DCM1J	3	0.4	6	184 x 184 x 149mm
ERS400DCM1K	4	5.5	7.5	184 x 184 x 149mm
ERS400DCM1L	5.5	7.5	12	184 x 184 x 149mm
ERS400DCM2M	7.5	10	18	184 x 184 x 149mm
ERS400DCM3N	11	15	25	305 x 285 x 159mm
ERS400DCM4C	15	20	32	400 x 400 x 210mm
ERS400DCM5S	22	30	39	400 x 400 x 210mm



## Direct-on-Line Single Phase - 230V~50Hz

Typical applications: circular saws and tension machines

PART NO (STARTER BODY)	RATING 400V 3 PHASE		APPROX. FLC AMPS	ENCLOSURE DIMENSIONS (H x W x D)
	kW	Hp		
ERS230DPM1H	0.5	0.67	5	184 x 184 x 149mm
ERS230DPM1L	1.5	2	12	184 x 184 x 149mm
ERS230DPM2M	2.2	3	16	184 x 184 x 149mm



## Star Delta Three Phase - 400V~50Hz

Typical applications: panel and rip saws

PART NO (STARTER BODY)	RATING 400V 3 PHASE		APPROX. FLC AMPS	ENCLOSURE DIMENSIONS (H x W x D)
	kW	Hp		
ERS400DYM1J	5.5	7.5	13	305 x 285 x 159mm
ERS400DYM1K	7.5	10	17	305 x 285 x 159mm
ERS400DYM1L	11	15	22	500 x 400 x 210mm
ERS400DYM2M	15	20	29	500 x 400 x 210mm
ERS400DYM3N	22	30	43	600 x 600 x 210mm



## DC Injection Brakes Module for use with new and existing rotating machinery

- Retrofit to integrate into existing controls
- Simple settings
- Direct On-Line systems
- 400V three phase supplies

PART NO	VOLTAGE	PHASE
ERSDNM400	400V	3 Phase

Complies with the Health & Safety Commission Approved Codes of Practice (ACoP) guidelines and PUWER 98.

**IMPORTANT NOTE:**

This product alone does not convert a DOL starter into a DC injection brake starter. Other products are required to assist the brake module, which do not come with the unit.

To discuss the application of these modules please call our technical team for assistance.



Industrial

## Thermal Overloads for use ERIS Starters

Manual re-set type



PART NO	OVERLOAD RATING FOR DOL STARTERS		OVERLOAD RATING FOR STAR DELTA STARTERS	
	FROM	TO	FROM	TO
ERS/1	0.63	1	-	-
ERS/1.6	1	1.6	-	-
ERS/2.5	1.6	2.5	2.7	4.3
ERS/4	2.5	4	4.3	6.9
ERS/6	4	6	6.9	10.4
ERS/8	5.5	8	9.5	13.8
ERS/10	7	10	12	17
ERS/13	10	13	17	22
ERS/18	13	18	22	31
ERS/25	18	25	31	43
ERS/32	23	32	39	55



Industrial



ERS404ENC

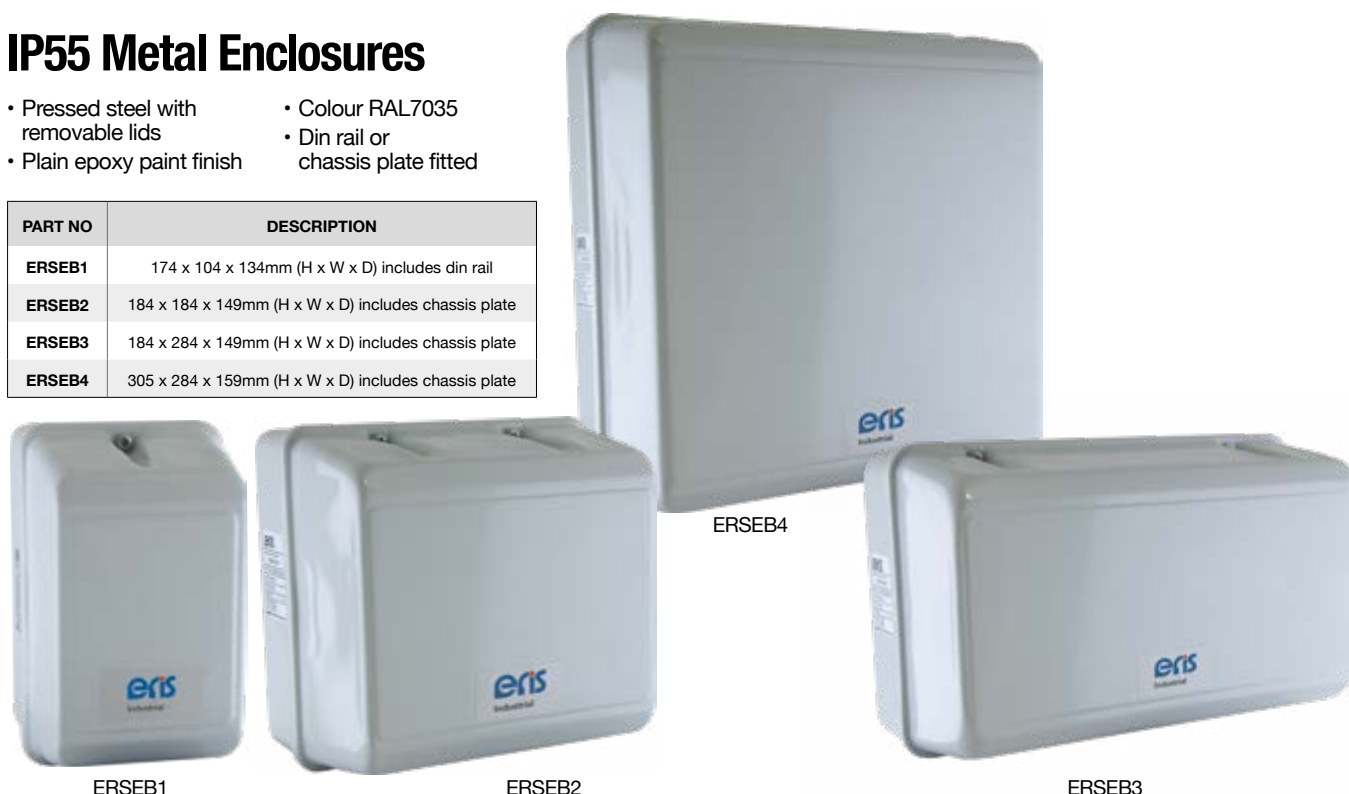
## Enclosed Contactors - 4 Pole Complete with Neutral Blocks and Oversize Enclosures for Ease of Wiring

PART NO	CURRENT RATING AC1	APPROX. kW AT 240V	DIMENSIONS (MM)		
			HEIGHT	WIDTH	DEPTH
ERS254ENC	25A	6	174	104	134
ERS404ENC	40A	9	184	184	149
ERS604ENC	60A	17	184	184	149
ERS1254ENC	125A	26	305	285	159

## IP55 Metal Enclosures

- Pressed steel with removable lids
- Plain epoxy paint finish
- Colour RAL7035
- Din rail or chassis plate fitted

PART NO	DESCRIPTION
ERSEB1	174 x 104 x 134mm (H x W x D) includes din rail
ERSEB2	184 x 184 x 149mm (H x W x D) includes chassis plate
ERSEB3	184 x 284 x 149mm (H x W x D) includes chassis plate
ERSEB4	305 x 284 x 159mm (H x W x D) includes chassis plate



ERSEB1

ERSEB2

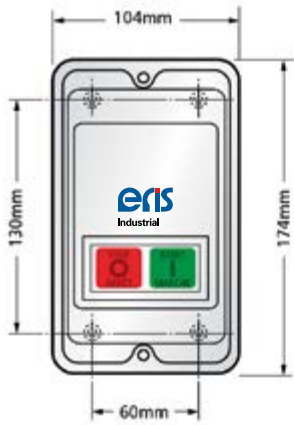
ERSEB4

ERSEB3

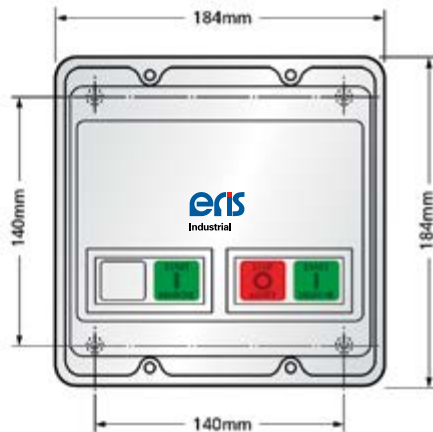
Finish: Plain Epoxy Paint, colour RAL 7035.

Fixing holes are provided on each size 4 x Ø4.5mm (see illustrations for dimensions). The maximum cable size which should be used with these enclosures is 25mm<sup>2</sup>. If the installation requires a larger cable size, please contact us and we will be happy to help.

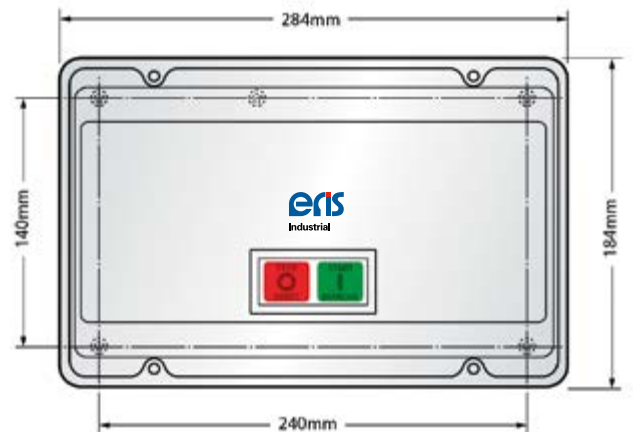
## Starter Enclosure Dimensions



Size 1



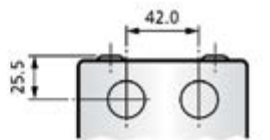
Size 2



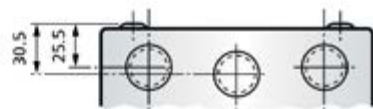
Size 3



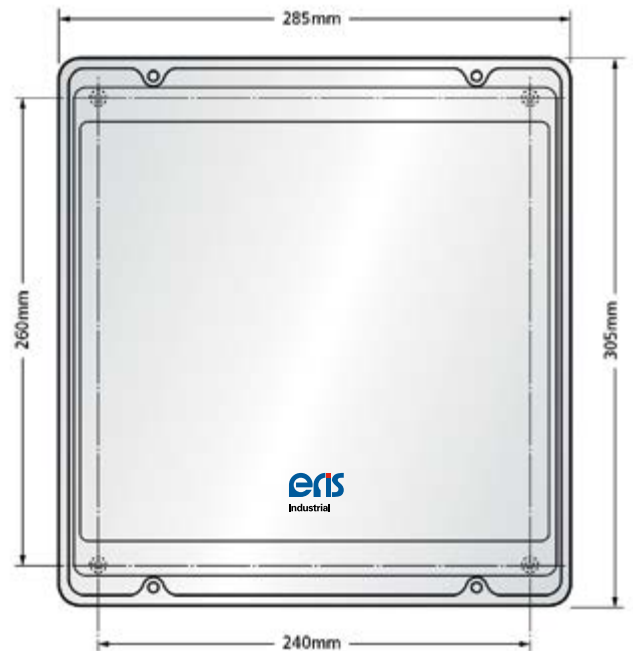
- Size 1 = 134mm
- Size 2 = 149mm
- Size 3 = 149mm
- Size 4 = 159mm



CONDUIT ENTRIES FOR ENCLOSURE SIZE 1  
4 KNOCKOUTS Ø20mm

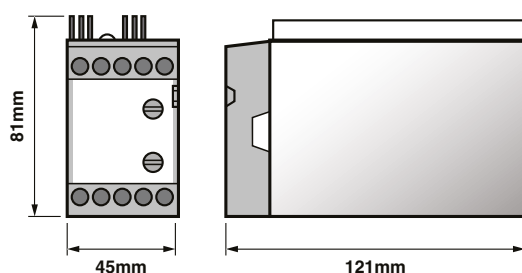


CONDUIT ENTRIES FOR ENCLOSURE SIZES 2, 3 & 4  
4 DUAL KNOCKOUTS Ø20/25mm  
2 DUAL KNOCKOUTS Ø25/32mm



Size 4

## DC Injection Brake Module Dimensions







Industrial

## DOL Manual Motor Starters

Range up to 32A 15kW



Latching (not soft start)  
Current setting dial

- Thermal and short circuit protection of AC electric motors with power up to 15kW (380 / 440V) 32A, it can also be used as a main switch
- Simple snap fitting on 35mm din rail



PART NO	DESCRIPTION
ERSMMS016	0.10 - 0.16A
ERSMMS025	0.16 - 0.25A
ERSMMS04	0.25 - 0.40A
ERSMMS063	0.40 - 0.63A
ERSMMS1	0.63 - 1.00A
ERSMMS1.6	1.00 - 1.60A
ERSMMS2.5	1.60 - 2.50A
ERSMMS4	2.50 - 4.00A
ERSMMS6.3	4.00 - 6.30A
ERSMMS10	6.00 - 10.00A
ERSMMS14	9.00 - 14.00A
ERSMMS18	13.00 - 18.00A
ERSMMS23	17.00 - 23.00A
ERSMMS25	20.00 - 25.00A
ERSMMS32	24.00 - 32.00A

## Manual Motor Starter Accessories



	PART NO	DESCRIPTION
1	ERSMMSENC	IP55 enclosure for ERSMMS 0.1 - 32A
2	ERSMMSAUX11	Auxiliary contact 1N/O + 1N/C (Top Mount)
	ERSMMSAUX20	Auxiliary contact 2 N/O (Top Mount)
3	ERSMMSAUX11SM	Auxiliary Contact 1N/O + 1N/C (Side Mount)
	ERSMMSAUX20SM	Auxiliary Contact 2N/O (Side Mount)
4	ERSMMSU24	Under voltage trip 24V (Side Mount)
	ERSMMSU110	Under voltage trip 110V (Side Mount)
	ERSMMSU240	Under voltage trip 220-240V (Side Mount)
	ERSMMSU415	Under voltage trip 380-415V (Side Mount)

PART NO	SETTING RANGE (A)	OPERATING CURRENT OF SHORT- CIRCUIT RELEASE (A)
ERSMMS016	0.1-0.16A	1.9
ERSMMS025	0.16-0.25A	2.6
ERSMMS04	0.25-0.4A	4.4
ERSMMS063	0.4-0.63A	8
ERSMMS1	0.63-0.1A	11
ERSMMS1.6	0.1-1.6A	19
ERSMMS2.5	1.6-2.5A	30
ERSMMS4	2.5-4A	42
ERSMMS6.3	4-6.3A	69
ERSMMS10	6.3-10A	110
ERSMMS14	10-14A	210
ERSMMS18	14-18A	210
ERSMMS23	18-23A	220
ERSMMS25	20-25A	330
ERSMMS32	25-32A	330



## ADXL Soft Starters

- For standard and heavy-duty applications
- With built-in bypass relay
- 100-240VAC auxiliary power supply
- Start control from dry contact



ADXL0030600  
ADXL0060600



ADXL0075600  
ADXL0115600



ADXL0135600  
ADXL0162600



ADXL0195600  
ADXL0320600

PART NO	IEC RATED STARTER CURRENT LE AT 400V (A)	MOTOR RATED POWER ≤40°C AT 400V	
		kW	HP
ADXL0018600	9-18	4.0-7.5	10
ADXL0030600	15-30	7.5-15	15
ADXL0045600	23-45	11-22	25
ADXL0060600	30-60	15-30	30
ADXL0075600	38-75	18.5-37	40
ADXL0085600	43-85	22.5-45	50
ADXL0115600	58-115	27.5-55	60
ADXL0135600	68-135	37.5-75	75
ADXL0162600	81-162	45-90	75
ADXL0195600	98-195	55-110	100
ADXL0250600	125-250	66-132	150
ADXL0320600	160-320	80-160	200

## Accessories

PART NO	DESCRIPTION
CX01	USB connection dongle PC - ADXL with optical connector for programming, data download, diagnostics and firmware update
CX02	Wi-fi connection dongle PC - ADXL for data download, programming, diagnostics and cloning
EXCRDU1	Remote keypad, LCD display with touchscreen, 128 x 112 pixel, IP65 protection
EXC1042	RS485 communication board
EXCCON1	RS485/Ethernet converter, 12-48NDC, including DIN mounting guide kit
EXCM3G01	RS485 gateway, 3G modem, 9.5-27VAC/9.5-35VDC, including antenna and programming cable
EXP8003	DIN guide mount kit for ADXL0030 - ADXL0115
EXP8004	Fan for ADXL0030 - ADXL0115 (codes ADXL0075, ADXL0115 max. of two EXP80 04 fans)



Part No. CX01



Part No. EXC1042



## Contactors BG and BF Series



Mini-contactors  
BG09 - BG12

le (AC3) ≤440V AT ≤550C [A]	MAXIMUM EC POWER AT ≤550C (AC3) 400V [kW]	IEC OPERATING CURRENT ITH (AC1) ≤400C [A]	AUX CONTACTS NO NC		COIL VOLTAGE	THREE-POLE CONTACTORS PRODUCT NO	FOUR-POLE CONTACTORS PRODUCT NO (EXCLUDES AUXILIARY CONTACTS)
9	4	20	-	1	24VAC	11BG0901A024	11BG09T4A024 11BG09T4A110 11BG09T4A230 11BG09T4A400 11BG09T4D024
			-	1	110VAC	11BG0901A110	
			-	1	230VAC	11BG0901A230	
			-	1	400VAC	11BG0901A400	
			-	1	24VDC	11BG0901D024	
9	4	20	1	-	24VAC	11BG0910A024	
			1	-	110VAC	11BG0910A110	
			1	-	230VAC	11BG0910A230	
			1	-	400VAC	11BG0910A400	
			1	-	24VDC	11BG0910D024	
12	5.7	20	-	1	24VAC	11BG1201A024	-
			-	1	110VAC	11BG1201A110	-
			-	1	230VAC	11BG1201A230	-
			-	1	400VAC	11BG1201A400	-
			-	1	24VDC	11BG1201D024	-
12	5.7	20	1	-	24VAC	11BG1210A024	-
			1	-	110VAC	11BG1210A110	-
			1	-	230VAC	11BG1210A230	-
			1	-	400VAC	11BG1210A400	-
			1	-	24VDC	11BG1210D024	-



Size 1 Contactor  
BF09 - BF25

9	4.2	25	-	1	24VAC	BF0901A024	BF09T4A024 BF09T4A110 BF09T4A230 BF09T4A400 BF09T4D024
			-	1	110VAC	BF0901A110	
			-	1	230VAC	BF0901A230	
			-	1	400VAC	BF0901A400	
			-	1	24VDC	BF0901D024	
9	4.2	25	1	-	24VAC	BF0910A024	
			1	-	110VAC	BF0910A110	
			1	-	230VAC	BF0910A230	
			1	-	400VAC	BF0910A400	
			1	-	24VDC	BF0910D024	
12	5.7	28	-	1	24VAC	BF1201A024	BF12T4A024 BF12T4A110 BF12T4A230 BF12T4A400
			-	1	110VAC	BF1201A110	
			-	1	230VAC	BF1201A230	
			-	1	400VAC	BF1201A400	
			-	1	24VDC	BF1201D024	
12	5.7	28	1	-	24VAC	BF1210A024	
			1	-	110VAC	BF1210A110	
			1	-	230VAC	BF1210A230	
			1	-	400VAC	BF1210A400	
			1	-	24VDC	BF1210D024	
18	7.5	32	-	1	24VAC	BF1801A024	BF18T4A024 BF18T4A110 BF18T4A230 BF18T4A400 BF18T4D024
			-	1	110VAC	BF1801A110	
			-	1	230VAC	BF1801A230	
			-	1	400VAC	BF1801A400	
			-	1	24VDC	BF1801D024	
18	7.5	32	1	-	24VAC	BF1810A024	
			1	-	110VAC	BF1810A110	
			1	-	230VAC	BF1810A230	
			1	-	400VAC	BF1810A400	
			1	-	24VDC	BF1810D024	
25	12.5	32	-	1	24VAC	BF2501A024	-
			-	1	110VAC	BF2501A110	-
			-	1	230VAC	BF2501A230	-
			-	1	400VAC	BF2501A400	-
			-	1	24VDC	BF2501D024	-
25	12.5	32	1	-	24VAC	BF2510A024	-
			1	-	110VAC	BF2510A110	-
			1	-	230VAC	BF2510A230	-
			1	-	400VAC	BF2510A400	-
			1	-	24VDC	BF2510D024	-



# Contactors BG and BF Series



Size 2 Contactor  
BF26 - BF38

I <sub>e</sub> (AC3) ≤440V AT ≤550C [A]	MAXIMUM EC POWER AT ≤550C (AC3) 400V [kW]	IEC OPERATING CURRENT I <sub>TH</sub> (AC1) ≤400C [A]	AUX CONTACTS		COIL VOLTAGE	THREE-POLE CONTACTORS ORDER CODE	FOUR-POLE CONTACTORS ORDER CODE (EXCLUDES AUXILIARY CONTACTS)
			NO	NC			
26	13	45	-	-	24VAC	BF2600A024	BF26T4A024
			-	-	110VAC	BF2600A110	BF26T4A110
			-	-	230VAC	BF2600A230	BF26T4A230
			-	-	400VAC	BF2600A400	BF26T4A400
			-	-	24VDC	BF2600D024	BF26T4D024
32	16	56	-	-	24VAC	BF3200A024	-
			-	-	110VAC	BF3200A110	-
			-	-	230VAC	BF3200A230	-
			-	-	400VAC	BF3200A400	-
			-	-	24VDC	BF3200D024	-
38	18.5	56 (60)	-	-	24VAC	BF3800A024	BF38T4A024
			-	-	110VAC	BF3800A110	BF38T4A110
			-	-	230VAC	BF3800A230	BF38T4A230
			-	-	400VAC	BF3800A400	BF38T4A400
			-	-	24VDC	BF3800D024	BF38T4D024



Size 3 Contactor  
BF40 - BF80

40	18.5	70	-	-	24V	BF4000A024	BF40T4A024
			-	-	110V	BF4000A110	BF40T4A110
			-	-	230V	BF4000A230	BF40T4A230
			-	-	400V	BF4000A400	BF40T4A400
			-	-	24VAC/DC	BF4000E024	-
50	22	90	-	-	24V	BF5000A024	BF50T4A024
			-	-	110V	BF5000A110	BF50T4A110
			-	-	230V	BF5000A230	BF50T4A230
			-	-	400V	BF5000A400	BF50T4A400
			-	-	24VAC/DC	BF5000E024	-
65	30	100	-	-	24V	BF6500A024	BF65T4A024
			-	-	110V	BF6500A110	BF65T4A110
			-	-	230V	BF6500A230	BF65T4A230
			-	-	400V	BF6500A400	BF65T4A400
			-	-	24VAC/DC	BF6500E024	BF65T4E024
80	45	115	-	-	24V	BF8000A024	BF80T4A024
			-	-	110V	BF8000A110	BF80T4A110
			-	-	230V	BF8000A230	BF80T4A230
			-	-	400V	BF8000A400	BF80T4A400
			-	-	24VAC/DC	BF8000E024	BF80T4E024



Size 4 Contactor  
BF95 - BF115

95	50	125	-	-	24V	BF9500A024	BF95T4A024
			-	-	110V	BF9500A110	BF95T4A110
			-	-	230V	BF9500A230	BF95T4A230
			-	-	400V	BF9500A400	BF95T4A400
			-	-	24VAC/DC	BF9500E024	BF95T4E024
115	55	160	-	-	24V	BF11500A024	BF115T4A024
			-	-	110V	BF11500A110	BF115T4A110
			-	-	230V	BF11500A230	BF115T4A230
			-	-	400V	BF11500A400	BF115T4A400
			-	-	24VAC/DC	BF11500E024	BF115T4E024
150	75	165	-	-	24V	BF15000A024	BF150T4A024
			-	-	110V	BF15000A110	BF150T4A110
			-	-	230V	BF15000A230	BF150T4A230
			-	-	400V	BF15000A400	BF150T4A400
			-	-	24VAC/DC	BF15000E024	BF150T4E024



## Contactors BF Series Accessories



BFX5000  
BFX5300  
BFX5400

BFX5001  
BFX5301  
BFX5401



BFX77



BFX31  
BFX32



11BA135  
11BA235

11BA435

PART NO	DESCRIPTION
<b>MECHANICAL INTERLOCK</b>	
BFX5000	Side mount for BF00, BF09...BF38
BFX5001	Side mount for 2NC contacts for BF00, BF09...BF38
BFX5002	Front mount, low profile for BF00, BF09...BF38
BFX5300	Side mount for BF40...BF80
BFX5301	Side mount with 2NC contacts for BF40...BF80 A/E
BFX5303	Front mount for BF40...BF80
BFX5400	Side mount for BF85...BF150
BFX5401	Side mount with 2NC contacts for BF85...BF150 A/E
BFX5403	Front mount for BF85...BF150
<b>QUICK CONNECT SURGE SUPPRESSORS FOR BF00A, BF09A...BF80A CONTACTORS</b>	
BFX77048	≤48VAC/DC (Varistor)
BFX77125	48...125VAC/DC (Varistor)
BFX77240	125...240VAC/DC (Varistor)
<b>RIGID CONNECTING KITS FOR THREE-POLE REVERSING CONTACTOR ASSEMBLY</b>	
BFX3101	For contactors BF09...BF25 side by side with BFX50 02 and BFX50 03 mechanical interlock
BFX3102	For contactors BF09...BF25 side by side with BFX50 00 and BFX50 01 mechanical interlock
BFX3201	For contactors BF26...BF38 side by side with BFX50 mechanical interlock
<b>RIGID CONNECTING KITS FOR STAR-DELTA STARTERS</b>	
BFX3131	For contactors BF09...BF25
BFX3231	For contactors BF26...BF38
BFX3232	For contactors BF26...BF38 BF09...BF25
<b>PARALLELING LINKS</b>	
11BA135	2 poles for contactors BF09...BF25 types
11BA235	2 poles for contactors BF26...BF38 types
11BA435	3 poles for contactors BF95...BF110 types
<b>ONE-POLE ENLARGED TERMINALS</b>	
11G231	1 x 6mm <sup>2</sup> for contactors BF09...BF25 types
11G232	1 x 16mm <sup>2</sup> for contactors BF26...BF38 types

## Contactors BG Series Accessories



11 BGX10...(02,22,20)



11 BGX50 00

PART NO	DESCRIPTION
<b>AUXILIARY CONTACTS. SCREW TERMINALS</b>	
11BGX1002	2NC
11BGX1011	1NO + 1NC
11BGX1020	2NO
11BGX1004	4NC
11BGX1013	1NO + 3NC
11BGX1022	2NO + 2NC
11BGX1031	3NO + 1NC
11BGX1040	4NO
<b>MECHANICAL INTERLOCK</b>	
11BGX5000	For BG...A and BG...D
<b>QUICK CONNECT SURGE SUPPRESSORS</b>	
11BGX77048	≤48VAC/DC (Varistor)
11BGX77125	48...125VAC/DC (Varistor)
11BGX77240	125...240VAC/DC (Varistor)

## Contactors BF Series Accessories



BFX10



BFX10



BFX12

11 G485  
11 G486  
11 G487



PART NO	DESCRIPTION
<b>AUXILIARY CONTACTS WITH FRONT CENTER MOUNTING. SCREW TERMINALS</b>	
11BFX1002	2NC
11BFX1011	1NO + 1NC
11BFX1020	2NO
11BFX1004	4NC
11BFX1013	1NO + 3NC
11BFX1022	2NO + 2NC
11BFX1031	3NO + 1NC
11BFX1040	4NO
<b>AUXILIARY CONTACTS WITH LOW SIDE MOUNTING. SCREW TERMINALS</b>	
BFX1202	2NC for BF00, BF09...BF80
BFX1211	1NO + 1NC for BF00, BF09...BF80
BFX1220	2NO for BF00, BF09...BF80
<b>DELAYED AUXILIARY CONTACTS 1NO + 1NC (PNEUMATIC OPERATION) ON ENERGISATION FOR FRONT CENTER MOUNTING. SCREW TERMINALS</b>	
11G4853	3s
11G4856	6s
11G48515	15s
11G48530	30s
11G48560	60s
11G485120	120s
<b>DELAYED AUXILIARY CONTACTS 1NO + 1NC (PNEUMATIC OPERATION) ON DE-ENERGISATION FOR FRONT CENTER MOUNTING. SCREW TERMINALS</b>	
11G4863	3s
11G4866	6s
11G48615	15s
11G48630	30s
11G48660	60s
11G486120	120s
11G487	70ms





## Contactors B Series



B115 - B630



B1250 - B1600

Ie (AC3) ≤440V AT ≤55°C	MAXIMUM EC POWER AT ≤55°C (AC3) 400V	IEC OPERATING CURRENT ITH (AC1) ≤40°C	AUX CONTACTS		COIL VOLTAGE	THREE-POLE CONTACTORS ORDER CODE	FOUR-POLE CONTACTORS ORDER CODE
			NO	NC			
110	61	160	-	-	24V	11B1150024	11B11540024
			-	-	110V	11B11500110	11B115400110
			-	-	230V	11B11500220	11B115400220
			-	-	400V	11B11500380	11B115400380
150	80	250	-	-	24V	11B1450024	11B14540024
			-	-	110V	11B14500110	11B145400110
			-	-	230V	11B14500220	11B145400220
			-	-	400V	11B14500380	11B145400380
185	100	275	-	-	24V	11B1800024	11B18040024
			-	-	110V	11B18000110	11B180400110
			-	-	230V	11B18000220	11B180400220
			-	-	400V	11B18000380	11B180400380
265	140	350	-	-	24V	11B2500024	11B25040024
			-	-	110V	11B25000110	11B250400110
			-	-	230V	11B25000220	11B250400220
			-	-	400V	11B25000380	11B250400380
320	170	450	-	-	24V	11B3100024	11B31040024
			-	-	110V	11B31000110	11B310400110
			-	-	230V	11B31000220	11B310400220
			-	-	400V	11B31000380	11B310400380
420	225	550	-	-	24V	11B4000024	11B40040024
			-	-	110V	11B40000110	11B400400110
			-	-	230V	11B40000220	11B400400220
			-	-	400V	11B40000380	11B400400380
520	290	700	-	-	110V	11B50000110	11B500400110
			-	-	230V	11B50000220	11B500400220
			-	-	400V	11B50000380	11B500400380
630	335	800	-	-	110V	11B60000110	11B600400110
			-	-	230V	11B60000220	11B600400220
			-	-	400V	11B60000380	11B600400380
-	For AC1/ Resistive duties only	1000	-	-	110V	11B630100000110	11B6301000400110
-			-	230V	11B630100000220	11B6301000400220	
-			-	400V	11B630100000380	11B6301000400380	
-	For AC1/ Resistive duties only	1250	-	-	110V	11B125024110	11B1250424110
-			-	230V	11B125024220	11B1250424220	
-	For AC1/ Resistive duties only	1600	-	-	110V	11B160024110	11B1600424110
-			-	230V	11B160024220	11B1600424220	

## Contactors B Series Accessories



11 G350 - 11 G354



11 G350 - 11 G354

PART NO	DESCRIPTION
<b>AUXILIARY CONTACTS, FASTON TERMINALS, SIDE MOUNTING</b>	
11G350	2NO + 1NC or 1NO + 2NC reversible
11G354	1NO + 1NC
<b>MECHANICAL INTERLOCK</b>	
11G355	Side by side
<b>POWER TERMINAL PROTECTION</b>	
11G360	For contactor B115
11G361	For contactors B145-B180
11G363	For contactors B250-B310-B400
<b>COIL ASSEMBLY (COIL, RECTIFIER AND COIL PROTECTION)</b>	
11BA154	B115-B145-B180
11BA1671	B250-B310-B400
11BA1796	B500-B630-B630 1000, B1250-B1600

# Thermal Overload Relays for BG and BF Contactors

PART NO	ADJUSTMENT RANGE [A]	THREE PHASE MOTOR AT 400V DOL [kW]	THREE PHASE MOTOR AT 400V STAR DELTA [kW]
<b>Manual resetting. Direct mounting on BG09, BG12 Mini Contactors</b>			
RF91	0.6 - 1	0.37	-
RF91V5	0.9 - 1.5	0.55	-
RF92V3	1.4 - 2.3	0.75	-
RF933	2 - 3.3	1.1	-
RF95	3 - 5	1.5	-
RF975	4.5 - 7.5	2.2	-
RF910	6 - 10	4.0	-
RF915	9 - 15	5.5	-
<b>Manual or Automatic resetting. Direct mounting on BF09 - BF38 Contactors</b>			
RF380100	0.63 - 1	0.25	-
RF380160	1 - 1.6	0.55	-
RF380250	1.6 - 2.5	0.75	-
RF380400	2.5 - 4	1.5	2.2 - 3
RF380650	4 - 6.5	2.2	4
RF381000	6.3 - 10	4	5.5 - 7.5
RF381400	9 - 14	5.5	11
RF381800	13 - 18	7.5	15
RF382300	17 - 23	11	18.5
RF382500	20 - 25	11	22
RF383200	24 - 32	15	30
RF383800	32 - 38	18.5	30
RF3804	Independent mounting, screw fix or DIN rail mount		
<b>Manual resetting. Direct mounting on BF40..BF80 contactors (BF80..A and E..type).</b>			
RF823300	20 - 33	18.5	22
RF824200	28 - 42	22	30
RF825000	35 - 50	22	45
RF826500	46 - 65	30	55
RF828200	60 - 82	37	-
<b>Manual resetting. Direct mounting on BF95..BF110 contactors.</b>			
RF110082	60 - 82	37	75
RF110095	70 - 95	45	-
RF110110	90 - 110	55	-
11G270	Independent mounting for RF82 and RF110 overloads		
<b>RFE electronic overload relay for use with BF09-BF38 contactors. Manual or Auto resetting. RFE110 for independent, manual or auto reset</b>			
RFE450200	0.4-2	0.12-0.75	-
RFE450800	1.6-8	0.75-3	2.2-4
RFE453200	6.4-32	3-15	5.5-22
RFE110110	22-110	11-55	22-110



11RF9



RF38



RF82



11RF953



RFE110



RFE45



## Industrial Contactor Fact File

- IEC 60947-4-1 / EN 60947-4-1
- CE
- IP20 rated
- Din rail or screw mounting
- Operating temperature up to 55°C
- Clearly marked power and auxiliary terminals
- Blank identification tag for marking
- Common coils for same frame size contactors
- Easy front accessibility for coil replacement



### AC & DC Range Contactor Dimensions

AMP	HEIGHT	3 POLE WIDTH	4 POLE WIDTH	DEPTH AC	DEPTH DC
9-12A	74mm	45mm	45mm	80mm	115mm
18A	74mm	45mm	-	85mm	120mm
25A	84mm	56mm	56mm	93mm	130mm
32A	84mm	56mm	-	98mm	135mm
40-65A	127mm	75mm	85mm	114mm	171mm
80A	127mm	85mm	96mm	125mm	181mm
95A	127mm	85mm	-	125mm	-

### AC Contactor Range Average AC Coil Consumption 50 / 60Hz

CONTACTOR 50/60HZ	ERSCR CONTROL RELAY	ERSA-09 TO 18	ERSA-25 TO 38	ERSA-40 TO 95
Pull In / Holding	70 / 8VA	70 / 8VA	100 / 8.5VA	245 / 26VA

### DC Contactor Range Average DC Coil Consumption

DC CONTACTOR	ERSD-09 TO 18	ERSD-25 TO 38	ERSD-40 TO 80
Pull In / Holding	9 / 9W	11 / 11W	22 / 22W

CONTACTOR OPERATING TIMES	CLOSING TIMES (MILLISECONDS)	OPENING TIMES (MILLISECONDS)
ERSA-09 / 12 / 18	12 - 22	4 - 12
ERSA-25 / 32 / 38	15 - 24	5 - 19
ERSA-40 / 50 / 65	20 - 26	8 - 12
ERSA-80 / 95	20 - 35	6 - 20





## 3 Pole Contactors with AC Coils

- CSA, UL Listed, EN 60947-4-1
- Maximum rated operational voltage 690V



**ERSA & ERSF  
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\*State coil voltage reference when ordering with **1** for 24VAC, **2** for 48VAC, **3** for 110VAC, **4** for 230VAC and **5** for 415VAC

Example: To purchase a 230VAC 32A 3 Pole 1N/O Aux, order Part No. **ERSA-32104**

PART NO	DESCRIPTION	AC1 RATING	AC3 RATING	kW RATING
ERSA-0910*	3 Pole 1N/O Aux	25A	9A	4
ERSA-0901*	3 Pole 1N/C Aux	25A	9A	4
ERSA-1210*	3 Pole 1N/O Aux	25A	12A	5.5
ERSA-1201*	3 Pole 1N/C Aux	25A	12A	5.5
ERSA-1810*	3 Pole 1N/O Aux	32A	18A	9
ERSA-1801*	3 Pole 1N/C Aux	32A	18A	9
ERSA-2510*	3 Pole 1N/O Aux	40A	25A	11
ERSA-2501*	3 Pole 1N/C Aux	40A	25A	11
ERSA-3210*	3 Pole 1N/O Aux	50A	32A	15
ERSA-3201*	3 Pole 1N/C Aux	50A	32A	15
ERSA-4011*	3 Pole 1N/O + 1N/C Aux	60A	40A	22
ERSA-5011*	3 Pole 1N/O + 1N/C Aux	80A	50A	25
ERSA-6511*	3 Pole 1N/O + 1N/C Aux	80A	65A	37
ERSA-8011*	3 Pole 1N/O + 1N/C Aux	125A	80A	45
ERSA-9511*	3 Pole 1N/O + 1N/C Aux	125A	95A	45

## 4 Pole Contactors with AC Coils

- CSA, UL Listed, EN 60947-4-1
- Maximum rated operational voltage 690V
- Overload relays do not fit on ERSF contactors with 2N/O + 2N/C mainpole contacts



**ERSA & ERSF  
COMPARISON  
CHART  
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\*State coil voltage reference when ordering with **1** for 24VAC, **2** for 48VAC, **3** for 110VAC, **4** for 230VAC, **5** for 415VAC

Example: To buy a 230VAC 25A 4 Pole 4N/O, order Part No. **ERSA-250044**

PART NO	DESCRIPTION	AC1 RATING	AC3 RATING	kW RATING
ERSA-09004*	4 Pole 4N/O	25A	9A	4
ERSA-09008*	4 Pole 2N/O + 2N/C	25A	9A	4
ERSA-12004*	4 Pole 4N/O	25A	12A	5.5
ERSA-12006*	4 Pole 4N/C	25A	12A	5.5
ERSA-12008*	4 Pole 2N/O + 2 N/C	25A	12A	5.5
ERSA-25004*	4 Pole 4N/O	40A	25A	11
ERSA-25006*	4 Pole 4N/C	40A	25A	11
ERSA-25008*	4 Pole 2N/O + 2 N/C	40A	25A	11
ERSA-40004*	4 Pole 4N/O	60A	40A	22
ERSA-40008*	4 Pole 2N/O + 2N/C	60A	40A	22
ERSA-65004*	4 Pole 4N/O	80A	65A	37
ERSA-65008*	4 Pole 2N/O + 2N/C	80A	65A	37
ERSA-80004*	4 Pole 4N/O	125A	80A	45
ERSA-80008*	4 Pole 2N/O + 2N/C	125A	80A	45

## Replacement AC Coils for ERSF Contactors

### ERSA09-18 (AC) 50/60Hz

PART NO	DESCRIPTION
ERS-2D1	24V AC
ERS-2D2	48V AC
ERS-2D3	110V AC
ERS-2D4	230V AC
ERS-2D5	415V AC

### ERSA25-32 (AC) 50/60Hz

PART NO	DESCRIPTION
ERS-4D1	24V AC
ERS-4D2	48V AC
ERS-4D3	110V AC
ERS-4D4	230V AC
ERS-4D5	415V AC

### ERSA40-95 (AC) 50/60Hz

PART NO	DESCRIPTION
ERS-6D1	24V AC
ERS-6D2	48V AC
ERS-6D3	110V AC
ERS-6D4	230V AC
ERS-6D5	415V AC





Industrial

## 3 Pole Contactors with DC Coils

- CSA, UL Listed, EN 60947-4-1
- Maximum rated operational voltage 690V

\*State coil voltage reference when ordering with **A** for 12VDC, **B** for 24VDC, **C** for 48VDC and **D** for 110VDC

Example: To purchase a 24VDC 12A 3 Pole 1N/O Aux, order Part No. **ERSD-1210B**

PART NO	DESCRIPTION	AC1 RATING	AC3 RATING	kW RATING
ERSD-0910*	3 Pole 1N/O Aux	25A	9A	4
ERSD-0901*	3 Pole 1N/C Aux	25A	9A	4
ERSD-1210*	3 Pole 1N/O Aux	25A	12A	5.5
ERSD-1201*	3 Pole 1N/C Aux	25A	12A	5.5
ERSD-1810*	3 Pole 1N/O Aux	32A	18A	9
ERSD-1801*	3 Pole 1N/C Aux	32A	18A	9
ERSD-2510*	3 Pole 1N/O Aux	40A	25A	11
ERSD-2501*	3 Pole 1N/C Aux	40A	25A	11
ERSD-3210*	3 Pole 1N/O Aux	50A	32A	15
ERSD-3201*	3 Pole 1N/C Aux	50A	32A	15
ERSD-4011*	3 Pole 1N/O + 1N/C Aux	60A	40A	22
ERSD-5011*	3 Pole 1N/O + 1N/C Aux	80A	50A	25
ERSD-6511*	3 Pole 1N/O + 1N/C Aux	80A	65A	37
ERSD-8011*	3 Pole 1N/O + 1N/C Aux	125A	80A	45

# Accessories for ERSA & ERSD09-95 Range Contactors



## ERSA & ERSD09-95 Range Contactor Overload Relays

- CSA, UL Listed and IEC, + EN 60947
- Overload relays do not fit on ERSA & ERSD09-95 contactors with 2N/O + 2N/C main pole contacts



PART NO	DESCRIPTION
ERSR-0.16	0.10-0.16A for use with ERSA & ERSD09-32 Contactors
ERSR-0.25	0.16-0.25A for use with ERSA & ERSD09-32 Contactors
ERSR-0.40	0.25-0.40A for use with ERSA & ERSD09-32 Contactors
ERSR-0.63	0.40-0.63A for use with ERSA & ERSD09-32 Contactors
ERSR-1	0.63-1.0A for use with ERSA & ERSD09-32 Contactors
ERSR-1.65	1-1.65A for use with ERSA & ERSD09-32 Contactors
ERSR-2.5	1.6-2.5A for use with ERSA & ERSD09-32 Contactors
ERSR-4	2.5-4A for use with ERSA & ERSD09-32 Contactors
ERSR-6	4-6A for use with ERSA & ERSD09-32 Contactors
ERSR-8	5.5-8A for use with ERSA & ERSD09-32 Contactors
ERSR-10	7-10A for use with ERSA & ERSD09-32 Contactors
ERSR-13	9-13A for use with ERSA & ERSD09-32 Contactors
ERSR-18	12-18A for use with ERSA & ERSD09-32 Contactors
ERSR-25	17-25A for use with ERSA & ERSD09-32 Contactors
ERSR-32	23-32A for use with ERSA & ERSD25-32 Contactors
ERSR-36	28-36A for use with ERSA & ERSD32 Contactors
ERSR-32D	23-32A for use with ERSA & ERSD40-65 Contactors
ERSR-40D	30-40A for use with ERSA & ERSD40-65 Contactors
ERSR-50D	37-50A for use with ERSA & ERSD50-65 Contactors
ERSR-65D	48-65A for use with ERSA & ERSD65 Contactors
ERSR-70D	55-70A for use with ERSA & ERSD65 Contactors
ERSR-80D	63-80A for use with ERSA & ERSD80 Contactors
ERSR-95D	80-93A for use with ERSA & ERSD95 Contactors

## ERSR Overload Mounting Plates

- For remote mounting of ERSA overload relays
- Din Rail Mounted or fixing screws (Not supplied)



PART NO	DESCRIPTION
ERSMP18	From ERSA & ERSD09-18 only
ERSMP32	From ERSA & ERSD25-32 only
ERSMP95	From ERSA & ERSD40-95 only

## Control Relays (Ith: 10A)

- EN 60947-4-1
- Please note: The control relays are compatible with the ERSA and ERSASM range of front and side mounting auxiliary blocks
- AC-15 rated



PART NO	DESCRIPTION
ERSCR221	24V AC 2N/O + 2N/C
ERSCR222	48V AC 2N/O + 2N/C
ERSCR223	110V AC 2N/O + 2N/C
ERSCR224	230V AC 2N/O + 2N/C
ERSCR311	24V AC 3N/O + 1N/C
ERSCR312	48V AC 3N/O + 1N/C
ERSCR313	110V AC 3N/O + 1N/C
ERSCR314	230V AC 3N/O + 1N/C
ERSCR401	24V AC 4N/O
ERSCR402	48V AC 4N/O
ERSCR403	110V AC 4N/O
ERSCR404	230V AC 4N/O

NB: For safety reasons the rating of an overload should not exceed the rating of the contactor it is being used with. However, in specific applications when a contactor is used based on the AC-1 rating (Resistive load) then an overload up to the AC-1 rating can be safely used. For example: A contactor rated 9A AC-3 / 25A AC-1 can be used with a ERSR-25 (17-25A) to protect a 25A AC-1 load. Note: The IET Wiring Regulations (BS 7671) clause 552.1.1 states that every electric motor having a rating exceeding 0.37kW shall be provided with control equipment incorporating means of protection against the overload of the motor.





## Industrial Front Mounting Auxiliary Contact Blocks

- UL and CSA
- Rated thermal current (Ith) 10A
- Suitable for use with Eris AC, DC and F range contactors (Adding 33mm to the depth of the ERS AC & DC range)



PART NO	DESCRIPTION
ERSA11	1N/O + 1N/C
ERSA13	1N/O + 3N/C
ERSA20	2N/O
ERSA02	2N/C
ERSA22	2N/O + 2N/C
ERSA31	3N/O + 1N/C
ERSA40	4N/O
ERSA04	4N/C

## Side Mounting Auxiliary Contact Blocks

- Rated thermal current (Ith) 10A
- Suitable for use with ERS-09 to ERS-32 contactors (adding 12.5mm to the width)
- Not suitable for use with ERS-F Range contactors



PART NO	DESCRIPTION
ERSASM11	1N/O + 1N/C
ERSASM20	2N/O

## Star Delta 0.1 - 30 Seconds

- Suitable for use with Eris AC, DC and F range contactors
- (Adding 52mm to the depth of the Eris AC and DC range).



PART NO	DESCRIPTION
ERSTSD30	Star Delta 0.1 - 30 Sec



## Timer On Delay

- Suitable for use with Eris AC, DC and F range contactors (Adding 52mm to the depth of the Eris AC and DC range)



PART NO	DESCRIPTION
ERSDT3	0.1 - 3 Sec
ERSDT30	1 - 30 Sec
ERSDT180	10 - 180 Sec



## Timer Off Delay

- Suitable for use with ERS AC, DC and F range contactors (Adding 52mm to the depth of the Eris AC and DC range)



PART NO	DESCRIPTION
ERSDR3	0.1 - 3 Sec
ERSDR30	1 - 30 Sec
ERSDR180	10 - 180 Sec



## Mechanical Interlocks for Eris AC and DC Range

- Will fit both Eris AC and DC range contactors



PART NO	DESCRIPTION
ERSM32	ERS-09 to ERS-32
ERSM65	ERS-40 to ERS-65
ERSM95	ERS-80 to ERS-95



## Coil Suppressor

- 230V AC max / 400V DC max



PART NO	DESCRIPTION
ERSSB	Suppressor Block



## Industrial

# Mechanical Latching Blocks (Front Mounting)

- Mechanically holds the contactor closed after the coil is de-energised
- A separate pulse to the mechanical latching block (Greater than 100ms) is required to open (Release) the contactor
- Adds 40mm to the depth of the ERSA & ERSD09--32 contactor (9-32A)



**USE WITH  
ERSA & ERSD  
CONTACTORS**

PART NO	DESCRIPTION
ERSMF321	9 - 32A / 24V AC
ERSMF324	9 - 32A / 230 - 240V AC
ERSMF325	9 - 32A / 400 - 415V AC



## Reversing Contactor Cable Sets

- To be used with the appropriate mechanical interlock

PART NO	DESCRIPTION
ERSCS12	9 - 12A
ERSCS18	18A
ERSCS25	25A
ERSCS32	32A
ERSCS65	40 - 65A
ERSCS95	80 - 95A

## ERSF Range Contactors

### 3 Pole / 3 Normally Open (Supplied Without Coil)

- Maximum rated operational voltage 690V
- Supplied with incoming and outgoing shrouds
- F range contactors are supplied without a coil
- The required coil voltage must be ordered separately
- A supporting range of auxiliaries and accessories are available including spare terminal shrouds



**ERSA & ERSF  
COMPARISON  
CHART  
PAGE 312**

PART NO	DESCRIPTION	DIMENSIONS (H x W x D)
ERSF-115A	59KW 115A AC3 (200A AC1)	162 x 164 x 171mm
ERSF-150A	80KW 150A AC3 (250A AC1)	170 x 164 x 171mm
ERSF-185A	100KW 185A AC3 (275A AC1)	174 x 169 x 181mm
ERSF-225A	110KW 225A AC3 (315A AC1)	197 x 169 x 181mm
ERSF-265A	140KW 265A AC3 (350A AC1)	203 x 202 x 213mm
ERSF-330A	180KW 330A AC3 (400A AC1)	206 x 213 x 219mm
ERSF-400A	220KW 400A AC3 (500A AC1)	206 x 213 x 219mm
ERSF-500A	280KW 500A AC3 (630A AC1)	238 x 233 x 232mm
ERSF-630A	375KW 630A AC3 (800A AC1)	304 x 309 x 255mm

### 4 Pole / 4 Normally Open (Supplied Without Coil)

- Maximum rated operational voltage 690V
- Supplied with incoming and outgoing shrouds
- F range contactors are supplied without a coil
- The required coil voltage must be ordered separately
- A supporting range of auxiliaries and accessories are available including spare terminal shrouds



**ERSA & ERSF  
COMPARISON  
CHART  
PAGE 312**

PART NO	DESCRIPTION	DIMENSIONS (H x W x D)
ERSF-1154A	59KW 115A AC3 (200A AC1)	162 x 201 x 171mm
ERSF-1504A	80KW 150A AC3 (250A AC1)	170 x 201 x 171mm
ERSF-1854A	100KW 185A AC3 (275A AC1)	174 x 209 x 181mm
ERSF-2254A	110KW 225A AC3 (315A AC1)	197 x 209 x 181mm
ERSF-2654A	140KW 265A AC3 (350A AC1)	203 x 245 x 213mm
ERSF-3304A	180KW 330A AC3 (400A AC1)	206 x 261 x 219mm
ERSF-4004A	220KW 400A AC3 (500A AC1)	206 x 261 x 219mm
ERSF-5004A	280KW 500A AC3 (630A AC1)	238 x 288 x 232mm
ERSF-6304A	375KW 630A AC3 (800A AC1)	304 x 389 x 255mm



Industrial



## AC Coils for ERSF Contactors

### ERSF-115-150A (AC) (40-400Hz)

PART NO	DESCRIPTION
ERSF-F1	24V AC
ERSF-F3	110V AC
ERSF-F4	240V AC
ERSF-F5	415V AC

### ERSF-185-225A (AC) (40-400Hz)

PART NO	DESCRIPTION
ERSF-G1	24V AC
ERSF-G3	110V AC
ERSF-G4	240V AC
ERSF-G5	415V AC

### ERSF-265-330 (AC) (50-60Hz)

PART NO	DESCRIPTION
ERSF-H1	24V AC
ERSF-H3	110V AC
ERSF-H4	240V AC
ERSF-H5	415V AC

### ERSF-400A (AC) (50-60Hz)

PART NO	DESCRIPTION
ERSF-J3	110V AC
ERSF-J4	240V AC
ERSF-J5	415V AC

### ERSF-500A (AC) (50-60Hz)

PART NO	DESCRIPTION
ERSF-K3	110V AC
ERSF-K4	240V AC
ERSF-K5	415V AC

### ERSF-630A (AC) (50-60Hz)

PART NO	DESCRIPTION
ERSF-L3	110V AC
ERSF-L4	240V AC
ERSF-L5	415V AC

## Accessories for ERSF Range Contactors

### ERSF Range Contactor Overload Relay



PART NO	DESCRIPTION
ERSF-R105	65 - 105A
ERSF-R125	80 - 125A
ERSF-R160	100 - 160A
ERSF-R200	125 - 200A
ERSF-R250	160 - 250A

PART NO	DESCRIPTION
ERSF-R315	200 - 315A
ERSF-R400	250 - 400A
ERSF-R500	315 - 500A
ERSF-R630	400 - 630A

## Mechanical Interlocks for ERSF Range



PART NO	DESCRIPTION
ERSM150H	ERSF-115 to 150 Horizontal
ERSM150V	ERSF-115 to 150 Vertical
ERSM225H	ERSF-185 to 225 Horizontal
ERSM225V	ERSF-185 to 225 Vertical
ERSM500H	ERSF-265 to 500 Horizontal
ERSM500V	ERSF-265 to 500 Vertical
ERSM630H	ERSF-630 Horizontal
ERSM630V	ERSF-630 Vertical

## Spare Terminal Shrouds for ERSF Range

PART NO	DESCRIPTION
ERST5125	ERSF-115 & ERSF-F105 to 125
ERST5200	ERSF-150 to ERSF-R200
ERST5500	ERSF-225 to 500
ERST5630	ERSF-630 & ERSF-R400 to 630







## Control Relays



PART NO	DESCRIPTION
EASY-E4-UC-12RC1	easy relay, 12-24VDC/24VAC, 8DI,4 Relay, Display
EASY-E4-UC-12RCX1	easy relay,12-24VDC/24VAC, 8DI,4 Relay, No Display
EASY-E4-DC-12TC1	easy relay, 24VDC, 8DI,4 Transistor, Display
EASY-E4-DC-12TCX1	easy relay, 24VDC, 8DI,4 Transistor, No Display
EASY-E4-AC-12RC1	easy relay, 110-240VACDC, 8DI,4 Relay Output, Display
EASY-E4-AC-12RCX1	easy relay, 110-240VACDC, 8DI,4 Relay Output, No Display

## Expansion Modules

PART NO	DESCRIPTION
EASY-E4-UC-8RE1	easy expansion module, 4DI, 4 Relay Output
EASY-E4-UC-16RE1	easy expansion module, 8DI, 8 Relay Output
EASY-E4-DC-8TE1	easy expansion module, 4DI, 4 Transistor Output
EASY-E4-DC-16TE1	easy expansion module, 8DI,8 Transistor Output
EASY-E4-AC-8RE1	easy expansion module, 4DI, 4 Relay Output
EASY-E4-AC-16RE1	easy expansion module, 8DI, 8 Relay Output
EASY-E4-DC-6AE1	easy expansion module, 4AI, 2AO
EASY-E4-DC-4PE1	easy expansion unit, temperature input



## Starter Packs

- Includes the software license and RJ45 cable

PART NO	DESCRIPTION
EASY-BOX-E4-UC1	Universal Voltage Starter pack
EASY-BOX-E4-DC1	DC Voltage Starter pack
EASY-BOX-E4-AC1	AC Voltage, Starter pack



## Software License

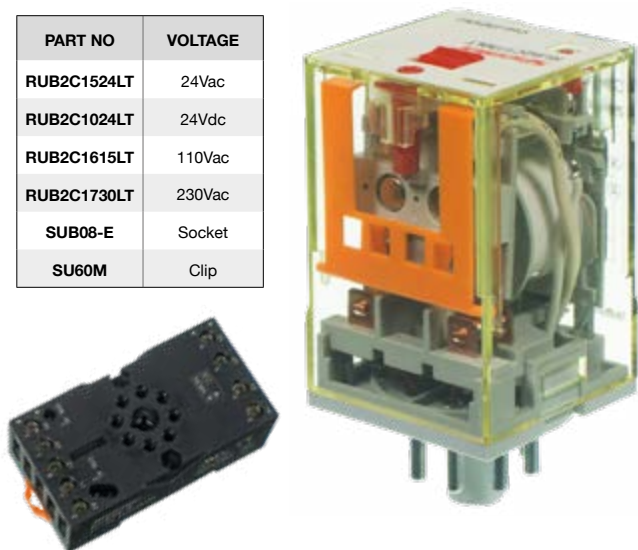
PART NO	DESCRIPTION
EASYSOFT-SWLIC	easy E4 Programming Software

## Shenler

### Plug-In Relays

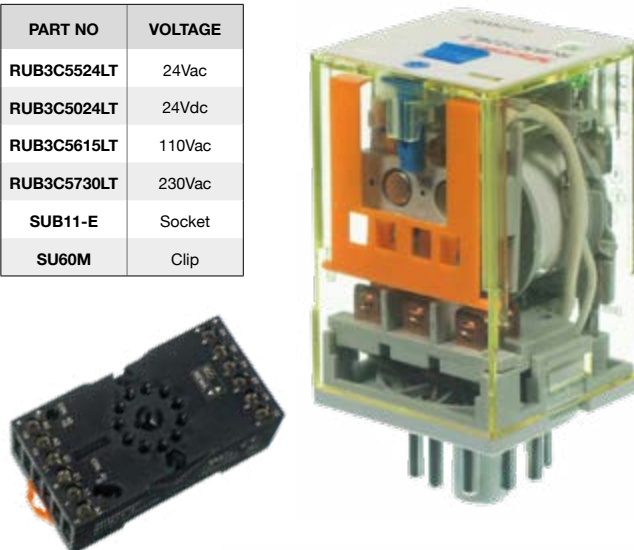
#### RUB 8 Pin Plug-in

PART NO	VOLTAGE
RUB2C1524LT	24Vac
RUB2C1024LT	24Vdc
RUB2C1615LT	110Vac
RUB2C1730LT	230Vac
SUB08-E	Socket
SU60M	Clip



#### RUB 11 Pin Plug-in

PART NO	VOLTAGE
RUB3C5524LT	24Vac
RUB3C5024LT	24Vdc
RUB3C5615LT	110Vac
RUB3C5730LT	230Vac
SUB11-E	Socket
SU60M	Clip



#### RKE 14 Pin Plug-in

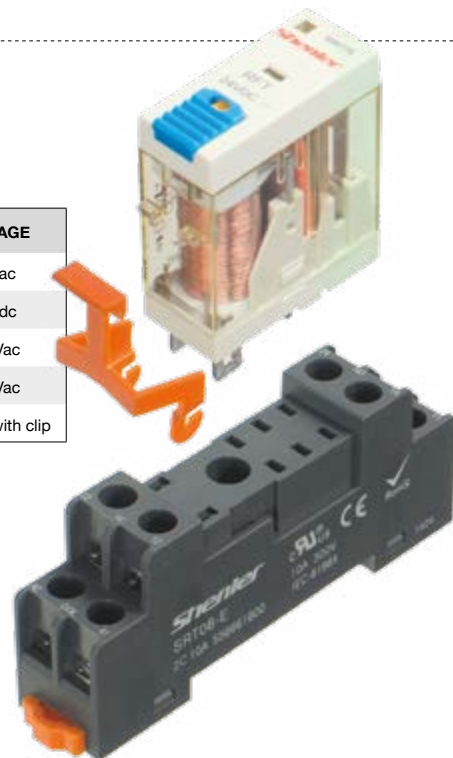
PART NO	VOLTAGE
RKE4C0524LT	24Vac
RKE4C0024LT	24Vdc
RKE4C0615LT	110Vac
RKE4C0730LT	230Vac
SKF14-E	Socket
SK36M	Clip

PART NO	ACCESSORY
AMD-L1110-240VAC/DC	Diode
AMD-L16-24VAC/DC	Diode



#### RFT 8 Pin Plug-in

PART NO	VOLTAGE
RFT2C0524LT	24Vac
RFT2C0024LT	24Vdc
RFT2C0615LT	110Vac
RFT2C0730LT	230Vac
SRT08-E/SR20	Socket with clip



#### RNC Slimline Relays 6.2mm

PART NO	VOLTAGE
RNC1C0012/SNC05-E-A	12Vac/dc
RNC1C0024/SNC05-E-A	24Vac/dc
RNC1C0060/SNC05-E-C	110Vac





# Timer Relays

Industrial

## Multifunction Timer Relay

- Time range: 0.1s - 100 hours
- Mounting: DIN rail
- Supply voltage: 24V DC, 24V - 240V AC
- Current maximum: 5A
- Contact configuration: SPDT
- Mode of operation: Delay on, delay on release, double interval, interval, interval on, trigger open, symmetrical recycler off, symmetrical recycler on

PART NO  
ERSMFT24



## Modular Time Relays



TMP



TMD



TMM1



TMM2



TMST



TMLS

PART NO	TIME SCALE RANGE	RATED AUXILIARY SUPPLY VOLTAGE (V)
<b>On delay time relay. Multiscale. Multivoltage</b>		
TMP	0.1-1s, 1-10s, 6-60s, 1-10min, 6min-1hr, 1-10hr, 0.1-1 day, 1-10 days, ON only, OFF only	24-48VDC / 24-240VAC
TMPA440	0.1-1s, 1-10s, 6-60s, 1-10min	380-440VDC
<b>Off delay time relay. Multiscale. Multivoltage</b>		
TMD	0.06-0.6s, 0.6-6s, 6-60s, 18-180s	24-240VAC/DC
<b>Multifunction time relay. Multiscale. Multivoltage. 1 changeover relay output. 10 functions including on delay, off delay, flasher, pulse generator, latch</b>		
TMM1	0.1-1s, 1-10s, 6-60s, 1-10min, 6min-1hr, 1-10hr, 0.1-1 day, 1-10 days, ON only, OFF only	12-240VAC/DC
TMM1NFC	40 Functions, NFC Programming	
<b>Multifunction time relay. Multiscale. Multivoltage. 1 changeover relay output + 1N/O contact. 10 functions including on delay, off delay, flasher, pulse generator, latch</b>		
TMM2	0.1-1s, 1-10s, 6-60s, 1-10min, 6min-1hr, 1-10hr, 0.1-1 day, 1-10 days, ON only, OFF only	12-240VAC/DC
<b>Recycle time relay, independent timings. Multiscale. Multivoltage</b>		
TMPL	0.1-1s, 1-10s, 6-60s, 1-10min, 6min-1hr, 1-10hr, 0.1-1 day, 1-10 days, 3-30 days, 10-100 days	12-240VAC/DC
<b>Time relay for starting (star delta starters). Multiscale. Multivoltage</b>		
TMST	0.1-1s, 1-10s, 6-60s, 1-10min	24-48VDC / 24-240VAC
TMSTA440	0.1-1s, 1-10s, 6-60s, 1-10min	380-440VDC
<b>Time relay for staircase lighting</b>		
TMLS	0.5-20min	220-240VAC

### TMM1NFC

Multifunction Timer is now available with wireless NFC programming via the free "LOVATO NFC" android app - even without power! No front controls makes time settings 100% accurate, secure and may even be password protected and made tamperproof! 40 FUNCTIONS now available due to the removal of mechanical adjustments. Functions also include counter and hour run time - never before available on a standard multifunction timer Settings can be stored and shared across multiple devices for rapid programming or file sharing via free LOVATO NFC app or email. Setup of timers has never been easier!





## Monitoring Relays



### Voltage Monitoring Relays for Three Phase systems without neutral



	PMV10	PMV20	PMV30	PMV40	PMV50	PMV70
Minimum AC voltage			✓		✓	✓
Maximum AC voltage					✓	✓
Phase loss	✓	✓	✓	✓	✓	✓
Incorrect phase sequence	✓	✓	✓	✓	✓	✓
Asymmetry				✓		✓

### Voltage Monitoring Relays for Three Phase systems with or without neutral



	PMV50N	PMV70N	PMV80N	PMV95N
Minimum AC voltage	✓	✓	✓	✓
Maximum AC voltage	✓	✓	✓	✓
Phase loss	✓	✓	✓	✓
Neutral loss	✓	✓	✓	✓
Incorrect phase sequence	✓	✓	✓	✓
Asymmetry		✓		✓
Minimum frequency			✓	✓
Maximum frequency			✓	✓

### Voltage Monitoring Relays for Three Phase systems without neutral

PART NO	RATED VOLTAGE TO CONTROL U <sub>e</sub> (PHASE TO PHASE) [V] 50/60Hz
Phase loss and incorrect phase sequence. Instantaneous trip.	
1 module housing	
PMV10A440	208...480VAC
2 module housing	
PMV20A240	100...240VAC
PMV20A575	208...575VAC
Minimum AC voltage. Delayed trip. Phase loss and incorrect phase sequence. Instantaneous trip	
PMV30A240	208...240VAC
PMV30A575	380...575VAC
Asymmetry. Delayed trip. Phase loss and incorrect phase sequence. Instantaneous trip	
PMV40A240	208...240VAC
PMV40A575	380...575VAC
Minimum and maximum AC voltage. Delayed trip. Phase loss and incorrect phase sequence. Instantaneous trip	
PMV50A240	208...240VAC
PMV50A575	380...575VAC
Minimum and maximum AC voltage and asymmetry. Delayed trip. Phase loss and incorrect phase sequence. Instantaneous trip	
PMV70A240	208...240VAC
PMV70A575	380...575VAC



PMV10 A440



PMV30



PMV50

### Voltage Monitoring Relays for Three Single Phase systems



	PMV50N
Minimum AC voltage	✓
Maximum AC voltage	✓

## Voltage Monitoring Relays for Three Phase systems without neutral



PMV50N

PART NO	RATED VOLTAGE TO CONTROL U <sub>e</sub> (PHASE TO PHASE) [V] 50/60HZ
Minimum and maximum AC voltage. Delayed trip. Phase loss, neutral loss and incorrect phase sequence. Instantaneous trip	
PMV50NA240	208...240VAC
PMV50NA440	380...440VAC
Minimum and maximum AC voltage and asymmetry. Delayed trip. Phase loss, neutral loss and incorrect phase sequence. Instantaneous trip	
PMV70NA240	208...240VAC
PMV70NA440	380...440VAC
Minimum and maximum AC voltage, minimum and maximum frequency. Delayed trip. Phase loss, neutral loss and incorrect phase sequence. Instantaneous trip	
PMV80NA240	208...240VAC
PMV80NA440	380...440VAC

## Current Monitoring Relays



PMA20/30



PMA40

PART NO	RATED CURRENT I <sub>e</sub> [A]	AUXILIARY SUPPLY VOLTAGE [V]
Single-phase system. AC/DC maximum current control. Auxiliary AC/DC power supply. Automatic or manual reset.		
PMA20240	5 or 16A	24...240VAC/DC
Single and three-phase system. AC/DC minimum or maximum current control. Delayed trip. Auxiliary AC/DC power supply. Automatic or manual reset.		
PMA30240	5 or 16A	24...240VAC/DC
Single and three-phase system. AC/DC minimum or maximum current control. Delayed trip. Auxiliary AC/DC power supply. Automatic or manual reset.		
PMA40240	0.02-0.05-0.25-1-5-16A	24...240VAC/DC



PMV55

## Voltage Monitoring Relays for Three Single Phase Systems

PART NO	RATED VOLTAGE TO CONTROL U <sub>e</sub> (PHASE TO PHASE) [V] 50/60HZ
Minimum and maximum AC voltage. Delayed trip	
PMV55A240	208...240VAC
PMV55A440	380...440VAC

## Pump Protection Relays



PMA50

PART NO	RATED CURRENT I <sub>e</sub> [A]	AUXILIARY SUPPLY VOLTAGE [V]
Single and three-phase systems. Maximum AC current and minimum cos. Delayed trip. Phase loss and incorrect phase sequence. Instantaneous trip. Auxiliary AC power supply. Automatic or manual reset.		
PMA50A240	5 or 16A	220...240VAC
PMA50A415		380...415VAC

## G59/99 Interface Protection Relay

PMVF70



PART NO	RATED VOLTAGE [V]	AUXILIARY SUPPLY VOLTAGE [V]
Single and three-phase systems with or without neutral in low and high voltage. Dual threshold minimum and maximum voltage and frequency protection, ROCOF and vector shift. Modular DIN rail mounting		
PMVF70	230VAC 400VAC	100...240VAC 110...250VDC

Compliant with prevailing G59 and G99 standards

## Frequency Monitoring Relays



PMF20

PART NO	RATED VOLTAGE TO CONTROL U <sub>e</sub> (PHASE TO PHASE) [V] 50/60HZ
Minimum and maximum AC voltage. Delayed trip	
PMF20A240	220...240VAC
PMF20A415	380...415VAC



## Level Controls

	LVM20A240*	LVM25240 24-240VAC/DC	LVM30A240*	LVM40A240*
Modular version	✓ (2U)	✓ (1U)	✓ (3U)	✓ (3U)
3 detecting electrodes (MIN, MAX and COM)	✓	✓	✓	
5 detecting electrodes (MIN1, MAX1, MIN2, MAX2 and COM)				✓
Sensitivity adjustment 2.5-50kΩ	✓		✓	
Sensitivity adjustment 2.5-100kΩ		✓		
Sensitivity adjustment 2.5-200kΩ				✓
Adjustable sensitivity full-scale value 25-50-100-200kΩ				✓
Separate sensitivity adjustment for MAX probe (foam detection)				✓
Emptying function	✓	✓	✓	✓
Filling function		✓	✓	✓
Emptying function with Extra-MIN and/or Extra-MAX alarm relays				✓
Filling function with Extra-MIN and/or Extra-MAX alarm relays				✓
Emptying function with start change control				✓
Filling function with start change control				✓
Tank filling, well drawing functions and alarm				✓
Filling-emptying adjustment selector		✓	✓	
Programming selector for 5 different functions				✓

\*24VAC, 110VAC and 400VAC versions available.

## Probes and Electrode Holders



PART NO	PROBE INCLUDED	PROBE LENGTH
<b>Single Pole Electrodes</b>		
11SN1	Yes	100mm
31SCM04	Yes	43mm
31SCM50	Yes	500mm
31SCM100	Yes	1000mm
31CGL1253	Yes	327mm
31CGL1255	Yes	500mm
31CGL1257	Yes	700mm
31CGL12510	Yes	1000mm
<b>Three Pole Electrodes</b>		
31PS31	Yes	300/11.8mm
<b>Electrode holder (for 3 rod probes)</b>		
31PS3S	No	-

## Electrodes

DESCRIPTION	460mm ROD PROBE LENGTH	960mm ROD PROBE LENGTH
For SCM probes	31ASTA460MM4	31ASTA960MM4
For PS3S electrode holder	31ASTA460MM6	31ASTA960MM6

## Float Switches for Grey Water



PART NO	CABLE MATERIAL	CABLE LENGTH	COUNTER-WEIGHT INCLUDED
LVFSP1W03	PVC	3mm	Yes
LVFSP1W05	PVC	5mm	Yes
LVFSP1W10	PVC	10mm	Yes
LVFSP1W15	PVC	15mm	Yes
LVFSN1W05	Neoprene	5mm	Yes
LVFSN1W10	Neoprene	10mm	Yes
LVFSN1W15	Neoprene	15mm	Yes
LVFSN1W20	Neoprene	20mm	Yes

## Float Switches for Dirty Water



PART NO	CABLE MATERIAL	CABLE LENGTH	COUNTER-WEIGHT INCLUDED
LVFSN1B05	Neoprene	5mm	Internal
LVFSN1B10	Neoprene	10mm	Internal
LVFSN1B15	Neoprene	15mm	Internal
LVFSN1B20	Neoprene	20mm	Internal

# INDUSTRIAL CONTROLS • METERING INSTRUMENTS



## Energy Meters



PART NO	DESCRIPTION	MID APPROVED VERSION
<b>Single phase energy meters</b>		
DMED100T1	40A direct connection, 1 module, 1 pulse output, LCD screen with kWh measurement 220-240VAC	DMED100T1MID
DMED110T1	40A direct connection, 1 module, 1 programmable static output, LCD screen with display of multiple measurements 220-240VAC	DMED110T1MID
DMED120T1	63A direct connection, 2 module, 1 programmable static output, backlit LCD screen with display of multiple measurements 220-240VAC	DMED120T1MID
DMED121	63A direct connection, 2 module, 1 programmable static output, backlit LCD screen with display of multiple measurements, RS485 output 220-240VAC	DMED121T1MID
DMEDD130LM	63A direct connection, 4 module with 2 inputs and 2 relay outputs and backlit LCD display for load management of a single phase system. Screen display multiple measurements. 220-240VAC	-
<b>Three phase energy meters</b>		
DMED301	For three phase with or without neutral, 80A direct connection, 4 module, backlit LCD screen with display of multiple measurements, RS485 output	DMED301MID
DMED330	For three phase with or without neutral, connection via 5A current transformer 4 module, backlit LCD screen with display of multiple measurements, RS485 output	DMED330MID
DMED305T2	For three phase with or without neutral, connection via 5A current transformer 4 module, 2 programmable static outputs, backlit LCD screen with display of multiple measurements	DMED305T2MID
DMED310T2	For three phase with or without neutral, connection via 5A current transformer 4 module, 2 programmable static outputs, backlit LCD screen with display of multiple measurements, expandable with EXM modules	DMED310T2MID
DMECD (Data concentrator)	Data concentrator for general use. 8 programmable digital inputs, expandable for data collection. RS485	-

## Solid - Core Current Transformers for DMED and DMG Devices



PART NO	PRIMARY CURRENT LPN /5 (A)	BURDEN	
		CL. 0.5 (VA)	CL. 1 (VA)
<b>For Ø22mm cable</b>			
DM0T0050	50	-	1.25
DM0T0060	60	-	1.5
DM0T0080	80	-	1.5
DM0T0100	100	-	1.5
DM0T0150	150	-	2
<b>For Ø23mm cable. For 30x10mm, 25x12.5mm, 10x15mm busbars</b>			
DM2T0100	100	-	1
DM2T0150	150	-	1.5
DM2T0200	200	-	2
DM2T0250	250	-	2.5
DM2T0300	300	1.5	3
DM2T0400	400	2	3
<b>For Ø30mm cable. For 30x10mm, 25x12.5mm, 10x15mm busbars</b>			
DM3T0200	200	-	5
DM3T0250	250	-	5
DM3T0300	300	2.5	5
DM3T0400	400	2.5	5
DM3T0500	500	2.5	5
DM3T0600	600	5	10
DM3T0800	800	5	10

## Compact Prewire Split - Core



PART NO	PRIMARY CURRENT LPN /5 (A)	BURDEN	
		CL. 0.5 (VA)	CL. 1 (VA)
<b>24 x 24mm hole. Cable supplied as standard, 1m length</b>			
DM1TMA0100	100	-	1.2
DM1TMA0150	150	-	1.2
DM1TMA0200	200	-	1.2
DM1TMA0250	250	-	1.2
<b>36x38mm hole. Cable supplied as standard, 1m length</b>			
DM2TMA0250	250	-	1.5
DM2TMA0300	300	-	1.5
DM2TMA0400	400	-	1.5
DM2TMA0500	500	-	1.5





## Industrial Metal Flush Push Button Head and Collar (IP65)

• IP65 Rated when installed



PART NO	DESCRIPTION
ERS-PBFW	White
ERS-PBFBLK	Black
ERS-PBFG	Green
ERS-PBFR	Red
ERS-PBFY	Yellow
ERS-PBFB	Blue
ERS-PBFCGW	Green Button White I Symbol
ERS-PBFCWBA	White Button Black Arrow - NB: Does NOT include the mounting collar
ERS-PBFCBWA	Black Button White Arrow - NB: Does NOT include the mounting collar

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact

## Metal Booted Push Button and Collar (IP65)

• IP65 rated when installed



PART NO	DESCRIPTION
ERS-PBBBLK	Black
ERS-PBBG	Green
ERS-PBBR	Red
ERS-PBBY	Yellow
ERS-PBBB	Blue

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact

## Metal Projecting Push Button and Collar (IP65)

• IP65 rated when installed



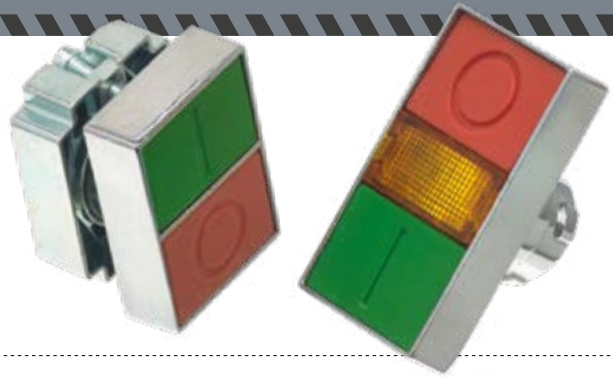
PART NO	DESCRIPTION
ERS-PBPW	White
ERS-PBPBLK	Black
ERS-PBPG	Green
ERS-PBPR	Red
ERS-PBPY	Yellow
ERS-PBPB	Blue
ERS-PBPRO	Red Button White O Symbol

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact

## Twin Push Button (IP40)

- IP40 rated when installed
- Collar is supplied with the lamp holder (illuminated only)

PART NO	DESCRIPTION	PART NO	DESCRIPTION
ERS-PBT	Off-On (Illuminated)	ERS-CBNC	N/C Collar Mounting Contact
ERS-PBTL	Off-Off (Not Illuminated)	ERS-CBNO	N/O Collar Mounting Contact



## Metal Key Operated Selector Switches + Collar (IP65)

- IP65 Rated when installed

PART NO	DESCRIPTION
ERS-KS2KR2	2 Position Key Removable in 2 Positions
ERS-KS2KRC	2 Position Key Removable in Centre Off Position
ERS-KS2SR	2 Position Key Spring Return from Right to Centre

PART NO	DESCRIPTION
ERS-KS3KR3	3 Position Key Removable in 3 Positions
ERS-KS3KRC	3 Position Key Removable in Centre Off Position
ERS-KS3SR	3 Position Key Spring Return to Centre

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



## Metal Standard Handle Selector Switches + Collar (IP65)

- IP65 Rated when installed

PART NO	DESCRIPTION
ERS-SS2SP	2 Position Stay Put
ERS-SS2SR	2 Position Spring Return to Centre
ERS-SS2SPL	2 Position Stay Put Long Handle

PART NO	DESCRIPTION
ERS-SS3SP	3 Position Stay Put
ERS-SS3SR	3 Position Spring Return to Centre
ERS-SS3SPL	3 Position Stay Put Long Handle

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



## Auxiliary Contact Blocks

- Collar mounting only

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



## Accessories for 22mm Push Buttons

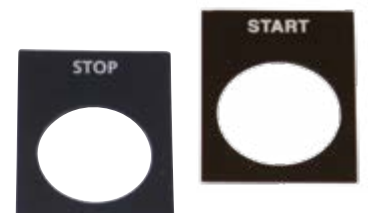
### Spare Key (Key number 455)

PART NO	DESCRIPTION
ERS-K	Spare Key for Selector Switches



### Legend Plates

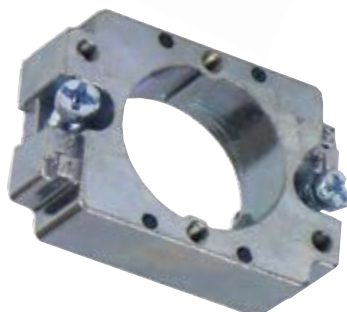
- Suitable for use with all 22mm diameter push buttons



### Mounting Collar

PART NO	DESCRIPTION
ERS-MC	Mounting Collar

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



PART NO	DESCRIPTION
ERS-ESLP	60mm Emergency Stop
ERS-SLP	Start
ERS-SPLP	Stop





## Industrial

## Metal Mushroom Head (Spring Return) (IP65)

- 40mm mushroom head
- IP65 rated when installed

PART NO	DESCRIPTION
ERS-MHBLKSR	Black Spring Return with Collar
ERS-MHGSR	Green Spring Return with Collar
ERS-MHRSR	Red Spring Return with Collar

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



## Emergency Stops

### Emergency Stop Buttons + Collar (Latching) (IP65)

- 40mm mushroom head
- IP65 rated when installed

PART NO	DESCRIPTION
ERS-ESK	Key Release
ERS-ESKNC	Key Release + 1N/C Contact
ERS-ESTR	Twist Release
ERS-ESTRNC	Twist Release + 1N/C Contact
ERS-ESTRNO	Twist Release + 1N/O Contact
ERS-ESPP	Push/Pull

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



### 60mm Mushroom Head (Latching) Emergency Stop (IP65)

- IP65 rated when installed / 60mm mushroom head

PART NO	DESCRIPTION
ERS-MHTR	Twist Release + Collar

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



### Plastic Emergency Stop Buttons (Latching) (IP65)

- IP65 rated when installed / 40mm mushroom head
- Mounting clip required for panel use

PART NO	DESCRIPTION
ERS-ESKRP	Key Release (Plastic Body)
ERS-ESTRP	Twist Release (Plastic Body)

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact





# INDUSTRIAL CONTROLS • PILOT LAMPS

## 16mm LED Pilot Lamps (IP65)

- EN 60947
- Multi segment / Long life: 30,000 hours / Low temperature
- 24V & 110V AC/DC / 230V AC / Complete with locking nut
- Current rating 20mA



PART NO	DESCRIPTION
ERS16W24	White 24V AC/DC
ERS16G24	Green 24V AC/DC
ERS16R24	Red 24V AC/DC
ERS16A24	Amber 24V AC/DC
ERS16B24	Blue 24V AC/DC

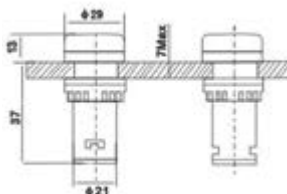
PART NO	DESCRIPTION
ERS16W110	White 110V AC/DC
ERS16G110	Green 110V AC/DC
ERS16R110	Red 110V AC/DC
ERS16A110	Amber 110V AC/DC
ERS16B110	Blue 110V AC/DC

PART NO	DESCRIPTION
ERS16W230	White 230V AC
ERS16G230	Green 230V AC
ERS16R230	Red 230V AC
ERS16A230	Amber 230V AC
ERS16B230	Blue 230V AC

## 22mm LED Pilot Lamps (IP65)



PART NO	DESCRIPTION
ERS22W24	White 24V AC/DC
ERS22G24	Green 24V AC/DC
ERS22R24	Red 24V AC/DC
ERS22A24	Amber 24V AC/DC
ERS22B24	Blue 24V AC/DC



PART NO	DESCRIPTION
ERS22W110	White 110V AC/DC
ERS22G110	Green 110V AC/DC
ERS22R110	Red 110V AC/DC
ERS22A110	Amber 110V AC/DC
ERS22B110	Blue 110V AC/DC

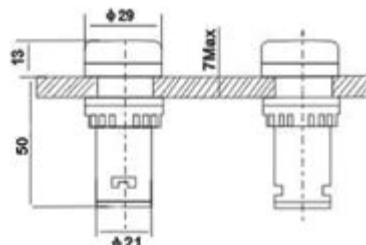
PART NO	DESCRIPTION
ERS22W230	White 230V AC
ERS22G230	Green 230V AC
ERS22R230	Red 230V AC
ERS22A230	Amber 230V AC
ERS22B230	Blue 230V AC

## 22mm LED with Lamp Test Facility (IP65)

- This range of LEDs offers a lamp test (or push to test) facility enabling individual or groups of lamps to be tested from a single push button by the application of a test voltage without interrupting normal operation



PART NO	DESCRIPTION
ERS22W24T	White 24V AC/DC
ERS22G24T	Green 24V AC/DC
ERS22R24T	Red 24V AC/DC
ERS22A24T	Amber 24V AC/DC
ERS22B24T	Blue 24V AC/DC

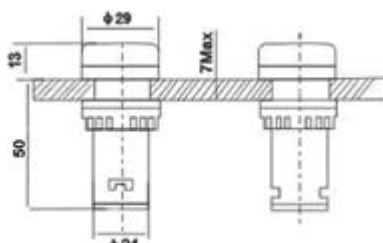


PART NO	DESCRIPTION
ERS22W110T	White 110V AC/DC
ERS22G110T	Green 110V AC/DC
ERS22R110T	Red 110V AC/DC
ERS22A110T	Amber 110V AC/DC
ERS22B110T	Blue 110V AC/DC

PART NO	DESCRIPTION
ERS22W230T	White 230V AC
ERS22G230T	Green 230V AC
ERS22R230T	Red 230V AC
ERS22A230T	Amber 230V AC
ERS22B230T	Blue 230V AC

## 22mm LED with Sounder Sound Output 80dB

- Flashing LED with buzzer



PART NO	DESCRIPTION
ERS22R24S	Red 24V AC/DC LED Buzzer
ERS22A24S	Amber 24V AC/DC LED Buzzer
ERS22B24S	Blue 24V AC/DC LED Buzzer

PART NO	DESCRIPTION
ERS22R110S	Red 110V AC/DC LED Buzzer
ERS22A110S	Amber 110V AC/DC LED Buzzer
ERS22B110S	Blue 110V AC/DC LED Buzzer

PART NO	DESCRIPTION
ERS22R230S	Red 230V AC LED Buzzer
ERS22A230S	Amber 230V AC LED Buzzer
ERS22B230S	Blue 230V AC LED Buzzer





## Industrial

### LED BA9 Bayonet (10 x 23mm)

- AC/DC
- For use with illuminated push buttons and selector switches
- Long life: 30,000 Hours
- Operating temperature: -25°C to + 55°C



### 24V AC/DC

PART NO	DESCRIPTION
ERSLED24W	24V White 2 Chip LED
ERSLED24G	24V Green 1 Chip LED
ERSLED24R	24V Red 2 Chip LED
ERSLED24A	24V Amber 2 Chip LED
ERSLED24B	24V Blue 2 Chip LED

### 110V AC/DC

PART NO	DESCRIPTION
ERSLED110W	110V White 4 Chip LED
ERSLED110G	110V Green 2 Chip LED
ERSLED110R	110V Red 2 Chip LED
ERSLED110A	110V Amber 2 Chip LED
ERSLED110B	110V Blue 2 Chip LED

### 230V AC/DC

PART NO	DESCRIPTION
ERSLED230W	230V White 4 Chip LED
ERSLED230G	230V Green 2 Chip LED
ERSLED230R	230V Red 2 Chip LED
ERSLED230A	230V Amber 2 Chip LED
ERSLED230B	230V Blue 2 Chip LED

### Lamp Holder (BA9 Type) + Collar

- Includes mounting collar
- LH3 & LH4 lamp holders are suitable for use with illuminated push buttons and selector switches. Contact blocks can only be used on 3 & 4 (ERS-LH3 & ERS-LH4)



PART NO	DESCRIPTION
1 ERS-LH1	Transformer Type 110V > 6V
2 ERS-LH2	Transformer Type 240V > 6V
3 ERS-LH3	Direct Connected (any voltage)
4 ERS-LH4	Diode & Series Resistor 230V > 110V

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact

### Lamp Head Only

- Collar is supplied with the lamp holder (sold separately, see Lamp Holders above)



PART NO	DESCRIPTION
ERS-LW	White
ERS-LG	Green
ERS-LR	Red
ERS-LA	Amber
ERS-LB	Blue
ERS-LC	Clear

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



## Flush Illuminated Push Button Head Only (IP65)

- Collar is supplied with the lamp holder (sold separately, see page 50)



PART NO	DESCRIPTION
ERS-LPBFW	White
ERS-LPBFV	Green
ERS-LPBFH	Red
ERS-LPBFM	Amber
ERS-LPBFN	Blue
ERS-LPBFK	Clear

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact

## Illuminated Stay Put Selector Switches (IP65)

- IP65 rated when installed
- Collar is supplied with the lamp holder (sold separately, see page 50)



PART NO	DESCRIPTION
ERS-LSSG	2 Position Green
ERS-LSSR	2 Position Red
ERS-LSSA	2 Position Amber

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact

## 1 Position Plastic (IP65)

- IP65 rated when installed
- Includes Legend plate stickers with each control station



PART NO	DESCRIPTION
ERS1PK2P	Key Removable in ON & OFF + 1N/O
ERS1PG	Green + 1N/O

PART NO	DESCRIPTION
ERS-BCBNC	N/C Back Mounting for Plastic Control Stations
ERS-BCBNO	N/O Back Mounting for Plastic Control Stations



## Plastic Pre-assembled Control Stations

### Plastic Enclosed Emergency Stop Stations (IP65)

- IP65 rated when installed
- Rated up to 240V at 10A @ AC-1

PART NO	DESCRIPTION
ERS1PKES	Key Release + 1N/C
ERS1PTRES	Twist Release + 1N/C
ERS1PSRES	Spring Release + 1N/C
ERS1PPRES	Pull Release + 2N/C
ERS1P60TRES	60mm Head Twist Release + 1N/C

PART NO	DESCRIPTION
ERS-BCBNC	N/C Back Mounting for Plastic Control Stations
ERS-BCBNO	N/O Back Mounting for Plastic Control Stations



## Auxiliary Contact Blocks

- For plastic control stations only

PART NO	DESCRIPTION
ERS-BCBNC	N/C Back Mounting for Plastic Control Stations
ERS-BCBNO	N/O Back Mounting for Plastic Control Stations



## Industrial

### 2 Position Plastic (IP65)

• IP65 rated when installed



PART NO	DESCRIPTION
ERS2PGRES	Green / Emergency Stop + 1N/O + 1N/C
ERS2PGR	Green / Red + 1N/O + 1N/C
ERS2PWB	White / Black + 2N/O

PART NO	DESCRIPTION
ERS-BCBNC	N/C Back Mounting for Plastic Control Stations
ERS-BCBNO	N/O Back Mounting for Plastic Control Stations

### 3 Position Plastic (IP65)

• IP65 rated when installed



PART NO	DESCRIPTION
ERS3PGRG	Green / Red / Green + 2N/O + 1N/C
ERS3PWRB	White/Red/Black + 2N/O + 1N/C

PART NO	DESCRIPTION
ERS-BCBNC	N/C Back Mounting for Plastic Control Stations
ERS-BCBNO	N/O Back Mounting for Plastic Control Stations

## Metal Pre-assembled Control Stations

### Metal Enclosed Emergency Stop Stations (IP65)

• IP65 rated when installed / Rated up to 240V at 10A



PART NO	DESCRIPTION
ERS1MKES	Key Release + 1N/C
ERS1MTES	Twist Release + 1N/C
ERS1M60TES	60mm Head Twist Release + 1N/C

PART NO	DESCRIPTION
ERS-BCBNM	N/C Back Mounting for Metal Pre-assembled Stations
ERS-BCBNOM	N/O Back Mounting for Metal Pre-assembled Stations

### 1 Position Metal (IP65)

• IP65 rated when installed

PART NO	DESCRIPTION
ERS1MK2P	Key Removable in ON & OFF Position + 1N/O
ERS1MK3P	3 Position Key Release Spring Return to Centre + 2N/O
ERS1MG	Green + 1N/O

PART NO	DESCRIPTION
ERS-BCBNM	N/C Back Mounting for Metal Pre-assembled Stations
ERS-BCBNOM	N/O Back Mounting for Metal Pre-assembled Stations







**Industrial**

## Metal Pre-assembled Control Stations

### 2 Position Metal (IP65)

- IP65 rated when installed



PART NO	DESCRIPTION
ERS2MGRES	Green / Emergency Stop + 1N/O + 1N/C
ERS2MGR	Green / Red + 1N/O + 1NC

PART NO	DESCRIPTION
ERS-BCBNCM	N/C Back Mounting for Metal Pre-assembled Stations
ERS-BCBNOM	N/O Back Mounting for Metal Pre-assembled Stations



### 3 Position Metal (IP65)

- IP65 rated when installed
- Includes Legend plate stickers with each control station



Legend plates are included with each push button station

PART NO	DESCRIPTION
ERS3MGRG	Green / Red / Green 2N/O + 1N/C

PART NO	DESCRIPTION
ERS-BCBNCM	N/C Back Mounting for Metal Pre-assembled Stations
ERS-BCBNOM	N/O Back Mounting for Metal Pre-assembled Stations

## Empty Control Station Enclosures

### Plastic Empty Control Stations (IP65)

- IP65 rated when installed



PART NO	DESCRIPTION
ERS1P	1 Hole
ERS1PY	1 Hole (Yellow Lid)
ERS2P	2 Hole
ERS3P	3 Hole
ERS4P	4 Hole

PART NO	DESCRIPTION
ERS-BCBNC	N/C Back Mounting for Plastic Control Stations
ERS-BCBNO	N/O Back Mounting for Plastic Control Stations

### Metal Empty Control Stations (IP65)

- IP65 rated when installed
- Cable entry top & bottom



PART NO	DESCRIPTION
ERS1M	1 Hole
ERS1MY	1 Hole (Yellow Lid)
ERS2M	2 Hole
ERS3M	3 Hole
ERS4M	4 Hole

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact

## Metal Empty Control Stations with Shroud (IP67)

- IP65 rated when installed
- Complete with protective shroud to guard against accidental operation of the switch
- PG16 x 1 cable entry (on top)



PART NO	DESCRIPTION
ERS1MS	1 Hole H: 72 x W: 72 x D: 57mm
ERS2MS	2 Hole H: 112 x W: 72 x D: 57mm
ERS3MS	3 Hole H: 142 x W: 72 x D: 57mm

PART NO	DESCRIPTION
ERS-CBNC	N/C Collar Mounting Contact
ERS-CBNO	N/O Collar Mounting Contact



## Auxiliary Contact Blocks

- For metal control stations only

PART NO	DESCRIPTION
ERS-BCBNCM	N/C Back Mounting for Metal Pre-assembled Stations
ERS-BCBNOM	N/O Back Mounting for Metal Pre-assembled Stations



## Industrial

### Metal Clad Limit Switches Complete with Actuator Head

- All limit switches have M20 cable entries
- Conforms to IEC 947
- Protection standard: IP66

PART NO	DESCRIPTION
1 ERSBM5E12Z11	Limit switch M20 stainless steel ball plunger 1NO + 1NC snap action
2 ERSBM5E13Z11	Limit switch M20 stainless steel ø12 roller plunger 1NO + 1NC snap action
3 ERSBM5E22Z11	Limit switch M20 stainless steel plunger with ø12 roller 1NO + 1NC snap action
4 ERSBM5E31Z11	Limit switch M20 x 1.5 one way ø22 nylon roller lever 1NO + 1NC snap action
5 ERSBM5E41Z11	Limit switch M20 ø22 nylon roller lever 1NO + 1NC snap action
6 ERSBM5E51Z11	Limit switch M20 adj ø22 nylon roller lever 1NO + 1NC snap action
7 ERSBM5E72Z11	Limit switch M20 adj nylon rod lever 1NO + 1NC snap action
8 ERSBM5E91Z11	Limit switch M20 stainless steel spring actuator 1NO + 1NC snap action



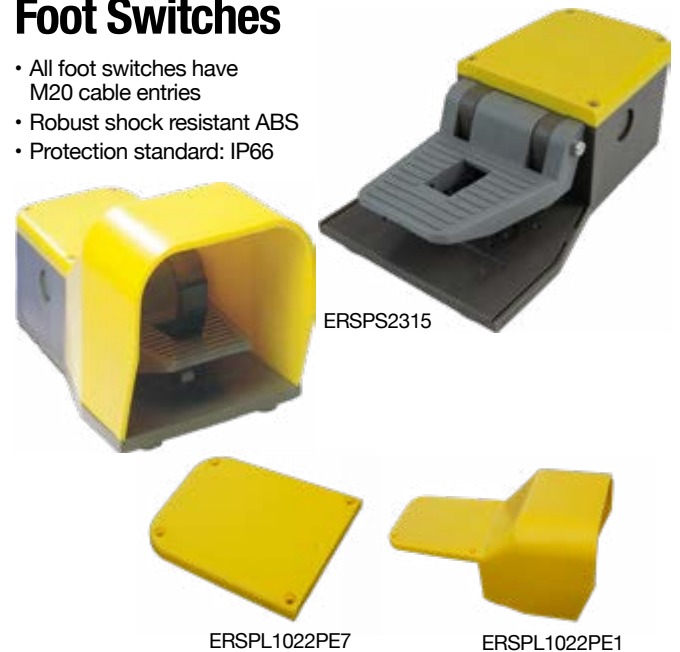
### Plastic Limit Switches Complete with Actuator Head



PART NO	DESCRIPTION
1 ERSBM5H11Z11	Limit switch M20 plain steel plunger 1NO + 1NC snap action
2 ERSBM5H13Z11	Limit switch M20 steel roller plunger 1NO + 1NC snap action
3 ERSBM5H41Z11	Limit switch M20 ø22 nylon roller lever 1NO + 1NC snap action
4 ERSBM5H51Z11	Limit switch M20 adj ø22 nylon roller lever 1NO + 1NC snap action
5 ERSBM5H55Z11	Limit switch M20 adj ø50 roller lever 1NO + 1NC snap action

### Foot Switches

- All foot switches have M20 cable entries
- Robust shock resistant ABS
- Protection standard: IP66



PART NO	DESCRIPTION
ERSPS2175	Single foot switch M20 free movement half yellow 1NO + NC snap action shock resistant ABS
ERSPS2115	Single foot switch M20 free movement yellow 1NO + NC snap action shock resistant ABS
ERSPS2315	Single foot switch M20 with safety device yellow 1NO + NC snap action shock resistant ABS
ERSPL1022PE7	Half Yellow cover
ERSPL1022PE1	Full Yellow cover

### Limit Switch and Foot Switch Accessories

PART NO	DESCRIPTION
ERSGZ11	Contact block 1NC + 1NO snap action
ERSGX11	Contact block 1NC + 1NO slow action



## Industrial Momentary & Emergency Foot / Palm Switches

- Momentary (wobble action) and emergency maintained (pull to release) foot and palm switches
- Conforms to IEC 947
- Dimensions: diameter 90mm, height 101mm (emergency), 90mm (momentary)
- Switches conform to: IEC 947-5-1 (International) and EN 60947-5-1 (European) Standards
- Operational temperature: -25°C to +70°C
- Mechanical durability: 300,000 operations
- Protection against electrical shocks (to IEC 536): Class II
- Degree of protection (to IEC 529 & EN 60529): IP65
- Rated insulation voltage to IEC 947-1 & EN 60947-1: 660V
- Connecting terminals: screw with clamp plate for permanent fixing



PART NO	DESCRIPTION
ERSSA091-02	Emergency red mushroom with 2NC contacts – pull to release
ERSSA091-11	Emergency red mushroom with 1NO + 1NC contacts – pull to release
ERSSA081-11	Wobble red mushroom with 1NO + 1NC contacts



## Roller Shutter Door, Key Switches and Accessories

Introducing a range of roller shutter door key switches and accessories from the leading roller door supplier - GEBA

### Features:

- Supplied with 3 x Keys
- Available in 16A and 32A variants
- Tough aluminium enclosure
- Tamper proof patent
- 3 position “spring return” to centre action
- IP54 rated



**Complete Key Switches**

PART NO	DESCRIPTION
MSAPZ1-2T/1	16A Direct Wire Roller Door Key Switch
SAPZ1-2T/32A	32A Direct Wire Roller Door Key Switch



**Key Switch Accessories**

PART NO	DESCRIPTION
M1GREEN	Replacement N/O Contact Block for MSAPZ1-2T/1
S008	Replacement complete contact block for SAPZ1-2T/32A
SH1	Roller Shutter Door Key-Switch Enclosure



**Push Button Station**

PART NO	DESCRIPTION
KDT3	Plastic Up/Stop/Down Push Button Station





## Signal Towers



Lamp not included

PART NO	DESCRIPTION
<b>Steady light modules. BA15d fitting. Bulb (8 LT7 ALB and 8 LT7 ALL)</b>	
8LT7EL1	Orange
8LT7EL3	Green
8LT7EL4	Red
8LT7EL5	Yellow
8LT7EL6	Blue
8LT7EL8	White
<b>Accessories</b>	
8LT7BP01G	Plastic Surface mount 100mm high fixing base, grey
8LT7BP02G	Vertical wall mount, plastic, grey
8LT7TP0100G	100mm, grey extension tube
8LT7BP01	Plastic Surface mount 100mm high fixing base, black
8LT7BP02	Vertical wall mount, plastic, black colour
8LT7TP0100	100mm, black extension tube
<b>Connection modules and cover</b>	
8LT7CP01G	For plastic tubes, grey
8LT7CP01	For plastic tubes, black

## Signal Beacons



Lamp not included



PART NO	DESCRIPTION
<b>Steady light modules. BA15d fitting. Bulb (8 LT7 ALB and 8 LT7 ALL)</b>	
8LB6EL1	Orange
8LB6EL3	Green
8LB6EL4	Red
8LB6EL5	Yellow
8LB6EL6	Blue
8LB6EL8	White
<b>Fixing bases for light modules</b>	
8LB6BP03	For horizontal mount, plastic, black
8LB6BP05	For hole ø22mm, plastic, black
8LB6BP07	Extension connection. Use with 8LP7BP01 and 8LP7BP02

## LED Bulbs for Signal Towers and Beacons (required for all beacons)

• BFA15d fitting

PART NO	DESCRIPTION
8LT7ALLB3	Green 24VAC/DC
8LT7ALLB4	Red 24VAC/DC
8LT7ALLB5	Yellow / Orange 24VAC/DC
8LT7ALLB6	Blue 24VAC/DC
8LT7ALLB8	White 24VAC/DC



PART NO	DESCRIPTION
8LT7ALLE3	Green 110-120VAC
8LT7ALLE4	Red 110-120VAC
8LT7ALLE5	Yellow / Orange 110-120VAC
8LT7ALLE6	Blue 110-120VAC
8LT7ALLE8	White 110-120VAC

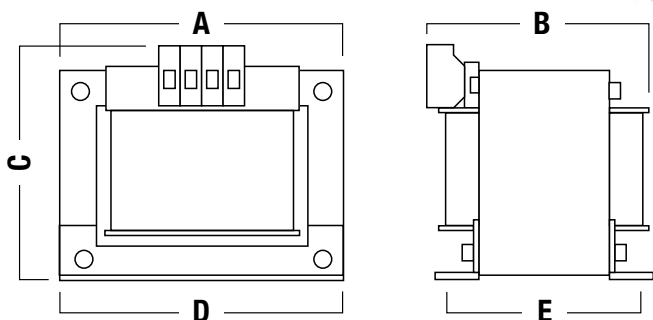
PART NO	DESCRIPTION
8LT7ALLM3	Green 230-240VAC
8LT7ALLM4	Red 230-240VAC
8LT7ALLM5	Yellow / Orange 230-240VAC
8LT7ALLM6	Blue 230-240VAC
8LT7ALLM8	White 230-240VAC



**Industrial**

## Control Transformers

- Class 1 Isolation Transformer with Earth Screen between Primary and Secondary
- Standard: IEC / BS-EN 61558
- Primary Voltages: 0-230-400V
- Secondary Voltages: 0-12-24-48-110-240V
- Frequency: 50/60Hz
- Insulation Class: B
- Insulation Resistance: >5 Meg  $\Omega$
- Dielectric Strength:  
Primary to Secondary >2.5kV  
Primary to Earth >2.5kV  
Secondary to Earth >2.5kV
- Ambient Temperature: 40° C



PART NO	VA	PRIMARY INPUT	SECONDARY OUTPUT	DIMENSIONS (mm)					WEIGHT (KG)
				A	B	C	D	E	
ERSCT50	50	230V / 400V	12V / 24V / 48V / 110V / 240V	76	70	86	56	47	1.1
ERSCT100	100	230V / 400V	12V / 24V / 48V / 110V / 240V	84	78	95	64	63	2.1
ERSCT150	150	230V / 400V	12V / 24V / 48V / 110V / 240V	96	76	102	84	65	2.25
ERSCT200	200	230V / 400V	12V / 24V / 48V / 110V / 240V	96	86	102	84	72	2.8
ERSCT250	250	230V / 400V	12V / 24V / 48V / 110V / 240V	96	101	102	84	90	3.7
ERSCT300	300	230V / 400V	12V / 24V / 48V / 110V / 240V	120	88	122	90	73	4.4
ERSCT400	400	230V / 400V	12V / 24V / 48V / 110V / 240V	120	100	122	90	85	5.3
ERSCT500	500	230V / 400V	12V / 24V / 48V / 110V / 240V	120	120	122	90	106	6.5
ERSCT1000	1000	230V / 400V	12V / 24V / 48V / 110V / 240V	150	161	140	122	106	10.0

# INDUSTRIAL CONTROLS • LOW VOLTAGE INVERTER DRIVES

LS Industrial Systems (previously known as LG Industrial Systems), produce next generation low voltage inverter drive solutions. LS inverter drives provide high performance, the perfect control and deliver optimum energy saving solutions. Ideal for controlling the speed of machine tools, fans, conveyor systems, pumps, compressors and cranes/hoists. The LS inverter range includes, iC5, iS7, M100, S100 (IP20 and IP66) and the H100. LS inverter drives are compliant with the European Machinery Directive for machine safety. Built with added value, user friendly cutting-edge technology, LS produce low voltage, medium voltage and soft starters.

**LS Industrial Systems**

New Name of  LG Industrial Systems

## M100 Micro Drives

- Low-cost micro drive
- For 0.1kW to 2.2kW 3-phase motors
- Simple to connect and set up out of the box
- 1-phase 230V input, 3-phase 230V output
- C2 EMC filter built in
- DIN rail mounting
- Fascia mounted potentiometer for simple speed control
- DC injection braking as standard
- Class leading energy saving



### LSLV M100 230V 1PH, Protection Degree IP20

PART NO	DESCRIPTION
LV0004M100-1E0FNS	Inverter M100 0.4kW 1PH 230V Filtered, K/P, Standard I/O
LV0008M100-1E0FNS	Inverter M100 0.75kW 1PH 230V Filtered, K/P, Standard I/O
LV0015M100-1E0FNS	Inverter M100 1.5kW 1PH 230V Filtered, K/P, Standard I/O
LV0022M100-1E0FNS	Inverter M100 2.2kW 1PH 230V Filtered, K/P, Standard I/O

## G100 Drives

- Enhanced Reliability
- C2 EMC filter built in
- Reinforced Material Design
- More Powerful Sensorless Control function
- Application Adaptability
- Enhanced V/F Performance
- Built-in Potentiometer
- DIN rail Mountable (below 4kW)

### LSLV G100 400V 3PH, Protection Degree IP20

PART NO	DESCRIPTION
LV0004G100-4E0FN	400V, 3PH input, 0.4kW, Filtered
LV0008G100-4E0FN	400V, 3PH input, 0.75kW, Filtered
LV0015G100-4E0FN	400V, 3PH input, 1.5kW, Filtered
LV0022G100-4E0FN	400V, 3PH input, 2.2kW, Filtered
LV0040G100-4E0FN	400V, 3PH input, 4.0kW, Filtered
LV0055G100-4E0FN	400V, 3PH input, 5.5kW, Filtered
LV0075G100-4E0FN	400V, 3PH input, 7.5kW, Filtered







**LS Industrial Systems**  
 New Name of  LG Industrial Systems

# S100 Drives

- Dual rated for heavy duty or normal duty applications
- Powerful Energy optimising
- C3 EMC filter built-in
- Soft starting as standard
- Selectable ramp or DC injection
- Safe Torque Off – safety inputs



## LSLV S100 230V 1PH, Protection Degree IP20

PART NO	DESCRIPTION
LV0004S100-1EOFNS	Inverter S100 0.4kW 1PH 230V Filtered, STO, K/P
LV0008S100-1EOFNS	Inverter S100 0.75kW 1PH 230V Filtered, STO, K/P
LV0015S100-1EOFNS	Inverter S100 1.5kW 1PH 230V Filtered, STO, K/P
LV0022S100-1EOFNS	Inverter S100 2.2kW 1PH 230V Filtered, STO, K/P



## LSLV S100 400V 3PH, Protection Degree IP20

PART NO	DESCRIPTION
LV0004S100-4EOFNS	400V, 3PH input, 0.4kW, Filtered, STO
LV0008S100-4EOFNS	400V, 3PH input, 0.75kW, Filtered, STO
LV0015S100-4EOFNS	400V, 3PH input, 1.5kW, Filtered, STO
LV0022S100-4EOFNS	400V, 3PH input, 2.2kW, Filtered, STO
LV0040S100-4EOFNS	400V, 3PH input, 4.0kW, Filtered, STO
LV0055S100-4EOFNS	400V, 3PH input, 5.5/7.5kW, Filtered, STO
LV0075S100-4EOFNS	400V, 3PH input, 7.5/11kW, Filtered, STO
LV0110S100-4EOFNS	400V, 3PH input, 11/15kW, Filtered, STO

PART NO	DESCRIPTION
LV0150S100-4EOFNS	400V, 3PH input, 15/18.5kW, Filtered, STO
LV0185S100-4EOFNS	400V, 3PH input, 18.5/22kW, Filtered, STO
LV0220S100-4EOFNS	400V, 3PH input, 22/30kW, Filtered, STO
LV0300S100-4COFDS	400V, 3PH input, 30/37kW, Filtered, STO, K/P
LV0370S100-4COFDS	400V, 3PH input, 37/45kW, Filtered, STO, K/P
LV0450S100-4COFDS	400V, 3PH input, 45/55kW, Filtered, STO, K/P
LV0550S100-4COND5	400V, 3PH input, 55/75kW, STO, LCD K/P
LV0750S100-4COND5	400V, 3PH input, 75/90kW, STO, LCD K/P





**FREE**  
energy saving  
surveys  
please ask for  
more details

## LSLV S100 400V 3PH, Protection Degree IP66

- For 3-phase 400V motors from 0.4kW to 22kW
- Save up to 50% on energy bills!
- Rugged wall mounting IP66 construction
- Fascia isolation switch included
- Simple to set up
- Advanced energy optimising algorithm
- Soft-start & Soft-stop
- Internal filters
- Safe Torque Off – safety inputs
- Modbus as standard
- Keypad Anti-tamper lock
- Flying start (catch-a-spinning-fan)
- Selectable DC injection brake as standard



PART NO	DESCRIPTION
LV0004S100-4EXFNS	Inverter S100 0.4kW 3ph 400V Filter
LV0008S100-4EXFNS	Inverter S100 0.75kW 3ph 400V Filter
LV0015S100-4EXFNS	Inverter S100 1.5kW 3ph 400V Filter
LV0022S100-4EXFNS	Inverter S100 2.2kW 3ph 400V Filter
LV0040S100-4EXFNS	Inverter S100 4.0kW 3ph 400V Filter
LV0055S100-4EXFNS	Inverter S100 5.5kW 3ph 400V Filter
LV0075S100-4EXFNS	Inverter S100 7.5kW 3ph 400V Filter
LV0110S100-4EXFNS	Inverter S100 11kW 3ph 400V Filter
LV0150S100-4EXFNS	Inverter S100 15kW 3ph 400V Filter
LV0185S100-4EXFNS	Inverter S100 18.5kW 3ph 400V Filter
LV0220S100-4EXFNS	Inverter S100 22kW 3ph 400V Filter

Energy Saving Report - 3 Phase Induction Motors			
Customer	A & A Aggregates	Application	Plant feed water system
Survey date	12/08/2016	Equipment reviewed	Centrifugal pump
Operating days per week	5	Operating weeks per year	40
Operating hours per day	8	Average energy cost (unit)	£0.14
Existing operating method	Star-delta, no throttle	Proposed operating method	Inverter
Motor power (kW)	75	Proposed speed (%)	80

Retrofit Costs		Results (typical)	
Inverter cost	£3,900.00	Energy saved per year (kW)	41,508
Install cost	£200.00	Cost saving per year	£5,811
Total job cost	£4,100.00	R.O.I period (years)	0.7

Report compiled by R. Wilson On behalf of YESSS Electrical Ltd

**OTHER DRIVE BRANDS ALSO AVAILABLE:**  
**YASKAWA • DANFOSS • PARKER • LENZE • ABB • IMO • ALLEN BRADLEY**  
**INVERTEK • OMRON • MITSUBISHI • CONTROL TECHNIQUES • SIEMENS**



Industrial

## EnviroDrive



## Introducing a new range of energy efficient IP54 enclosed variable speed drives.

Reduce your speed and save energy.

10% slower = **27% SAVINGS**

20% slower = **50% SAVINGS**

## Simple installation and set-up:

- Selection: Pre-engineered enclosures and simple controls
- Install: Just the mains and motor to connect
- Set-up: Nothing to do - all the basics pre-set
- Start: Set the speed and start
- Save: Reduce the speed and save energy

An ideal energy saving solution for the following applications:



Pumps



Fans



Compressors



HVAC



ERIS have the solution with a brand new range of 0.40kW to 22kW enclosed inverter panels supplied ready to run and save you money.



## eris EnviroDrive

### Industrial

- LS inverters with integral EMC filter and keypad / display
- Compact IP54 enclosure with ventilation fans and filters
- Mains supply and motor connections terminals
- Simple stop and start buttons
- Internally mounted energy saving potentiometer

### Single Phase 230V Mains Supply for controlling 3 Phase 230VAC motors

PART NO	kW	AMPS	DIMENSIONS (H x W x D)
ERS1P-0.4ED	0.4	2.4@230V	300 x 300 x 200mm
ERS1P-0.75ED	0.75	4.2@230V	300 x 300 x 200mm
ERS1P-1.5ED	1.5	7.0@230V	300 x 300 x 200mm
ERS1P-2.2ED	2.2	9.6@230V	400 x 300 x 200mm



### Three Phase 400V Mains Supply for controlling 3 Phase 400VAC motors

PART NO	kW	AMPS	DIMENSIONS (H x W x D)
ERS3P-0.4ED	0.40	1.3@400V	300 x 300 x 200mm
ERS3P-0.75ED	0.75	2.4@400V	300 x 300 x 200mm
ERS3P-1.5ED	1.5	3.9@400V	400 x 300 x 200mm
ERS3P-2.2ED	2.2	5.6@400V	400 x 300 x 200mm
ERS3P-4ED	4	9.5@400V	400 x 300 x 200mm
ERS3P-5.5ED	5.5	13@400V	400 x 300 x 200mm
ERS3P-7.5ED	7.5	16.5@400V	500 x 400 x 200mm
ERS3P-11ED	11	25@400V	800 x 600 x 300mm
ERS3P-15ED	15	30@400V	800 x 600 x 300mm
ERS3P-18.5ED	18.5	36@400V	800 x 600 x 300mm
ERS3P-22ED	22	45@400V	800 x 600 x 300mm



Note - all smaller sizes have vents, larger sizes also have a fan for heat dissipation.

**EnviroDrive** starts with the standard specification but can also be tailored to suit your specific requirements with extra or customised features including:

#### Additional Switchgear and Controls

Door Interlocked Isolator, Mains Contactor, Power OFF / ON Pushbuttons, Panel Door Mounted Speed Potentiometer or Keypad / Display, Hand / OFF / Auto Switch, Indicator Lamps & Volt Free Contacts for Power, Running, Alarm, Serial Communication plus many more.

#### Alternative Enclosure Options

Other IP ratings and materials e.g. stainless steel, special paint finish or colours. Preferred enclosure sizes and fully customised units for particular applications or projects available on request.

## Aluminium Multi-Mount Motors

This range of aluminium multi-mount motors are suitable for many different industrial applications, including fans and pumps. The multi-mount design enables the feet to be removed to provide left, right or top terminal box configurations available in IE1, IE2 and IE3.

**Next day delivery service on all sizes from 0.09kW to 315kW**

**AMTECS**

### 2 Pole, 3000RPM

3.0kW = 230/400V  
(delta/star), 3Ph, 50Hz

4.0kW and above =  
400/690V (delta/star), 3Ph, 50Hz



B3 FOOT MOUNTING PART NO	B5 FLANGE MOUNTING PART NO	B14 FLANGE MOUNTING PART NO	FRAME SIZE	RATED OUTPUT POWER (kW)	RATED CURRENT AT 400V (A)	FULL-LOAD SPEED (RPM)	FULL-LOAD EFFICIENCY (%)	STARTING CURRENT FACTOR
28122018	28222018	28322018	AMA 63 K2	0.18	0.55	2715	69	5.5
28122025	28222025	28322025	AMA 63 G2	0.25	0.66	2715	68	5.5
28122037	28222037	28322037	AMA 71 K2	0.37	0.94	2690	70	6.5
28122055	28222055	28322055	AMA 71 G2	0.55	1.33	2715	73	6.5

IE2								
28122075HB	28222075HB	28322075HB	AMA-IE2 80 K2	0.75	1.68	2875	77.4	5.3
28122110HB	28222110HB	28322110HB	AMA-IE2 80 G2	1.1	2.37	2875	79.6	7
28122150HB	28222150HB	28322150HB	AMA-IE2 90 S2	1.5	3.16	2890	81.3	7.1
28122220HB	28222220HB	28322220HB	AMA-IE2 90 L2	2.2	4.48	2890	83.2	6.9
28122300HB	28222300HB	28322300HB	AMA-IE2 100 L2	3	5.86	2891	84.6	8
28132400HB	28232400HB	28332400HB	AMA-IE2 112 M2	4	7.64	2914	85.8	7.5
28132550HB	28232550HB	28332550HB	AMA-IE2 132 S2	5.5	10.6	2937	87	7.5
28132750HB	28232750HB	28332750HB	AMA-IE2 132 SX2	7.5	13.9	2940	88.1	7.5
28132A11HB	28232A11HB	28332A11HB	AMA-IE2 160 M2	11	19.9	2930	89.4	7.6
28132A15HB	28232A15HB	28332A15HB	AMA-IE2 160 MX2	15	26.9	2930	90.3	7.6
28132A185HB	28232A185HB	28332A185HB	AMA-IE2 160 L2	18.5	33	2937	90.9	7.4

IE3								
28122075HC	28222075HC	28322075HC	AMA-IE3 80 K2	0.75	1.6	2880	80.7	5.5
28122110HC	28222110HC	28322110HC	AMA-IE3 80 G2	1.1	2.3	2880	82.7	7.5
28122150HC	28222150HC	28322150HC	AMA-IE3 90 S2	1.5	3.1	2895	84.2	7.1
28122220HC	28222220HC	28322220HC	AMA-IE3 90 L2	2.2	4.3	2895	95.9	7
28122300HC	28222300HC	28322300HC	AMA-IE3 100 L2	3	5.6	2895	87.1	8.6
28132400HC	28232400HC	28332400HC	AMA-IE3 112 M2	4	7.4	2905	88.1	8
28132550HC	28232550HC	28332550HC	AMA-IE3 132 S2	5.5	10	2930	98.2	7.5
28132750HC	28232750HC	28332750HC	AMA-IE3 132 SX2	7.5	14	2930	90.1	7.3
28132A11HC	28232A11HC	28332A11HC	AMA-IE3 160 M2	11	19	2945	91.2	7.3
28132A15HC	28232A15HC	28332A15HC	AMA-IE3 160 Mx2	15	26	2945	91.9	7
28132A185HC	28232A185HC	28332A185HC	AMA-IE3 160 L2	18.5	32	2940	92.4	7

# INDUSTRIAL CONTROLS • ALUMINIUM AC INDUCTION MOTORS

AMTECS



## 4 Pole, 1500RPM

3.0kW = 230/400V (delta/star), 3Ph, 50Hz

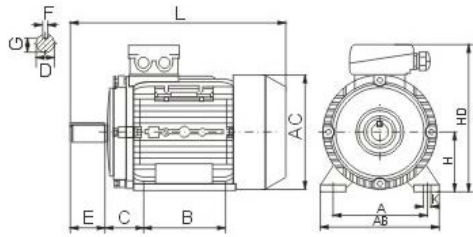
4.0kW and above = 400/690V (delta/star), 3Ph, 50Hz

B3 FOOT MOUNTING PART NO	B5 FLANGE MOUNTING PART NO	B14 FLANGE MOUNTING PART NO	FRAME SIZE	RATED OUTPUT POWER (kW)	RATED CURRENT AT 400V (A)	FULL-LOAD SPEED (RPM)	FULL-LOAD EFFICIENCY (%)	STARTING CURRENT FACTOR
28124012	28224012	28324012	AMA 63 K4	0.12	0.49	1350	53	4.4
28124018	28224018	28324018	AMA 63 G4	0.18	0.7	1340	56	4.4
28124025	28224025	28324025	AMA 71 K4	0.25	0.75	1390	65	5.2
28124037	28224037	28324037	AMA 71 G4	0.37	1.06	1375	67	5.2
28124055	28224055	28324055	AMA 80 K4	0.55	1.49	1370	71	5.2

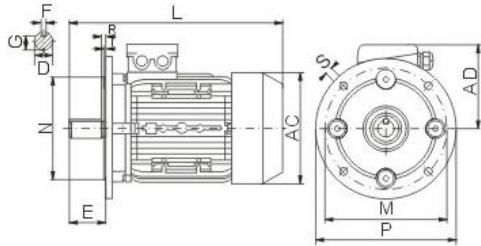
IE2								
28124075HB	28224075HB	28324075HB	AMA-IE2 80 G4	0.75	1.78	1400	79.6	5
28124110HB	28224110HB	28324110HB	AMA-IE2 90 S4	1.1	2.53	1400	81.4	6
28124150HB	28224150HB	28324150HB	AMA-IE2 90 L4	1.5	3.39	1445	82.8	6.8
28124220HB	28224220HB	28324220HB	AMA-IE2 100 L4	2.2	4.64	1440	84.3	7
28124300HB	28224300HB	28324300HB	AMA-IE2 100LX4	3	6.18	1440	85.5	7
28134400HB	28234400HB	28334400HB	AMA-IE2 112 M4	4	8.12	1445	86.6	7.5
28134550HB	28234550HB	28334550HB	AMA-IE2 132 S4	5.5	10.9	1455	87.7	6.4
28134750HB	28234750HB	28334750HB	AMA-IE2 132 M4	7.5	14.5	1455	88.7	7
28134A11HB	28234A11HB	28334A11HB	AMA-IE2 160 M4	11	21	1460	89.8	6.9
28134A15HB	28234A15HB	28334A15HB	AMA-IE2 160 L4	15	28.1	1460	90.6	7.5

IE3								
28124075HC	28224075HC	28324075HC	AMA-IE3 80 G4	0.75	1.77	1420	82.5	6
28124110HC	28224110HC	28324110HC	AMA-IE3 90 S4	1.1	2.55	1445	84.1	6.5
28124150HC	28224150HC	28324150HC	AMA-IE3 90 L4	1.5	3.43	1445	85.3	6.8
28124220HC	28224220HC	28324220HC	AMA-IE3 100 L4	2.2	4.68	1435	86.7	7
28124300HC	28224300HC	28324300HC	AMA-IE3 100LX4	3	6.32	1435	87.7	7.2
28134400HC	28234400HC	28334400HC	AMA-IE3 112 M4	4	8.14	1440	88.6	7
28134550HC	28234550HC	28334550HC	AMA-IE3 132 S4	5.5	11.1	1460	89.6	7
28134750HC	28234750HC	28334750HC	AMA-IE3 132 M4	7.5	14.6	1460	90.4	7.1
28134A11HC	28234A11HC	28334A11HC	AMA-IE3 160 M4	11	21.2	1465	91.4	7.2
28134A15HC	28234A15HC	28334A15HC	AMA-IE3 160 L4	15	28.6	1465	92.1	6.8

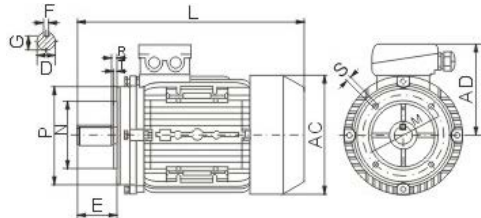




**B3**



**B5**



**B14**



## Also available to order

- Cast iron AC induction motors
- Single phase AC induction motors
- IP68 fully submersible
- Explosion proof motors

**Next day delivery service on all sizes from 0.09kW to 315kW**

FRAME SIZE	MOUNTING DIMENSIONS (mm)																			FRAME DIMENSIONS (mm)					
	B3 FOOT MOUNT									B5 FOOT MOUNT					B14 FOOT MOUNT										
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
56	90	71	36	9	20	3	7.2	56	5.8	65	50	80	M5	2.5	100	80	120	7	3	108	89	110	100	156	195
63	100	80	40	11	23	4	8.5	63	7	75	60	90	M5	2.5	115	95	140	10	3	120	103	120	109	172	213
71	112	90	45	14	30	5	11	71	7	85	70	105	M6	2.5	130	110	160	10	3.5	132	104	139	119	189	255
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	165	130	200	12	3.5	160	124	158	135	215	285

IE2																									
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	165	130	200	12	3.5	160	124	151	135	215	301*
90S	140	100	56	24	50	8	20	90	10	115	95	140	M8	3	165	130	200	12	3.5	177	125	175	145	235	308
90L	140	125	56	24	50	8	20	90	10	115	95	140	M8	3	165	130	200	12	3.5	177	150	175	145	235	360*
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	215	180	250	14.5	4	196	170	196	155	255	372
112M	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	215	180	250	14.5	4	218	183	219	173	286	394
132S	216	140	89	38	80	10	33	132	12	165	130	200	M10	3.5	265	230	300	14.5	4	252	175	258	192	324	462
132M	216	178	89	38	80	10	33	132	12	165	130	200	M10	3.5	265	230	300	14.5	4	252	218	258	192	324	529*
160M	254	210	108	42	110	12	37	160	15						300	250	350	18.5	5	302	304	314	246	406	617
160L	254	254	108	42	110	12	37	160	15						300	250	350	18.5	5	302	304	314	246	406	661

IE3																									
	A	B	C	D	E	F	G	H	K	M	N	P	S	T	M	N	P	S	T	AB	BB	AC	AD	HD	L
80	125	100	50	19	40	6	15.5	80	10	100	80	120	M6	3	165	130	200	12	3.5	160	124	151	135	215	301
90S	140	100	56	24	50	8	20	90	10	115	95	140	M8	3	165	130	200	12	3.5	177	125	175	145	235	308
90L	140	125	56	24	50	8	20	90	10	115	95	140	M8	3	165	130	200	12	3.5	177	150	175	145	235	360
100L	160	140	63	28	60	8	24	100	12	130	110	160	M8	3.5	215	180	250	14.5	4	196	170	196	155	255	372
112M	190	140	70	28	60	8	24	112	12	130	110	160	M8	3.5	215	180	250	14.5	4	218	183	219	173	286	394
132S	216	140	89	38	80	10	33	132	12	165	130	200	M10	3.5	265	230	300	14.5	4	252	175	258	192	324	462
132M	216	178	89	38	80	10	33	132	12	165	130	200	M10	3.5	265	230	300	14.5	4	252	218	258	192	324	529
160M	254	210	108	42	110	12	37	160	15						300	250	350	18.5	5	302	304	314	246	406	617
160L	254	254	108	42	110	12	37	160	15						300	250	350	18.5	5	302	304	314	246	406	661

## FULL RANGE OF BELTS, BEARINGS & CHAINS AVAILABLE

### Bearings & Maintenance



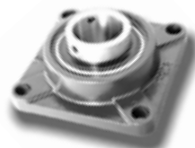
#### Ball Bearings

Ball bearings are suitable for light loads and high speed applications and are used widely in rotary applications such as motors & pumps.



#### Roller Bearings

Roller bearings have extremely high radial load carrying capacities, but usually operate at lower speeds, making them suitable for heavy assemblies.



#### Bearing Units

Bearing units are available in a broad range of inserts and housings, their reliability, simplicity make them an ideal solution for moderate loads.



#### Plain Bearings & Rod Ends

Plain bearings are able to carrying high loads due to a large contact area resulting in low specific load and good sliding properties.



#### Bearing Housings & Bearing Accessories

With a wide variety of housing sizes and designs allow for numerous options of self-aligning arrangements, seals and lubrication methods.



#### Needle Bearings & Track Runner Bearings

Usually used when space is minimal, needle and track runner bearings are available in ball, heavy-duty needle or cylindrical roller construction.



#### Special Bearings

From high precision bearings, to ceramic bearings to extreme temperature bearings, we have a wide range of special bearings.



#### Bearing Maintenance & Equipment

Every bearing has a service lifetime. Our range of maintenance equipment ensures your bearings achieve maximum efficiency.



### Linear Motion & Automation



#### Electrical Automation

Complete handling systems are available including: single and multiple axes, planar surface, 3D gantry and pick & place systems.



#### Linear Actuators

Linear actuators combine the belt or a ball screw, linear guidance and the associated end support bearings within a single module.



#### Electric & Servo Actuators

Electric & servo actuators are becoming increasingly popular, as they are often a straightforward and complete movement system.



#### Linear Guides

Linear guides, miniature linear guides and linear roller guides often form the heart of linear motion systems, providing smooth motion & accuracy.



#### Telescopic Rails

Telescopic rails are ideal for industrial drawers, machine safety doors and many other applications, available with full & partial extensions.



#### Linear Bearings & Shafts

Slide bushes or linear bearings remain a common method of providing linear guidance. Shafts are straightforward & effective.



#### Ball Screws & Roller Screws

Ball screws use ball bearings circulating within a nut, whilst roller screws use planetary or recirculating rollers to transmit force to the shaft.



#### Ball Splines

Ball splines are a linear motion system where balls in a spline nut transmit torque while moving on the ground raceways on the spline shaft.

## Power Transmission



### Industrial Belts

Wide range of industrial belts available including V, Wedge & Timing belts.



### Transmission Chains

Chains available include: engineering chains, leaf chains, conveyor chains, roller chains and silent chains.



### Polyurethane Belting

Great length stability, low bearing load and extreme precision ensure the highest possible performance.



### Composite Belting & Motion Transfer Components

This innovative range of products includes composite V belts, tensioners, keyless bushings and pulleys.



### Pulleys

V belt and timing belt pulleys supplied in pilot bore or taper lock styles, available in cast iron, steel or aluminum.



### Sprockets

We can offer a full range of sprockets for use on chain drives.



### Taper Lock Bushes & Hubs

We can offer bolt-on hubs, weld-on hubs, inch bushes, keyless bushes and taper bushes from stock.



### PT Tools

Correct belt tension and pulley alignment is crucial for the drive system, as well as the life of its components such as bearings and seals.



## Couplings & Drives



### Spider Jaw Couplings

Jaw couplings offer a cost effective, general purpose coupling for maintenance-free operation and easy installation.



### Rigid Couplings

The rigid/gear coupling allows the transmission of high torque. It can handle parallel and angular misalignment as well as axial movement.



### Back-lash Free Couplings

Back-lash free couplings include: beam, bellow, oldham and curved jaw couplings.



### Flexible Couplings

Specifically designed to protect against shock loads and vibration, flexible couplings are used in many different industries.



### Grid, Chain, and Pin & Buffer Couplings

We can supply grid, chain and pin & buffer couplings from a range of leading manufacturers.



### Flywheel Couplings

We can offer many options and variants to suit most flywheel applications.



### Locking Elements and Shaft Collars

Shaft collars can be used to position shafts, separate components and more. Locking elements secure components onto a shaft.



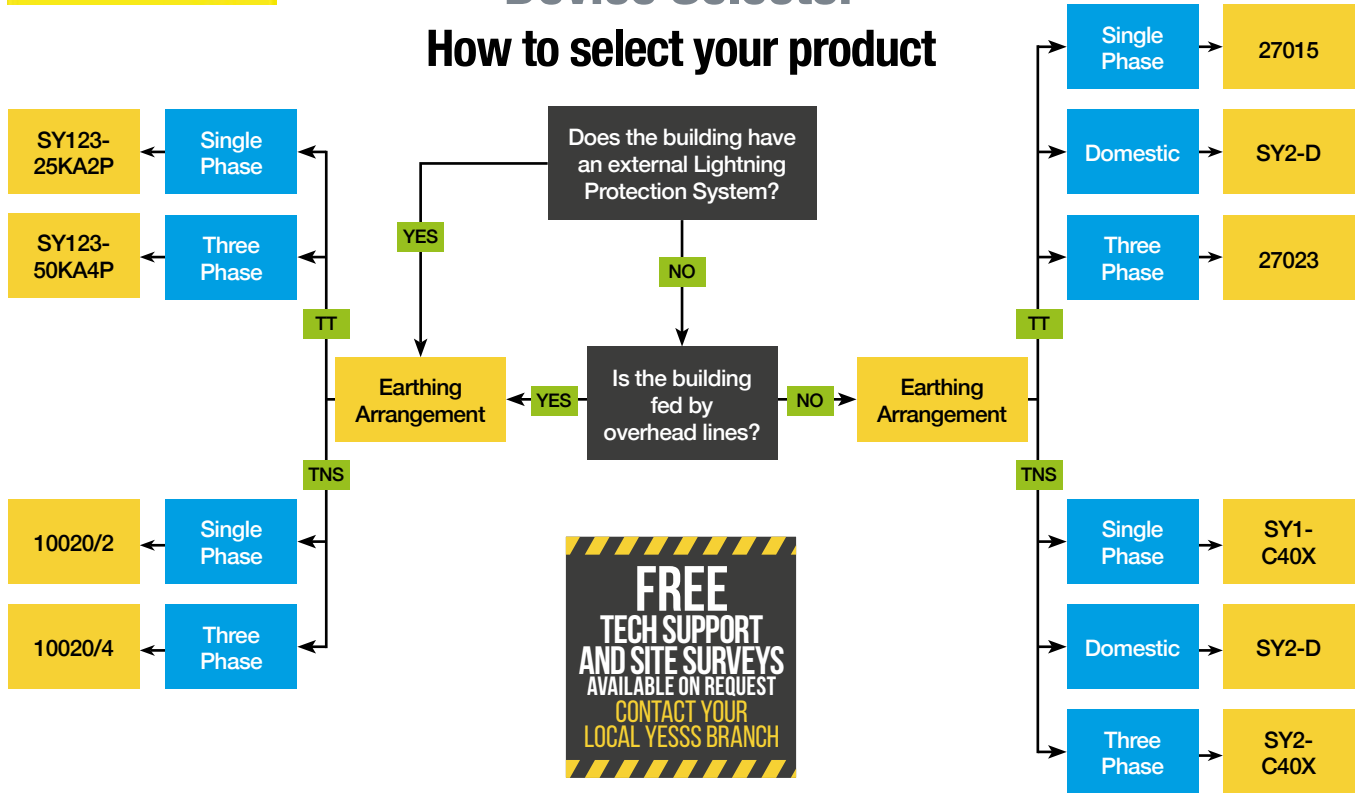
### Gearboxes, Gearmotors & Electric Motors

With IE1, IE2, IE3 & single phase motors available as well as offering a large range of gearboxes, we can offer a range of solutions.





## Device Selector How to select your product



**FREE TECH SUPPORT AND SITE SURVEYS AVAILABLE ON REQUEST CONTACT YOUR LOCAL YESSS BRANCH**

## European Manufactured

### Type 2 & 3 Surge Protection

This level of protection is sufficient on every building that doesn't have an external lightning protection system and is fed from underground cables.

If the installation you are working on is fed by overhead lines or has external lightning protection, please see the Type 1 devices for the main panel. Where a Type 1 device is used on the main panel, a Type 2 & 3 would be sufficient on the sub boards in the installation.



PART NO	DESCRIPTION
SY1-C40X	Single Phase
SY2-C40X	Three Phase

### 50kA Lightning Protection

The kA rating of the Type 1 device needed is usually defined by a risk assessment.



PART NO	DESCRIPTION
10020/2	SP&N Lightning and Surge Protection
10020/4	TP&N Lightning and Surge Protection



**FREE**  
**TECH SUPPORT**  
**AND SITE SURVEYS**  
 AVAILABLE ON REQUEST  
 CONTACT YOUR  
 LOCAL YESSS BRANCH



## Earth Rods & Accessories

Copperbond Earth Rods, Solid Copper Earth Rods, Stainless Steel Earth Rods – 3/8", 1/2", 5/8", 3/4" Rod Couplers, Driving Studs, Driving Heads, Driving Spikes, Coupling Dowels



## Lightning Protection Products

Air Rods, Taper Pointed Air Rods, Multi-Point, Free Standing Air Terminals, Air Rod Saddles, Air Rod Brackets, Rod to Tape Couplers, Slate Holdfasts, Pyramid Holdfast, Strike Pads, Puddle Flanges



## Earth Rods Clamps

Earth Rod to Tape 'A' Clamps, Earth Rod to Cable 'G' Clamps, 'U' Bolt Clamps, 'GUV' Clamps, Split Connector Clamps, Rebar Clamps



## Conductors

Copper Tape, Copper Bar, PVC Covered Copper Tape, Tinned Copper Tape, Aluminium Tape, PVC Covered Aluminium Tape, Solid Circular, Tinned Flexible Copper Braid, PVC Sheathed Cable, Bare Stranded Copper Conductor



## Earth Electrodes & Earthing Compounds

Copper Lattice Earth Mats, Solid Copper Earth Plates, Low Res Earthing Compound, Bentonite Moisture Retaining Clay



## Clips & Clamps

Metallic DC Clips, Non-Metallic DC Clips, Tape Clips, Weldable DC Clips, Adhesive Clips, One Hole Conductor Clips, Push In Clips, Wrap Over Clips, Square Tape Clamps, Oblong Junction Clamps, Plate Type Test Clamps, Screw Down Test Clamps, Bimetallic Connectors



## Earth Inspection Pits

Heavy Duty Plastic Earth Inspection Housing, Light Duty Earth Inspection Housing, Concrete Earth Inspection Housing, Inspection Housing Earth Bars



## Cu-nnect Exothermic Welding System

Exothermic Welding Moulds, Handle Clamps, Weld Powders, Tools & Accessories



## Earth Bars

Standard Earth Bars, Tinned Earth Bars, Earth Bars with Single Disconnecting Link, Earth Bars with Double Disconnecting Links, Disconnecting Link, Telecommunications Earth Bar, Special Earth Bars

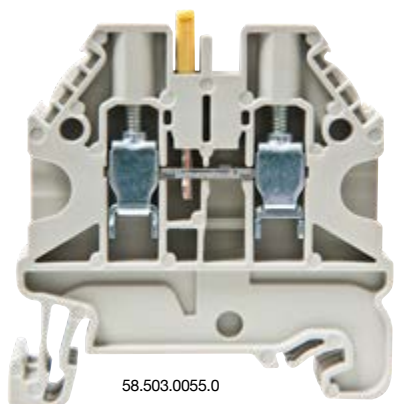


## Surge Protection Devices

Single Phase, Three Phase, Type 1, Type 2, Type 3, Mains Distribution Protection, Single Circuit Protection, Data Line Protection, Telecom Protection, Photovoltaic Protection, Equipotential Bonding, Mains Socket Strips



# INDUSTRIAL CONTROLS • TERMINALS



58.503.0055.0

PART NO	DESCRIPTION
<b>WT 2.5mm Terminal - 24A 1000V IEC - 5mm Wide</b>	
58.503.0055.0	2.5mm Terminal - Grey
58.503.0055.6	2.5mm Terminal - Blue
58.503.9055.0	2.5mm Green/Yellow Earth Terminal
04.344.1455.8	Cover with warning symbol
04.242.5053.0	Blank marker (Box of 25 strips of 10)
<b>WT 4mm Terminal - 32A 1000V IEC - 6mm Wide</b>	
58.504.0055.0	4mm Terminal - Grey
58.504.0055.6	4mm Terminal - Blue
58.504.0055.1	4mm Terminal - Black
58.504.0055.2	4mm Terminal - White
58.504.0055.4	4mm Terminal - Brown
58.504.0055.5	4mm Terminal - Red
58.504.0055.8	4mm Terminal - Yellow
58.504.0055.9	4mm Terminal - Orange
58.504.9055.0	4mm Green/Yellow Earth Terminal
04.344.1655.8	Cover with warning symbol
04.242.6053.0	Blank marker (Box of 25 strips of 10)
<b>WT 6mm Terminal - 41A 1000V IEC - 8mm Wide</b>	
58.506.0055.0	6mm Terminal - Grey
58.506.0055.6	6mm Terminal - Blue
58.506.9055.0	6mm Green/Yellow Earth Terminal
04.344.1855.8	Cover with warning symbol
04.242.8053.0	Blank marker (Box of 25 strips of 10)
<b>WT 10mm Terminal - 57A 1000V IEC - 10mm Wide</b>	
58.510.0055.0	10mm Terminal - Grey
58.510.0055.6	10mm Terminal - Blue
58.510.9055.0	10mm Green/Yellow Earth Terminal
04.344.1855.8	Cover with warning symbol
<b>WT 16mm Terminal - 76A 1000V IEC - 12mm Wide</b>	
58.516.0055.0	16mm Terminal - Grey
58.516.0055.6	16mm Terminal - Blue
58.516.9055.0	16mm Green/Yellow Earth Terminal
04.344.2255.8	Cover with warning symbol

PART NO	DESCRIPTION
<b>End &amp; Separator Plates</b>	
07.313.2555.0	End Plate for WT2.5 - 10mm Terminals
07.313.2755.0	End Plate for WT16 Terminal
07.313.2655.0	Partition Plate for WT2.5 - 10mm Terminals Clips on to DIN Rail
07.313.2855.0	Partition Plate for WT16 Terminal Clips on to DIN Rail



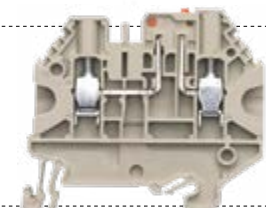
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07.313.2555.0



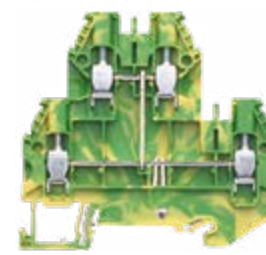
04.344.2255.8

PART NO	DESCRIPTION
<b>WT 4mm Disconnect Terminal - 24A 500V IEC - 6mm Wide</b>	
58.504.2055.0	WT4/TKM - 4mm Terminal with Disconnect facility
07.313.2955.0	AP WT4 D1/2 End plate



58.504.2055.0

PART NO	DESCRIPTION
<b>WT 4mm Double Terminal - 32A 800V - 6mm Wide</b>	
58.504.7055.0	4mm Double Deck Terminal
58.504.7055.6	4mm Double Deck Terminal - Blue
58.504.9255.0	4mm Double Deck Green/Yellow Earth
07.313.3355.0	End plate
07.313.2855.0	Partition plate

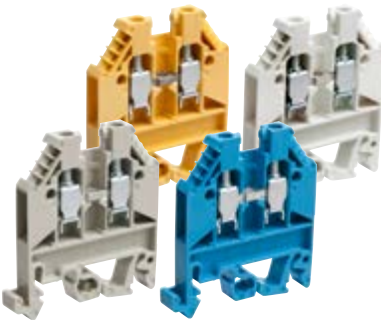
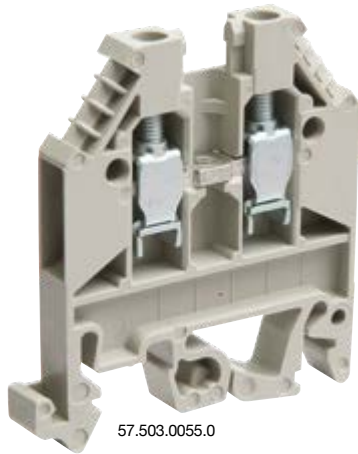


58.504.9255.0

PART NO	DESCRIPTION
<b>Insulated Push-In Jumper Bars for 58 Series Terminals</b>	
Z7.280.6227.0	2 Pole Jumper Bar for 2.5mm Terminals
Z7.280.6327.0	3 Pole Jumper Bar for 2.5mm Terminals
Z7.280.6427.0	4 Pole Jumper Bar for 2.5mm Terminals
Z7.280.6527.0	5 Pole Jumper Bar for 2.5mm Terminals
Z7.280.6627.0	6 Pole Jumper Bar for 2.5mm Terminals
Z7.280.6727.0	7 Pole Jumper Bar for 2.5mm Terminals
Z7.280.6827.0	8 Pole Jumper Bar for 2.5mm Terminals
Z7.280.6927.0	9 Pole Jumper Bar for 2.5mm Terminals
Z7.280.7027.0	10 Pole Jumper Bar for 2.5mm Terminals
Z7.280.8027.0	20 Pole Jumper Bar for 2.5mm Terminals
Z7.261.1227.0	2 Pole Jumper Bar for 4mm Terminals
Z7.261.1327.0	3 Pole Jumper Bar for 4mm Terminals
Z7.261.1427.0	4 Pole Jumper Bar for 4mm Terminals
Z7.261.1527.0	5 Pole Jumper Bar for 4mm Terminals
Z7.261.1627.0	6 Pole Jumper Bar for 4mm Terminals
Z7.261.1727.0	7 Pole Jumper Bar for 4mm Terminals
Z7.261.1827.0	8 Pole Jumper Bar for 4mm Terminals
Z7.261.1927.0	9 Pole Jumper Bar for 4mm Terminals
Z7.261.2027.0	10 Pole Jumper Bar for 4mm Terminals
Z7.282.5227.0	2 Pole Jumper Bar for 6mm Terminals
Z7.282.5327.0	3 Pole Jumper Bar for 6mm Terminals
Z7.282.5427.0	4 Pole Jumper Bar for 6mm Terminals
Z7.282.5527.0	5 Pole Jumper Bar for 6mm Terminals
Z7.283.8227.0	2 Pole Jumper Bar for 10mm Terminals
Z7.284.4227.0	2 Pole Jumper Bar for 16mm Terminals
95.300.0500.0	Notching Tool for removing legs of Jumper bars up to 4mm







PART NO	DESCRIPTION
<b>2.5mm Terminal - 24A 800V - 5mm Wide</b>	
57.503.0055.0	2.5mm Terminal - Grey
57.503.0055.6	2.5mm Terminal - Blue
07.311.0155.0	2.5mm End plate
07.311.1155.0	2.5mm Partition plate
Z7.280.0027.0	80 Pole Jumper Bar
Z7.280.0227.0	2 Pole Jumper Bar
Z7.280.0327.0	3 Pole Jumper Bar
04.343.4756.8	Cover with warning symbol
04.242.5053.0	Blank marker (Box of 25 strips of 10)
<b>4mm Terminal - 32A 800V - 6mm Wide</b>	
57.504.0055.0	4mm Terminal - Grey
57.504.0055.6	4mm Terminal - Blue
57.504.0055.1	4mm Terminal - Black
57.504.0055.2	4mm Terminal - White
57.504.0055.4	4mm Terminal - Brown
57.504.0055.5	4mm Terminal - Red
57.504.0055.8	4mm Terminal - Yellow
57.504.0055.9	4mm Terminal - Orange
07.311.0155.0	4mm End plate
07.311.1155.0	4mm Partition plate
Z7.281.0027.0	70 Pole Jumper Bar
Z7.281.0227.0	2 Pole Jumper Bar
Z7.281.0327.0	3 Pole Jumper Bar
04.343.4856.8	Cover with warning symbol
04.242.6053.0	Blank marker (Box of 25 strips of 10)

PART NO	DESCRIPTION
<b>6mm Terminal - 41A 800V - 8mm Wide</b>	
57.506.0055.0	6mm Terminal - Grey
57.506.0055.6	6mm Terminal - Blue
07.311.0255.0	6mm End plate
07.311.1255.0	6mm Partition plate
Z7.282.0027.0	40 pole jumper bar
04.343.4956.8	Cover with warning symbol
04.242.8053.0	Blank marker (Box of 25 strips of 10)
<b>10mm Terminal - 57A 800V - 10mm Wide</b>	
57.510.0155.0	10mm Terminal - Grey
57.510.0155.6	10mm Terminal - Blue
07.311.6655.0	10mm End plate
07.311.7655.0	10mm Partition plate
Z7.283.6027.0	40 pole jumper bar
04.343.5056.8	Cover with warning symbol
<b>16mm Terminal - 76A 800V - 12mm Wide</b>	
57.516.0155.0	16mm Terminal - Grey
57.516.0155.6	16mm Terminal - Blue
07.311.6755.0	16mm End plate
07.311.7755.0	16mm Partition plate
<b>35mm Terminal - 125A 800V - 16mm Wide</b>	
57.535.0155.0	35mm Terminal - Grey - Enclosed
57.535.0155.6	35mm Terminal - Blue - Enclosed
07.311.7855.0	35mm Partition plate

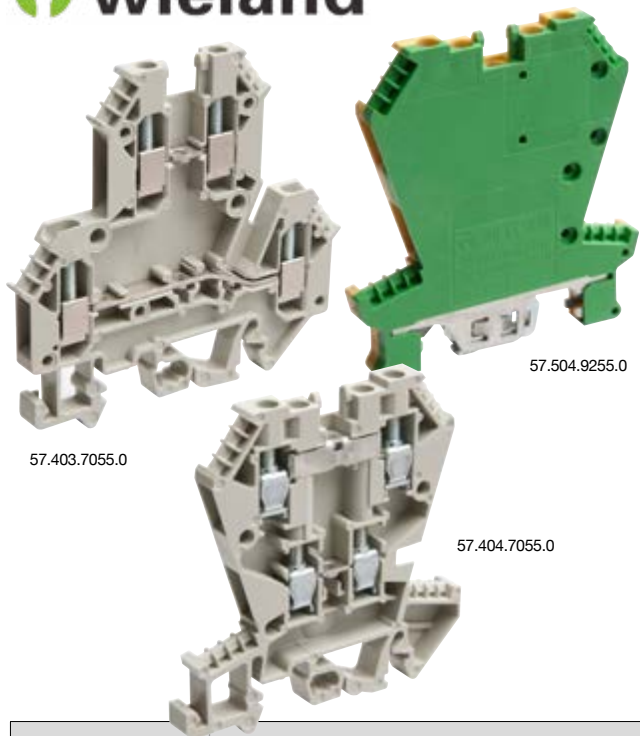


PART NO	DESCRIPTION
<b>Earth Terminals with Universal Metal foot - Suitable for mounting on 'G' &amp; Tophat DIN Rail</b>	
54.504.9055.0	4mm Enclosed Earth Terminal
54.506.9055.0	6mm Enclosed Earth Terminal
54.510.9055.0	10mm Enclosed Earth Terminal
54.516.9055.0	16mm Enclosed Earth Terminal
54.535.9055.0	35mm Enclosed Earth Terminal

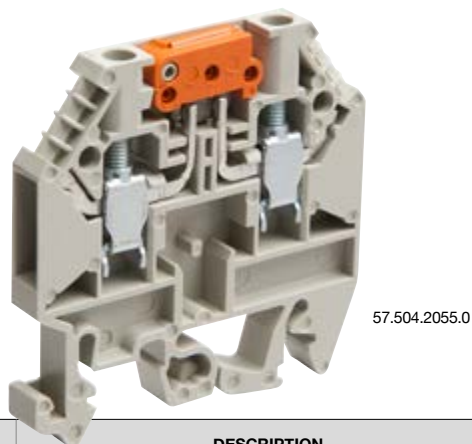
PART NO	DESCRIPTION
<b>Earth Terminals with Metal foot - Suitable for mounting on Tophat DIN Rail only</b>	
57.504.9055.0	4mm Enclosed Earth Terminal
57.506.9055.0	6mm Enclosed Earth Terminal
57.510.9055.0	10mm Enclosed Earth Terminal
57.516.9055.0	16mm Enclosed Earth Terminal
57.535.9055.0	35mm Enclosed Earth Terminal

PART NO	DESCRIPTION
<b>70mm Terminal - 192A 800V - 24mm Wide</b>	
57.570.0155.0	70mm Terminal - Grey
57.570.9055.0	70mm Earth Terminal
07.311.7955.0	70mm Partition plate
<b>150mm Terminal 309A 800V</b>	
57.597.0155.0	150mm Terminal

# INDUSTRIAL CONTROLS • TERMINALS



PART NO	DESCRIPTION
<b>2.5mm Double Terminal - 24A 500V - 5mm Wide</b>	
57.403.7055.0	2.5mm Double Deck Terminal
07.312.1755.0	End plate
07.312.1855.0	Partition plate
<b>4mm Double Terminal - 32A 400V - 6mm Wide</b>	
57.404.7055.0	4mm Double Deck Terminal
07.311.4055.0	End plate
07.311.5055.0	Partition plate
57.504.9255.0	4mm Double Deck Earth Terminal



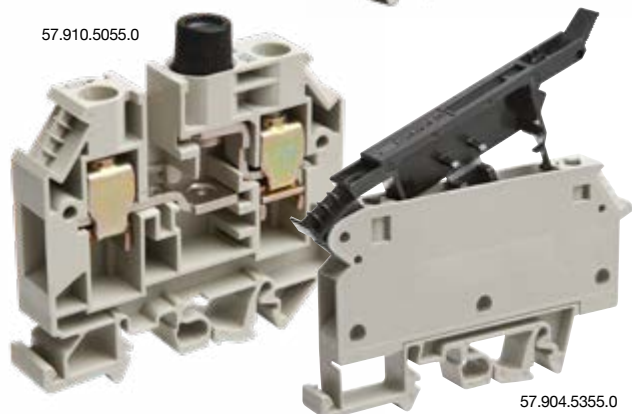
PART NO	DESCRIPTION
<b>4mm Disconnect Terminal - 20A 800V - 6mm Wide</b>	
57.504.2055.0	WK4/TKM - 4mm Terminal with disconnect facility
07.311.6155.0	End plate
Z7.255.4227.0	2 Pole Comb for WK4/TKG & WK4/TKM
Z7.255.4627.0	6 Pole Comb for WK4/TKG & WK4/TKM

PART NO	DESCRIPTION
<b>2.5mm Triple Terminal - 24A 400V - 6mm Wide</b>	
57.503.8855.0	2.5mm Triple Deck Terminal
07.312.1255.0	Partition plate

57.503.8855.0



57.910.5055.0



57.904.5355.0

PART NO	DESCRIPTION
<b>10mm² Fuse Terminal - 500V - 12mm Wide Fuse terminals are to EN60947-7-1, EN60127-6</b>	
57.910.5055.0	Terminal with Screw Down Fuse Carrier (5 x 20mm Fuse)
57.910.5155.0	Terminal with Screw Down Fuse Carrier (5 x 25mm Fuse)
57.910.5355.0	Terminal with Screw Down Fuse Carrier (6.3 x 32mm Fuse)
07.311.4155.0	End plate
<b>4mm² Fuse Terminal - 500V</b>	
57.904.5355.0	Enclosed Terminal with Lift Top for 5 x 20mm, 5 x 25mm & 5 x 30mm Fuses
57.904.6355.0	Enclosed Terminal with Lift Top for 6.3 x 32mm Fuses



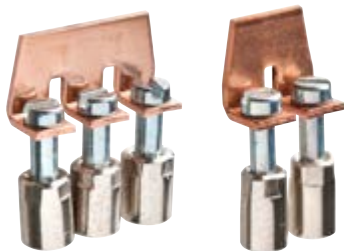
PART NO	DESCRIPTION
<b>End Stops</b>	
Z5.522.7053.0	End clamp suits 'G' rail
Z5.522.7453.0	End clamp suits 'Tophat rail'
Z5.522.8555.0	End clamp with steel clamping bracket for 'Tophat rail'
Z5.523.5653.0	Tall End clamp with galvanised steel clamping bracket for Tophat or 'G' rail
Z5.523.9353.0	Screwless Tophat Rail Clamp
Z5.523.9453.0	Slimline (5mm) Tophat Rail Clamp



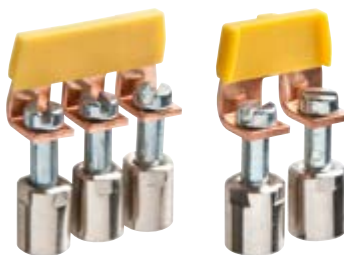
PART NO	DESCRIPTION
<b>5 x 20mm Fuses</b>	
S500-1A	5 x 20mm Fast Blow Glass Fuse - 1A
S500-2A	5 x 20mm Fast Blow Glass Fuse - 2A
S500-4A	5 x 20mm Fast Blow Glass Fuse - 4A
S500-5A	5 x 20mm Fast Blow Glass Fuse - 5A
S500-6A	5 x 20mm Fast Blow Glass Fuse - 6A
S500-10A	5 x 20mm Fast Blow Glass Fuse - 10A



PART NO	DESCRIPTION
<b>Terminal with Plug-in Facility - 31A 800V - 6mm Wide</b>	
57.504.4055.0	WK4/TKG - 4mm Terminal with facility to plug in Fuse or Diode Carrier
07.311.6155.0	End plate
Z1.299.4055.0	Fuse holder (5 x 20mm)
Z1.299.3055.0	Diode Carrier



Uninsulated Jumper Bars



Insulated Jumper Bars

PART NO	DESCRIPTION
<b>Uninsulated Jumper Bars for 57 Series Terminals</b>	
Z7.280.0227.0	2 Pole Jumper Bar for 2.5mm Terminals
Z7.280.0327.0	3 Pole Jumper Bar for 2.5mm Terminals
Z7.280.0427.0	4 Pole Jumper Bar for 2.5mm Terminals
Z7.280.0527.0	5 Pole Jumper Bar for 2.5mm Terminals
Z7.280.0027.0	80 Pole Jumper Bar for 2.5mm Terminals
Z7.281.0227.0	2 Pole Jumper Bar for 4mm Terminals
Z7.281.0327.0	3 Pole Jumper Bar for 4mm Terminals
Z7.281.0427.0	4 Pole Jumper Bar for 4mm Terminals
Z7.281.0527.0	5 Pole Jumper Bar for 4mm Terminals
Z7.281.0027.0	70 Pole Jumper Bar for 4mm Terminals
Z7.282.0227.0	2 Pole Jumper Bar for 6mm Terminals
Z7.282.0327.0	3 Pole Jumper Bar for 6mm Terminals
Z7.282.0427.0	4 Pole Jumper Bar for 6mm Terminals
Z7.282.0527.0	5 Pole Jumper Bar for 6mm Terminals
Z7.282.0027.0	40 Pole Jumper Bar for 6mm Terminals
Z7.283.6227.0	2 Pole Jumper Bar for 10mm Terminals
Z7.283.6327.0	3 Pole Jumper Bar for 10mm Terminals
Z7.283.6427.0	4 Pole Jumper Bar for 10mm Terminals
Z7.283.6527.0	5 Pole Jumper Bar for 10mm Terminals
Z7.283.6027.0	40 Pole Jumper Bar for 10mm Terminals

PART NO	DESCRIPTION
<b>Insulated Jumper Bars for 57 Series Terminals</b>	
Z7.280.2227.0	2 Pole Jumper Bar for 2.5mm Terminals
Z7.280.2327.0	3 Pole Jumper Bar for 2.5mm Terminals
Z7.280.2427.0	4 Pole Jumper Bar for 2.5mm Terminals
Z7.280.2527.0	5 Pole Jumper Bar for 2.5mm Terminals
Z7.280.2627.0	6 Pole Jumper Bar for 2.5mm Terminals
Z7.281.1227.0	2 Pole Jumper Bar for 4mm Terminals
Z7.281.1327.0	3 Pole Jumper Bar for 4mm Terminals
Z7.281.1427.0	4 Pole Jumper Bar for 4mm Terminals
Z7.281.1527.0	5 Pole Jumper Bar for 4mm Terminals
Z7.281.1627.0	6 Pole Jumper Bar for 4mm Terminals
Z7.282.2227.0	2 Pole Jumper Bar for 6mm Terminals
Z7.282.2327.0	3 Pole Jumper Bar for 6mm Terminals
Z7.282.2427.0	4 Pole Jumper Bar for 6mm Terminals
Z7.282.2527.0	5 Pole Jumper Bar for 6mm Terminals
Z7.282.2627.0	6 Pole Jumper Bar for 6mm Terminals
Z7.283.2227.0	2 Pole Jumper Bar for 10mm Terminals
Z7.283.2327.0	3 Pole Jumper Bar for 10mm Terminals
Z7.283.2427.0	4 Pole Jumper Bar for 10mm Terminals
Z7.284.2227.0	2 Pole Jumper Bar for 16mm Terminals
Z7.284.2327.0	3 Pole Jumper Bar for 16mm Terminals
Z7.284.2427.0	4 Pole Jumper Bar for 16mm Terminals
Z7.285.2227.0	2 Pole Jumper Bar for 35mm Terminals
Z7.285.2327.0	3 Pole Jumper Bar for 35mm Terminals
Z7.285.2427.0	4 Pole Jumper Bar for 35mm Terminals

## 35mm Top Hat Slotted Din Rail

• 1 and 2 metre lengths • 35mm x 7.5mm depth

PART NO	DESCRIPTION
ERSTH35S	2m Top Hat Slotted Din Rail
ERSTH35S1M	1m Top Hat Slotted Din Rail





# INDUSTRIAL CONTROLS • MARKING ACCESSORIES



PART NO	DESCRIPTION
<b>Marking Systems - For terminals 5mm wide Each strip consists of 10 markers which are marked sequentially. Each packet consists of 25 strips (MOQ)</b>	
04.845.0153.0	Strips marked 1 -10
04.845.0253.0	Strips marked 11 -20
04.845.0353.0	Strips marked 21 - 30
04.845.0453.0	Strips marked 31 - 40
04.845.0553.0	Strips marked 41 - 50
04.845.0653.0	Strips marked 51 - 60
04.845.0753.0	Strips marked 61 - 70
04.845.0853.0	Strips marked 71 - 80
04.845.0953.0	Strips marked 81 - 90
04.845.1053.0	Strips marked 91 - 100
04.242.5053.0	Blank markers
<b>Marking Systems - For terminals 6mm wide Each strip consists of 10 markers which are marked sequentially. Each packet consists of 25 strips (MOQ)</b>	
04.846.0153.0	Strips marked 1 -10
04.846.0253.0	Strips marked 11 -20
04.846.0353.0	Strips marked 21 - 30
04.846.0453.0	Strips marked 31 - 40
04.846.0553.0	Strips marked 41 - 50
04.846.0653.0	Strips marked 51 - 60
04.846.0753.0	Strips marked 61 - 70
04.846.0853.0	Strips marked 71 - 80
04.846.0953.0	Strips marked 81 - 90
04.846.1053.0	Strips marked 91 - 100
04.242.6053.0	Blank markers

PART NO	DESCRIPTION
<b>Marking Branches - Each strip consists of 10 individual numbers which clip into the moulding of the terminal. The terminal number is made by using individual digits, up to four each side, or six if a tag carrier is used. Each pack consists of 25 strips. (MOQ) Suitable for all terminal sizes</b>	
04.841.1150.0	Strip with 10 x No. 1
04.841.1250.0	Strip with 10 x No. 2
04.841.1350.0	Strip with 10 x No. 3
04.841.1450.0	Strip with 10 x No. 4
04.841.1550.0	Strip with 10 x No. 5
04.841.1650.0	Strip with 10 x No. 6
04.841.1750.0	Strip with 10 x No. 7
04.841.1850.0	Strip with 10 x No. 8
04.841.1950.0	Strip with 10 x No. 9
04.841.2050.0	Strip with 10 x No. 0
04.841.2250.0	Strip with 10 x character A
04.841.2350.0	Strip with 10 x character B
04.841.2450.0	Strip with 10 x character C
04.841.2550.0	Strip with 10 x character D
04.841.2650.0	Strip with 10 x character E
04.841.2750.0	Strip with 10 x character F
04.841.2850.0	Strip with 10 x character G
04.841.2950.0	Strip with 10 x character H
04.841.3050.0	Strip with 10 x character I
04.841.3150.0	Strip with 10 x character J
04.841.3250.0	Strip with 10 x character K
04.841.3350.0	Strip with 10 x character L
04.841.3450.0	Strip with 10 x character M
04.841.3550.0	Strip with 10 x character N
04.841.3650.0	Strip with 10 x character O
04.841.3750.0	Strip with 10 x character P
04.841.3850.0	Strip with 10 x character Q
04.841.3950.0	Strip with 10 x character R
04.841.4050.0	Strip with 10 x character S
04.841.4150.0	Strip with 10 x character T
04.841.4250.0	Strip with 10 x character U
04.841.4350.0	Strip with 10 x character V
04.841.4450.0	Strip with 10 x character W
04.841.4550.0	Strip with 10 x character X
04.841.4650.0	Strip with 10 x character Y
04.841.4750.0	Strip with 10 x character Z
04.242.1250.0	Tag Carrier for 6 markers



The Gesis IP+ range of connectors have been specifically developed for outdoor use but equally can be used where a high IP rating is required. The connections are rated at 250V 20A and suitable for 1.5 - 4mm<sup>2</sup> cable on the screw version. A spring clamp version is also available in which 0.5 - 2.5mm<sup>2</sup> rigid cable can be used. IP66/68. They also feature a removable locking pin.



PART NO	DESCRIPTION
<b>Female Connectors with Screw Terminals</b>	
96.031.4053.1	3 pole Female connector suitable for cable 6 - 10mm diameter
96.031.4153.1	3 pole Female connector suitable for cable 10 - 14mm diameter
96.041.4053.1	4 pole Female connector suitable for cable 6 - 10mm diameter
96.041.4153.1	4 pole Female connector suitable for cable 10 - 14mm diameter
96.051.4053.1	5 pole Female connector suitable for cable 6 - 10mm diameter
96.051.4153.1	5 pole Female connector suitable for cable 10 - 14mm diameter



PART NO	DESCRIPTION
<b>4mm Double Terminal - 32A 400V - 6mm Wide</b>	
96.032.4053.1	3 pole Male connector suitable for cable 6 - 10mm diameter
96.032.4153.1	3 pole Male connector suitable for cable 10 - 14mm diameter
96.042.4053.1	4 pole Male connector suitable for cable 6 - 10mm diameter
96.042.4153.1	4 pole Male connector suitable for cable 10 - 14mm diameter
96.052.4053.1	5 pole Male connector suitable for cable 6 - 10mm diameter
96.052.4153.1	5 pole Male connector suitable for cable 10 - 14mm diameter



PART NO	DESCRIPTION
<b>Distribution Block</b>	
96.030.0153.1	1 Male Input, 3 Female Outputs - 3 Pole with mounting holes
96.030.0253.1	1 Male Input, 3 Female Outputs - 3 Pole



PART NO	DESCRIPTION
<b>Female Connectors with Screw Terminals</b>	
96.031.4253.1	3 pole Female splitter Suitable for cable 6 - 10mm diameter
96.031.4353.1	3 pole Female splitter Suitable for cable 10 - 14mm diameter
96.041.4253.1	4 pole Female splitter Suitable for cable 6 - 10mm diameter
96.041.4353.1	4 pole Female splitter Suitable for cable 10 - 14mm diameter
96.051.4253.1	5 pole Female splitter Suitable for cable 6 - 10mm diameter
96.051.4353.1	5 pole Female splitter Suitable for cable 10 - 14mm diameter

# INDUSTRIAL CONTROLS • CONNECTORS



96.042.5053.1

96.051.5053.1

PART NO	DESCRIPTION
<b>Female Appliance Couplers</b>	
96.031.5053.1	3 pole female appliance coupler M25
96.041.5053.1	4 pole female appliance coupler M25
96.051.5053.1	5 pole female appliance coupler M25
96.031.6053.1	3 pole female appliance coupler M20 Modular Straight
96.041.6053.1	4 pole female appliance coupler M20 Modular Straight
96.051.6053.1	5 pole female appliance coupler M20 Modular Straight
<b>Male Appliance Couplers</b>	
96.032.5053.1	3 pole Male appliance coupler M25
96.042.5053.1	4 pole Male appliance coupler M25
96.052.5053.1	5 pole Male appliance coupler M25
96.032.6053.1	3 pole Male appliance coupler M20 Modular Straight
96.042.6053.1	4 pole Male appliance coupler M20 Modular Straight
96.052.6053.1	5 pole Male appliance coupler M20 Modular Straight



96.232.2000.1

96.232.2004.1

PART NO	DESCRIPTION
<b>Cable Assemblies</b>	
96.232.2000.1	3 pole female to male 2 Metres - 1.5mm <sup>2</sup>
96.232.2003.1	3 pole female to free end 2 Metres - 1.5mm <sup>2</sup>
96.232.2004.1	3 pole male to free end 2 Metres - 1.5mm <sup>2</sup>
96.233.2000.1	3 pole female to male 2 Metres - 2.5mm <sup>2</sup>
96.233.2003.1	3 pole female to free end 2 Metres - 2.5mm <sup>2</sup>
96.233.2004.1	3 pole male to free end 2 Metres - 2.5mm <sup>2</sup>
96.452.2000.1	5 pole female to male 2 Metres - 1.5mm <sup>2</sup>
96.452.2003.1	5 pole female to free end 2 Metres - 1.5mm <sup>2</sup>
96.452.2004.1	5 pole male to free end 2 Metres - 1.5mm <sup>2</sup>
96.453.2000.1	5 pole female to male 2 Metres - 2.5mm <sup>2</sup>
96.453.2003.1	5 pole female to free end 2 Metres - 2.5mm <sup>2</sup>
96.453.2004.1	5 pole male to free end 2 Metres - 2.5mm <sup>2</sup>

The Gesis GST18 range of connectors make it possible to achieve a quick and safe installation. They may be used in a variety of applications but typically the lighting industry, office furniture and for general, light duty distribution. The three pole devices are rated at 250V 20A and the four pole devices at 250/400V 20A. All the components meet the requirements of DIN VDE 0628 and DIN VDE 0606T (EN/IEC 61535). IP20 unplugged / IP40 plugged or covered with caps that can be ordered separately

Z7.410.8550.0



Z7.410.8350.0

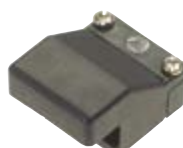
Z7.410.8150.0



92.031.3258.0

92.032.3358.0

Z7.410.8153.0



Z7.410.8353.0  
92.032.3358.1

Z7.410.8553.0  
92.031.3258.1



**4 Pole Screw Connectors**

PART NO	DESCRIPTION
<b>3 Pole Screw Connectors</b>	
92.032.3358.1	Black 3 pole male connector
92.031.3258.1	Black 3 pole female connector
92.032.3358.0	White 3 pole male connector
92.031.3258.0	White 3 pole female connector
Z7.410.8550.0	White female locking hood
Z7.410.8350.0	White male locking hood
Z7.410.8553.0	Black female locking hood
Z7.410.8353.0	Black male locking hood
Z7.410.8150.0	White non-locking hood
Z7.410.8153.0	Black non-locking hood

PART NO	DESCRIPTION
<b>4 Pole Screw Connectors</b>	
92.042.3353.1	Black 4 pole male connector
92.041.3253.1	Black 4 pole female connector
92.042.3353.0	White 4 pole male connector
92.041.3253.0	White 4 pole female connector
Z7.410.6650.0	White female locking hood
Z7.410.6450.0	White male locking hood
Z7.410.6653.0	Black female locking hood
Z7.410.6453.0	Black male locking hood





## Multipole Connectors 3 & 4 Pole + Earth. 10A 415V IP44

PART NO	DESCRIPTION
<b>JKM03</b>	3 Pole+E Male Insert
<b>JKF03</b>	3 Pole+E Female Insert
<b>JKM04</b>	4 Pole+E Male Insert
<b>JKF04</b>	4 Pole+E Female Insert
<b>MKAV20</b>	Metal Top Entry Hood. M20
<b>MKAVG20</b>	Metal Coupling Hood. M20
<b>CKA03I</b>	Metal Panel Mount Housing
<b>MKV20</b>	Plastic Top Entry Hood. M20
<b>MKVG20</b>	Plastic Coupling Hood. M20
<b>CK03I</b>	Plastic Panel Mount Housing

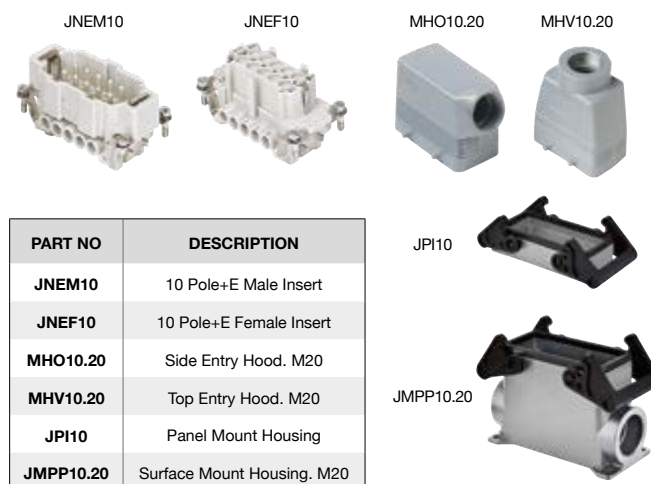


## 6 Pole + Earth. 16A 500V IP65



PART NO	DESCRIPTION
<b>JNEM06</b>	6 Pole+E Male Insert
<b>JNEF06</b>	6 Pole+E Female Insert
<b>MHO06L20</b>	Side Entry Hood. M20
<b>MHV06L20</b>	Top Entry Hood. M20
<b>JPI06L</b>	Panel Mount Housing
<b>JMPP06L20</b>	Surface Mount Housing. M20

## 10 Pole + Earth. 16A 500V IP65



PART NO	DESCRIPTION
<b>JNEM10</b>	10 Pole+E Male Insert
<b>JNEF10</b>	10 Pole+E Female Insert
<b>MHO10.20</b>	Side Entry Hood. M20
<b>MHV10.20</b>	Top Entry Hood. M20
<b>JPI10</b>	Panel Mount Housing
<b>JMPP10.20</b>	Surface Mount Housing. M20

## 16 Pole + Earth. 16A 500V IP65



PART NO	DESCRIPTION
<b>JNEM16</b>	16 Pole+E Male Insert
<b>JNEF16</b>	16 Pole+E Female Insert
<b>MHO16.25</b>	Side Entry Hood. M25
<b>MHV16.25</b>	Top Entry Hood. M25
<b>JPI16</b>	Panel Mount Housing
<b>JMPP16.25</b>	Surface Mount Housing. M25

## 24 Pole + Earth. 16A 500V IP65



PART NO	DESCRIPTION
<b>JNEM24</b>	24 Pole+E Male Insert
<b>JNEF24</b>	24 Pole+E Female Insert
<b>MHO24.25</b>	Side Entry Hood. M25
<b>MHV24.25</b>	Top Entry Hood. M25
<b>JPI24</b>	Panel Mount Housing
<b>JMPP24.25</b>	Surface Mount Housing. M25

# INDUSTRIAL CONTROLS • CRANE CONTROLS

Electrical controls, pendant and limit switches are crucial to the safe and efficient movement and operation of a vast range of machinery in industry from pillar drills to electrically operated travelling cranes.

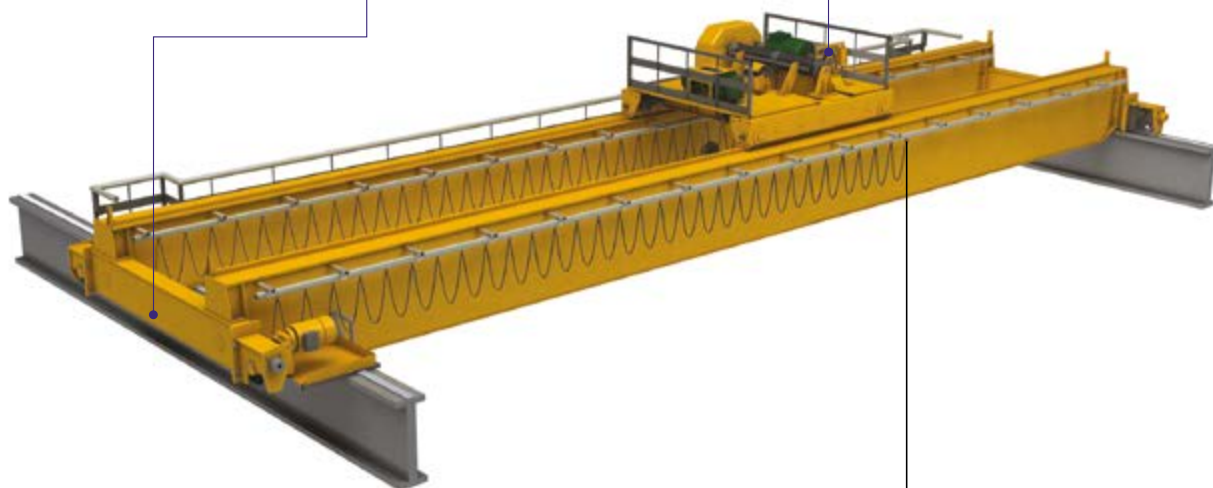
Established in Italy in 1962, TER have consistently focused on continuous innovation, reliability, ISO9001 certified quality and flexibility for customised solutions. Specialising in the design and manufacture of pendant stations and limit switches, TER have a range of control products for use with a wide spectrum of electro-mechanical equipment.



Position Limit Switch



Rotary Limit Switch



Pendant Control Station



# Pendant Push Button Stations - Complete Assemblies

Pendant control stations are used as control devices for all types of industrial machinery. They provide auxiliary control of electrical or actuators through a power interface, such as a contactor or PLC.



**Metreel**

## Charlie Pendant Control Stations

The Charlie Pendant offers a simple solution for basic control of various electrical equipment. Charlie can be configured for simple 2 function operation or 2 function and emergency stop. Single and double action switches are available. Charlie is IP65 rated so is suitable for use in many indoor and outdoor industrial environments.

PART NO	IP RATING	TYPE	E-STOP	BUTTON LEGENDS	
PF39020001	IP65	Single Speed	No	Up	Down
PF39030001	IP65	Single Speed	Yes	Up	Down
PF39020002	IP65	Dual Speed	No	Up	Down
PF39030002	IP65	Dual Speed	Yes	Up	Down

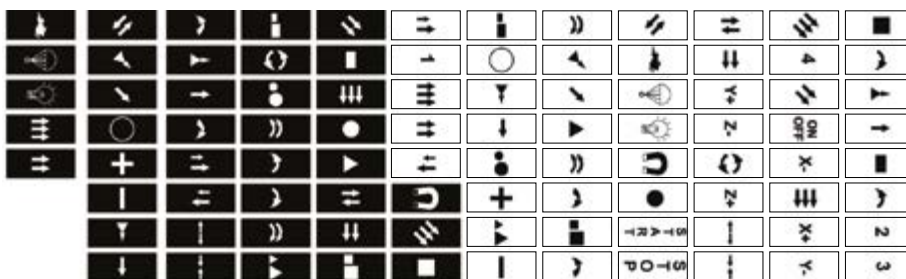


## Mike Pendant Control Stations

The Mike Pendant has been ergonomically designed for ease of use whilst at the same time being robust and being rated to IP65 as standard (and optionally to IP69K) is well suited to even the heaviest duty industrial applications. Available in sizes from 4 - 15 way (with either single or double action switches, with or without mechanical interlocks) the Mike Pendant can be configured for numerous electrical control applications, particularly for overhead crane control within a wide range of industries.

PART NO	IP RATING	WAYS	TYPE	E-STOP	RESET	BUTTON LEGENDS
F70AB12020000001	IP65	4	Single Speed	Yes	Yes	*Configurable
F70AY12000200001	IP65	4	Dual Speed	Yes	Yes	*Configurable
F70EY120400000002	IP65	6	Single Speed	Yes	Yes	*Configurable
F70EY120002000002	IP65	6	Dual Speed	Yes	Yes	*Configurable
F70BY120600000001	IP65	8	Single Speed	Yes	Yes	*Configurable
F70BY120006000001	IP65	8	Dual Speed	Yes	Yes	*Configurable
F70CY121000000001	IP65	10	Single Speed	Yes	Yes	*Configurable
F70CY120010000001	IP65	10	Dual Speed	Yes	Yes	*Configurable
F70DY121200000001	IP65	12	Single Speed	Yes	Yes	*Configurable
F70DY120012000001	IP65	12	Dual Speed	Yes	Yes	*Configurable

\*Mike pendants are supplied with a self adhesive label sheet (see below) allowing total flexibility of button legends.







**Metreel**

## Victor Control Stations

The Victor Control Station is a bulkhead mounted version of the Mike Pendant. Available in 1 to 8 way dual or single action button configurations and with options including, LED back-lit push buttons, rotary selector switches, key switches, momentary or latching emergency stop switches and pilot lights.

The Victor Control Station offers a complete solution for control of a wide array of electro-mechanical equipment from a fixed remote position. Victor can also be attached to ferrous surfaces with the aid of specially designed optional magnetic mounts.



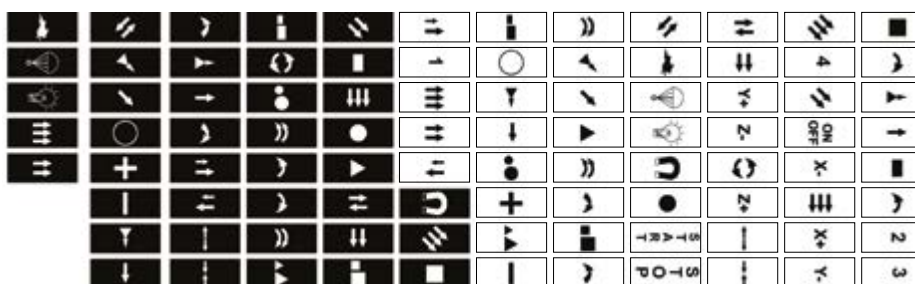
## Complete Assemblies

PART NO	IP RATING	WAYS	COLOUR	MUSHROOM PUSHBUTTON			RESET	BUTTON LEGENDS	
				LATCHED	KEY	IMPULSE		WHITE	BLACK
F71EG10000000001	IP65	1	Grey	Yes	No	No	No	No	No
F71EY10000000001	IP65	1	Yellow	Yes	No	No	No	No	No
F71EG10000000002	IP65	1	Grey	No	Yes	No	No	No	No
F71EY10000000002	IP65	1	Yellow	No	Yes	No	No	No	No
F71EG10000000003	IP65	1	Grey	No	No	Yes	No	No	No
F71EY10000000003	IP65	1	Yellow	No	No	Yes	No	No	No
F71FG11000000001	IP65	2	Grey	Yes	No	No	Yes	No	No
F71FG11000000002	IP65	2	Grey	No	Yes	No	Yes	No	No
F71FG00020000001	IP65	2	Grey	No	No	No	No	Yes	Yes
F71GG10020000001	IP65	3	Grey	Yes	No	No	No	Yes	Yes
F71GG10020000002	IP65	3	Grey	No	Yes	No	No	Yes	Yes

\*Victor Controls Station are supplied with a self adhesive label sheet (see below) allowing total flexibility of button legends.

## Empty Control Shells

PART NO	IP RATING	WAYS	COLOUR
F71EG00000000001	IP65	1	Grey
F71EY00000000001	IP65	1	Yellow
F71FG00000000001	IP65	2	Grey
F71GG00000000001	IP65	3	Grey
F71HG00000000001	IP65	4	Grey
F71IG00000000001	IP65	6	Grey
F71JG00000000001	IP65	8	Grey



## Mike and Victor Components

**LED Element  
24/48V AC/DC**

PART NO.  
PRSL1820PI



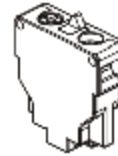
**LED Element  
110/230V AC**

PART NO.  
PRSL1821PI



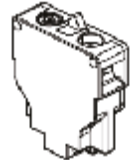
**1 NO Single  
Switch**

PART NO.  
PRSL1800PI



**1 NC Single  
Switch**

PART NO.  
PRSL1801PI



**2 Speed  
Pushbutton**

PART NO.  
PRSL1810PI



**1 Speed  
Pushbutton**

PART NO.  
PRSL1811PI



**Blanking  
Plug**

PART NO.  
PRSL1845PI



**Latched Mushroom  
Pushbutton E-Stop**

PART NO.  
PRSL1880PI



**Key  
Mushroom  
Pushbutton**

PART NO.  
PRSL1890PI



**Selector Switch-  
White 0/1  
Maintained**

PART NO.  
PRSL1856BIC



**Selector Switch-  
White 1/0/2  
Maintained**

PART NO.  
PRSL1858BIC



**Selector Switch-  
White 1/1+2/2  
Maintained**

PART NO.  
PRSL1863BIC



**Mechanical  
Interlock**

PART NO.  
PRSL1850PI



**Button  
Switch  
Spacer**

PART NO.  
PRSL8512PI



**Small  
Protection**

PART NO.  
PRSL1830PI



**Large  
Protection**

PART NO.  
PRSL1831PI



**Closing  
Clip**

PART NO.  
PRTR1035PE



**Cable Sleeve**

PART NO.  
PRSL0145PE



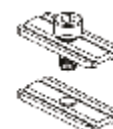
**Hook**

PART NO.  
PRGS0012PE



**Complete  
Wire Clamp**

PART NO.  
PRSL1896PI



**Cable Cover**

PART NO.  
PRSL1836PI



## Mike and Victor Full Colour Legend Disc

Available on request



PART NO.  
PRTA001MPI



PART NO.  
PRTA002MPI



PART NO.  
PRTA003MPI



PART NO.  
PRTA004MPI



PART NO.  
PRTA005MPI



PART NO.  
PRTA006MPI



PART NO.  
PRTA007MPI



PART NO.  
PRTA008MPI



PART NO.  
PRTA011MPI



PART NO.  
PRTA012MPI



13A BS1362	GFL 500mA	GFL 1A	GFL 2A	GFL 2.5A	G
5A BS1362	GFL 5A	GTL 1A	GTL		
3A BS1362	GTL				



# SWITCHGEAR

- 83 Isolators
- 84 Enclosed Switch-Disconnectors
- 87 Enclosed Changeover Switches
- 88 Panel Mount Switch-Disconnectors
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**Industrial**

## 4 Pole Surface Mount Isolators

- IP65 rated
- Flame retardant material
- Easy insulation
- M20/M25 knockouts up to 63A (Top & Bottom)
- M20/M25/M32 knockouts 80-100A (Top & Bottom)
- Padlockable handle in 'Off' position
- Interlocked cover, removable in off position only
- Earth and neutral terminals included
- Captive retained cover screws
- Conforms to IEC60947



PART NO	AMPS AC21	AC23A 240VAC	AC3 400VAC	KNOCKOUTS	COLOUR		DIMENSIONS (H x W x D)
					SOLID	STRANDED	
ERS01204	20A	5.5kW	3.7kW	4 x M20/M25	1-16mm <sup>2</sup>	0.75-10mm <sup>2</sup>	125 x 100 x 120mm
ERS01254	25A	7.5kW	5.5kW	4 x M20/M25	1-16mm <sup>2</sup>	0.75-10mm <sup>2</sup>	125 x 100 x 120mm
ERS01324	32A	11kW	7.5kW	4 x M20/M25	1-16mm <sup>2</sup>	0.75-10mm <sup>2</sup>	175 x 114 x 135mm
ERS01404	40A	15kW	11kW	4 x M20/M25	1-16mm <sup>2</sup>	0.75-10mm <sup>2</sup>	175 x 114 x 135mm
ERS01634	63A	22kW	18.5kW	4 x M20/M25	1-16mm <sup>2</sup>	0.75-10mm <sup>2</sup>	175 x 114 x 135mm
ERS01804	80A	30kW	22kW	4 x M25/M32, 2 x M20	4-50mm <sup>2</sup>	2.5-35mm <sup>2</sup>	240 x 160 x 165mm
ERS011004	100A	37kW	30kW	4 x M25/M32, 2 x M20	4-50mm <sup>2</sup>	2.5-35mm <sup>2</sup>	240 x 160 x 165mm



## Industrial

### 3 Pole + Sw. Neutral Larger Plastic Enclosed Switch-Disconnecter (IP65)

- IEC & EN 60947-3
- 25mm cable entries
- Robust resilient polycarbonate enclosure / UV resistant
- Enclosure glow wire flammability rating 960°C
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- **All switch ratings at AC-21**



PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSP253L	25A	175 x 125 x 90mm	134mm	1 Auxiliary
ERSP323L	32A	175 x 125 x 90mm	134mm	1 Auxiliary
ERSP403L	40A	175 x 125 x 90mm	134mm	1 Auxiliary

### 4 Pole Larger Plastic Enclosed Switch-Disconnecter (IP65)

- IEC & EN 60947-3
- 25mm cable entries
- Robust resilient polycarbonate enclosure / UV resistant
- Provides more wiring space for larger cables
- Enclosure glow wire flammability rating 960°C
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- **All switch ratings at AC-21**



PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSP254L	25A	175 x 125 x 90mm	134mm	1 Auxiliary
ERSP324L	32A	175 x 125 x 90mm	134mm	1 Auxiliary
ERSP404L	40A	175 x 125 x 90mm	134mm	1 Auxiliary

### 3 Pole Metal Clad Enclosed Switch- Disconnectors (IP54)

- IEC & EN 60947-3
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Cover: RAL 7035 / Base: RAL 7043
- **All switch ratings at AC-21**



\*1 either side of the switch

PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSM323-IP54	32A	220 x 145 x 90mm	134mm	2 Auxiliaries*
ERSM633-IP54	63A	220 x 145 x 90mm	134mm	2 Auxiliaries*
ERSM803-IP54	80A	220 x 145 x 90mm	134mm	2 Auxiliaries*

### 4 Pole Metal Clad Enclosed Switch-Disconnectors (IP54)

- IEC & EN 60947-3
- 20mm cable entries up to 40A / 25mm on 63 to 125A
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Cover: RAL 7035  
Base: RAL 7043
- **Switch Ratings:**  
AC-21: 20-80A  
AC-22: 100 & 125A



PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSM324-IP54	32A	220 x 145 x 90mm	134mm	1 Auxiliary
ERSM634-IP54	63A	220 x 145 x 90mm	134mm	1 Auxiliary
ERSM804-IP54	80A	220 x 145 x 90mm	134mm	1 Auxiliary
ERSM1004-IP54	100A	270 x 215 x 125mm	185mm	1 Auxiliary
ERSM1254-IP54	125A	270 x 215 x 125mm	185mm	1 Auxiliary

## 4 Pole Metal Clad Enclosed Switch-Disconnectors (IP65)

- IEC & EN 60947-3
- External mounting brackets for easy fixing
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Epoxy powder coated steel RAL 7035
- **All switch ratings at AC-22**



PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSM324	32A	173 x 100 x 120mm	164mm	-
ERSM634	63A	178 x 178 x 135mm	179mm	1 Auxiliary

## 3 Pole + Sw. Neutral Die Cast Enclosed Switch-Disconnectors (IP65)

- IEC & EN 60947-3
- Robust aluminium die cast enclosure
- 4 x M20 threaded cable entries
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Cover: RAL 7035 / Base: RAL 7043
- **All switch ratings at AC-21**



PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSDC323	32A	152 x 140 x 100mm	144mm	1 Auxiliary
ERSDC633	63A	152 x 140 x 100mm	144mm	1 Auxiliary



## 4 Pole Stainless Steel Enclosed Switch-Disconnectors (IP65)

- IEC & EN 60947-3
- Grade 304 brushed stainless steel
- External mounting brackets for easy fixing
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Particularly suitable for pharmaceutical & food preparation areas
- **All switch ratings at AC-22**

PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERS324SS	32A	173 x 100 x 120mm	164mm	-
ERS634SS	63A	178 x 178 x 135mm	179mm	1 Auxiliary

## 4 Pole Die Cast Enclosed Switch-Disconnectors (IP65)

- IEC & EN 60947-3
- Robust aluminium die cast enclosure
- 4 x M20 threaded cable entries
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Cover: RAL 7035 / Base: RAL 7043
- **All switch ratings at AC-21**



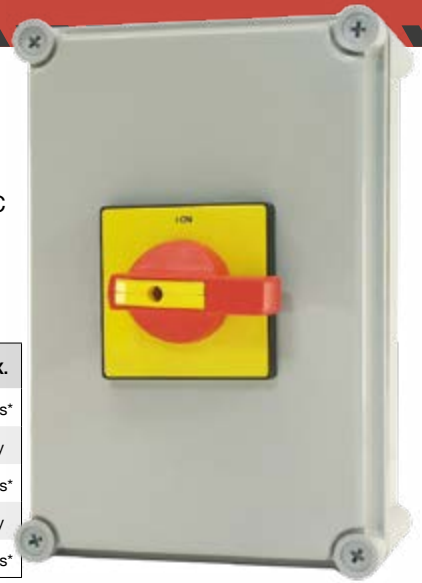
PART NO	AMP	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSDC324	32A	152 x 140 x 100mm	144mm	1 Auxiliary
ERSDC634	63A	152 x 140 x 100mm	144mm	1 Auxiliary



## 6 Pole Enclosed Switch-Disconnectors (IP65)

- IEC & EN 60947-1 and 3
- 25mm cable entries
- Robust polycarbonate enclosure / UV resistant
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Enclosure glow wire flammability rating 960°C
- **All switch ratings at AC-22**

PART NO	DESCRIPTION	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSP256	25A 6 Pole (Insulated Enclosure)	280 x 190 x 130mm	192mm	2 Auxiliaries*
ERSP256/11	25A 6 Pole + 1N/O & 1N/C Aux (Insulated Enclosure)	280 x 190 x 130mm	192mm	1 Auxiliary
ERSP326	32A 6 Pole (Insulated Enclosure)	280 x 190 x 130mm	192mm	2 Auxiliaries*
ERSP326/11	32A 6 Pole + 1N/O & 1N/C Aux (Insulated Enclosure)	280 x 190 x 130mm	192mm	1 Auxiliary
ERSP406	40A 6 Pole (Insulated Enclosure)	280 x 190 x 130mm	192mm	2 Auxiliaries*



## 6 Pole Steel Enclosed Switch-Disconnectors (IP65)

- IEC & EN 60947-3
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Epoxy powder coated steel RAL 7035
- Top and bottom gland plate up to LB636PMESB
- 63A upwards bottom gland plate only
- **All switch ratings at AC-22**

PART NO	DESCRIPTION	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSS256/11	25A 6 Pole + 1N/O & 1N/C Aux (Steel Enclosure)	300 x 250 x 150mm	210mm	1 Auxiliary
ERSS256	25A 6 Pole (Steel Enclosure)	300 x 250 x 150mm	210mm	2 Auxiliaries*
ERSS326/11	32A 6 Pole + 1N/O & 1N/C Aux (Steel Enclosure)	300 x 250 x 150mm	210mm	1 Auxiliary
ERSS326	32A 6 Pole (Steel Enclosure)	300 x 250 x 150mm	210mm	2 Auxiliaries*
ERSS406	40A 6 Pole (Steel Enclosure)	300 x 250 x 150mm	210mm	2 Auxiliaries*
ERSS636	63A 6 Pole (Steel Enclosure)	400 x 300 x 200mm	257mm	2 Auxiliaries*
ERSS636S/11	63A 6 Pole (Smaller Steel Enclosure)	300 x 250 x 150mm	210mm	2 Auxiliaries*
ERSS806	80A 6 Pole (Steel Enclosure)	400 x 300 x 200mm	257mm	2 Auxiliaries*
ERSS1256	125A 6 Pole (Steel Enclosure)	400 x 300 x 200mm	257mm	2 Auxiliaries*



## 8 Pole Enclosed Switch-Disconnectors (IP65)

- IEC & EN 60947-3
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- **Insulated Enclosure:**
  - 25mm cable entries
  - Robust polycarbonate enclosure / UV resistant
  - Enclosure glow wire flammability rating 960°C
- **Steel Enclosure:**
  - Epoxy powder coated steel RAL 7035
  - Bottom gland plate only
- **All switch ratings at AC-22**

PART NO	DESCRIPTION	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSP258	25A 8 Pole (Insulated Enclosure)	280 x 190 x 130mm	190mm	-
ERSP328	32A 8 Pole (Insulated Enclosure)	280 x 190 x 130mm	190mm	-
ERSP408	40A 8 Pole (Insulated Enclosure)	280 x 190 x 130mm	190mm	-
ERSP638	63A 8 Pole (Steel Enclosure)	400 x 300 x 200mm	260mm	2 Auxiliaries*



\*1 either side of the switch



## Industrial

### 2 Pole Enclosed Changeover Switches (IP65)

- EN 60947-3
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Manual break before make 3 position switch / centre OFF
- **All switch ratings AC-21A**



PART NO	DESCRIPTION	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE
ERSPCO252	25A 2 Pole (Insulated Enclosure)	175 x 151 x 95mm	129mm
ERSPCO322	32A 2 Pole (Insulated Enclosure)	175 x 151 x 95mm	129mm
ERSPCO402	40A 2 Pole (Insulated Enclosure)	175 x 151 x 95mm	129mm
ERSPCO632	63A 2 Pole (Insulated Enclosure)	180 x 182 x 137mm	178mm
ERSPCO1002	100A 2 Pole (Insulated Enclosure)	254 x 180 x 137mm	178mm

### 4 Pole Enclosed Manual Changeover Switches

- IEC & EN 60947-3
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- **IP65 Insulated Enclosure:**
  - 25mm cable entries / Easy access & switch removal
  - Robust polycarbonate enclosure / UV resistant
  - Enclosure glow wire flammability rating 960°C
- **IP54 Metal Clad Enclosure:**
  - Cover: RAL 7032 / Base: RAL 7043
- **IP65 Steel Enclosure:**
  - Bottom gland plate
  - Epoxy powder coated steel
  - RAL 7035
- **Glass Reinforced Polycarbonate Enclosure:**
  - UV Resistant / Enclosure glow wire flammability rating 960°C
  - RAL: 7035
- **All switch ratings at AC-22**
- Break before make 3 position switch - centre OFF
- 4P changeover switches are fitted with 2 early make / late break neutral contacts



\*\*With extended auxiliaries (ERSENEU63RM either side of the switch

PART NO	DESCRIPTION	IP RATING	HEIGHT x WIDTH x DEPTH	DEPTH INC. HANDLE	ADD. AUX.
ERSPCO254	25A 4 Pole (Insulated Enclosure)	IP65	280 x 190 x 130mm	190mm	-
ERSPCO324	32A 4 Pole (Insulated Enclosure)	IP65	280 x 190 x 130mm	190mm	-
ERSPCO404	40A 4 Pole (Insulated Enclosure)	IP65	280 x 190 x 130mm	190mm	-
ERSMCO254	25A 4 Pole (Metal Clad Enclosure)	IP54	270 x 215 x 125mm	185mm	2 Auxiliaries**
ERSMCO324	32A 4 Pole (Metal Clad Enclosure)	IP54	270 x 215 x 125mm	185mm	2 Auxiliaries**
ERSMCO404	40A 4 Pole (Metal Clad Enclosure)	IP54	270 x 215 x 125mm	185mm	2 Auxiliaries**
ERSMCO634	63A 4 Pole (Metal Clad Enclosure)	IP54	270 x 215 x 125mm	185mm	2 Auxiliaries**
ERSMCO634S	63A 4 Pole (Steel Enclosure)	IP65	400 x 300 x 200mm	260mm	2 Auxiliaries**
ERSMCO804S	80A 4 Pole (Steel Enclosure)	IP65	400 x 300 x 200mm	260mm	-
ERSMCO1254S	125A 4 Pole (Steel Enclosure)	IP65	400 x 300 x 200mm	260mm	-
ERSGRPCO1254	125A 4 Pole (Glass Reinforced Polycarbonate Enclosure)	IP66	500 x 400 x 210mm	270mm	-

# SWITCHGEAR • PANEL MOUNT SWITCH-DISCONNECTORS



## Panel Mount/Door Mount Switch-Disconnecter

### Industrial

- IEC & EN 60947-3
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- **All switch ratings at AC-22**
- **Use rubber gasket (ERSGASKET) for IP65 rating - sold separately (see below)**

PART NO	DESCRIPTION
ERSPM253	25A 3P Panel Mount
ERSPM323	32A 3P Panel Mount
ERSPM403	40A 3P Panel Mount
ERSPM633	63A 3P Panel Mount
ERSPM1003	100A 3P Panel Mount



### Switch-Disconnecter - Operating Temperatures

The normal operating temperature range for our switch-disconnectors is from -25°C to +40°C. For ambient temperatures of more than +40°C the switch has to be de-rated accordingly.

The table above shows the percentage of derating in load for different temperature ranges. The maximum operating temperature of our switches in continuous use is +80°C.

TEMP.	DERATING %	20A	25A	32A	40A	63A	80A	100A	125A
40°C	100%	20A	25A	32A	40A	63A	80A	100A	125A
45°C	95%	19A	24A	30A	38A	60A	76A	95A	119A
50°C	90%	18A	23A	29A	36A	57A	72A	90A	113A
55°C	85%	17A	21A	27A	34A	54A	68A	85A	106A
60°C	80%	16A	20A	26A	32A	50A	64A	80A	100A
65°C	75%	15A	19A	24A	30A	47A	60A	75A	94A
70°C	70%	14A	18A	22A	28A	44A	56A	70A	88A
75°C	65%	13A	16A	21A	26A	41A	52A	65A	81A
80°C	60%	12A	15A	19A	24A	38A	48A	60A	75A

### Rubber Gasket

- For use with panel mount & door interlock devices to improve ingress protection rating to IP65 on OEM installations

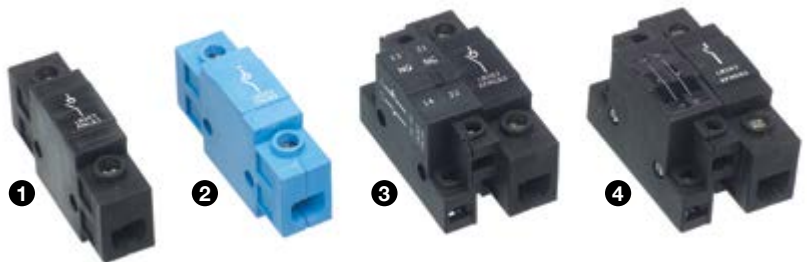


PART NO	DESCRIPTION
ERSGASKET	Gasket Providing IP65 Protection

### Panel Mount Auxiliaries for Panel Mount Switch Disconnectors

- CE
- IEC & EN 60947-3
- **All switch ratings at AC-22**

PART NO	DESCRIPTION
1 ERSNEU63PM	25A-63A Neutral Pole (Early Make Late Break)
2 ERSMAN63PM	25A-63A Main Pole Contact
3 ERSEMAN63PM	20-63A Extended Aux Main Pole + 1N/O & 1N/C Contact F/M 6A
4 ERSENEU63PM	20-63A Extended Aux Neutral Pole + 1N/O & 1N/C Contact F/M 6A



### Cam Switches Single Hole Fixing 16A (AC21A / AC1)

- CE Certified
- Operating temp -25°C to +55°C
- IP65 rated (From front)
- 48 x 48mm bezels / Hole size: 22.5mm

PART NO	DESCRIPTION
1 ERSC52/OFF/ON	OFF-ON Switch 2 Pole
ERSC52/102	1-0-2 Switch 2 Pole
2 ERSC54/OFF/ON	OFF-ON Switch 4 Pole
3 ERSC56/102	1-0-2 Switch 6 Pole





# SWITCHGEAR • ROTARY CAM SWITCHES



## GX Series ON/OFF Switches



PART NO	IEC CURRENT AC1 [A]	FRONT PLATE [mm]	SWITCH POSITIONS
<b>One-pole - 1 wafer - scheme 90. Front mount</b>			
GX1690U	16	48	
GX2090U	20	48	
GX3290U	32	65	
GX4090U	40	65	
<b>Two-pole - 1 wafer - scheme 91. Front mount</b>			
GX1691U	16	48	
GX2091U	20	48	
GX3291U	32	65	
GX4091U	40	65	
<b>Two-pole - 1 wafer - scheme 10. Front mount</b>			
GX1610U	16	48	
GX2010U	20	48	
GX3210U	32	65	
GX4010U	40	65	
<b>Three-pole - 2 wafers - scheme 92. Front mount</b>			
GX1692U	16	48	
GX2092U	20	48	
GX3292U	32	65	
GX4092U	40	65	

## GX Series Changeover Switches with 0 Position



PART NO	IEC CURRENT AC1 [A]	FRONT PLATE [mm]	SWITCH POSITIONS
<b>Two-pole - 2 wafer - scheme 52. Front mount</b>			
GX1652U	16	48	
GX2052U	20	48	
GX3252U	32	65	
GX4052U	40	65	
<b>Three-pole - 3 wafer - scheme 53. Front mount</b>			
GX1653U	16	48	
GX2053U	20	48	
GX3253U	32	65	
GX4053U	40	65	
<b>Four-pole - 4 wafers - scheme 75. Front mount</b>			
GX1675U	16	48	
GX2075U	20	48	
GX3275U	32	65	
GX4075U	40	65	



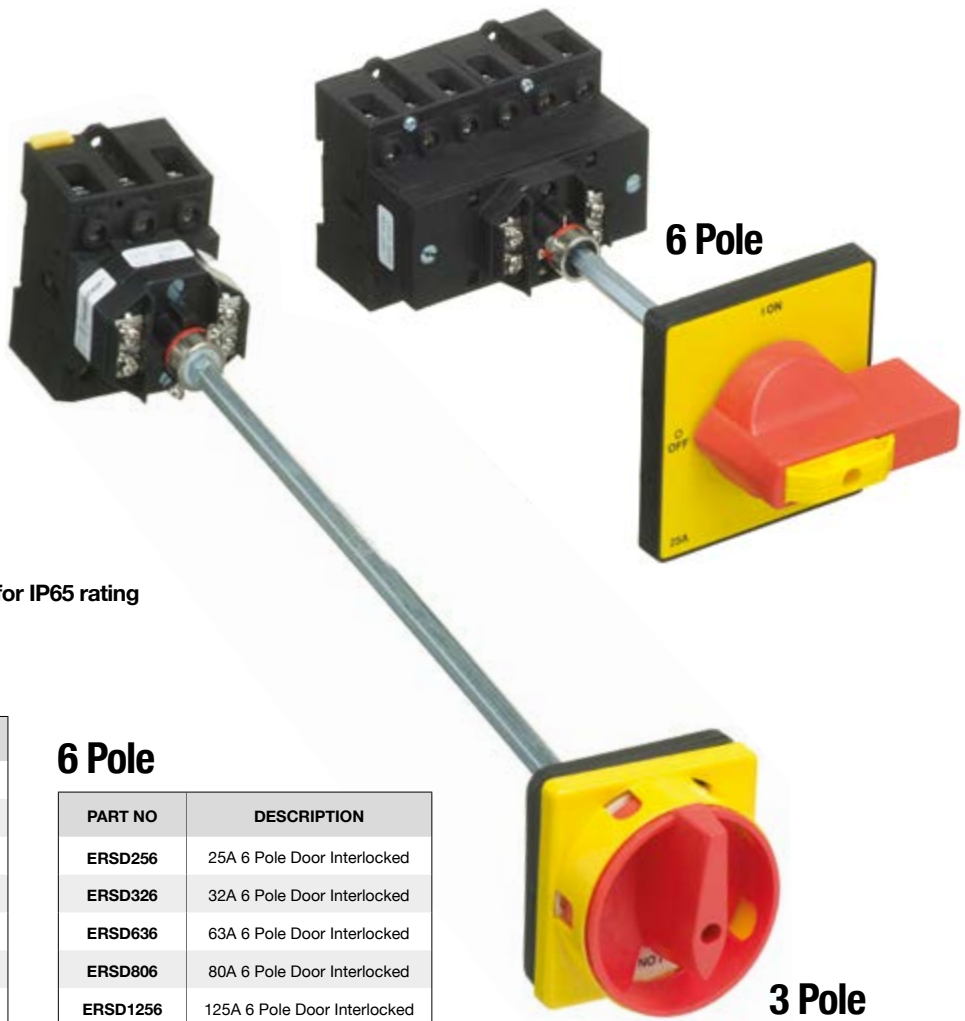
## GX series Voltmeter / Ammeter Switches

PART NO	IEC CURRENT AC1 [A]	FRONT PLATE [mm]	SWITCH POSITIONS
<b>Voltmeter switch - for 1 phase voltage and 3 phase to phase voltage readings 3 wafers - scheme 60. Front mount</b>			
GX1652U	16	48	
<b>For L1-L2-L3 readings via 3 CTs - 4 wafers - scheme 98. Front mount</b>			
GX4075U	40	65	



## Industrial Door Interlock Switch Disconnect Isolator with Metal Shaft

- IEC & EN 60947-3
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- Rear mount or snap on din rail mount (35mm)
- Shaft 8mm across flats (hexagonal)
- (Length 282mm 3P / 94mm 6P)
- **All switch ratings at AC-22**
- **Use rubber gasket (ERSGASKET) for IP65 rating - sold separately (see page 108)**



### 3 Pole

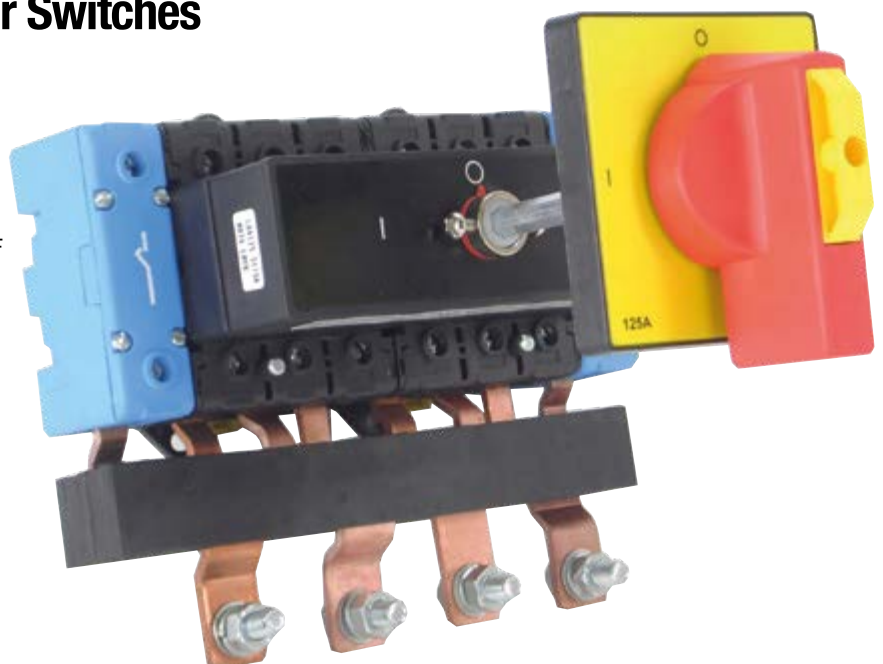
PART NO	DESCRIPTION
ERSD253	25A 3 Pole Door Interlocked
ERSD323	32A 3 Pole Door Interlocked
ERSD403	40A 3 Pole Door Interlocked
ERSD633	63A 3 Pole Door Interlocked
ERSD803	80A 3 Pole Door Interlocked
ERSD1003	100A 3 Pole Door Interlocked
ERSD1253	125A 3 Pole Door Interlocked

### 6 Pole

PART NO	DESCRIPTION
ERSD256	25A 6 Pole Door Interlocked
ERSD326	32A 6 Pole Door Interlocked
ERSD636	63A 6 Pole Door Interlocked
ERSD806	80A 6 Pole Door Interlocked
ERSD1256	125A 6 Pole Door Interlocked

## Door Interlock Changeover Switches

- IEC & EN 60947-3
- Rear mount or snap on din rail mount (35mm)
- Door interlock (Door opens in OFF position only)
- Padlockable in the OFF position for added security (For up to 3 padlocks)
- **All switch ratings at AC-22**
- Break before make 3 position switch - centre OFF
- 4P Changeover switches are fitted with 2 early make / late break neutral contacts
- **Complete with busbars. Metal shaft length 98mm - shaft 8mm across flats (Hexagonal). A 282mm long shaft is available on request**



PART NO	DESCRIPTION
ERSCD634	63A 4 Pole
ERSCD804	80A 4 Pole
ERSCD1254	125A 4 Pole



## Industrial

# Switched Neutral Pole (Early Make Late Break)

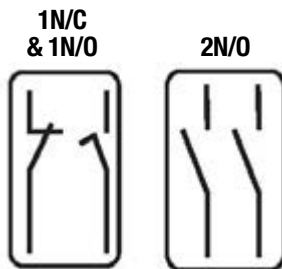
- IEC & EN 60947-3
- Neutral pole / fully rated
- For use with rear mount door interlocked and enclosed switch disconnect isolators
- Colour coded in blue for easy identification
- **All Switch Ratings at AC-22**



PART NO	DESCRIPTION
ERSAUX63EM	25A-63A Neutral Pole
ERSAUX125EM	80-125A Neutral Pole

## Volt Free Auxiliary Contact

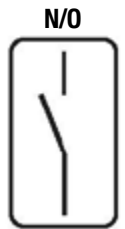
- IEC & EN60947-3
- Rear mount for door interlocked & enclosed switch-disconnectors
- Volt free contacts rated at AC-15 6A 230V / 4A 415V
- Maximum terminal capacity 1.5mm<sup>2</sup>
- 1N/O contact early break / late make and 1N/C contact



PART NO	DESCRIPTION
ERSVFC63RM	20-63A Aux Switch 1N/C & 1N/O R/M 6A
ERSVFC125RM	80A to 125A Aux switch 1N/C & 1N/O R/M 6A
ERSVFC63RM2NO	20-63A Aux Switch 2N/O R/M 6A
ERSVFC125RM2NO	80-125A Aux Switch 2N/O R/M 6A

## Main Pole

- IEC & EN 60947-3
- Main pole for when an additional pole is required
- For use with rear mount door interlocked and enclosed switch disconnect isolators
- **All switch ratings at AC-22**



PART NO	DESCRIPTION
ERSMAIN63RM	25A-63A Main Pole R/M 6A
ERSMAIN125RM	80-125A Main Pole R/M 6A

## Extended Auxiliaries

- IEC & EN 60947-3
- Combined main or neutral pole with volt free contacts (1N/O and 1N/C)
- Allows for additional volt free contact to be fitted on a 4 pole switch (Note the fourth pole or neutral contact (if fitted) must be removed)
- **All main pole and neutral contacts rated at AC-22 (25-63A)**



PART NO	DESCRIPTION
ERSEMAIN63RM	20-63A Extended Aux Main Pole + 1N/C & 1N/O Contact R/M 6A
ERSENEU63RM	20-63A Extended Aux Neutral Pole + 1N/C & 1N/O Contact R/M 6A



# SWITCHGEAR • DOOR INTERLOCK SWITCH-DISCONNECTORS



Industrial



## Door Interlocked Switch-Disconnectors 160-1000A

- CE Certified
- EN 60947-3
- Supplied with IP65 door handle and shaft / Handle padlockable in the OFF position for up to 3 padlocks
- Handle with defeat mechanism (for authorised personnel only) / Neutral switch contact early make / late break (Where fitted)
- 160A with tunnel terminals / 200-1000A with lug terminals / Terminal shrouds sold separately
- All AC ratings 400V (415V)

### 3 Pole Door Interlocked Switch-Disconnectors

PART NO	DESCRIPTION
ERSD1603P	160A (AC-23) Door Interlock 3P Switch-Disconnecter & Handle
ERSD2003P	200A (AC-22) Door Interlock 3P Switch-Disconnecter & Handle
ERSD2503P	250A (AC-22) Door Interlock 3P Switch-Disconnecter & Handle
ERSD3153P	315A (AC-23) Door Interlock 3P Switch-Disconnecter & Handle
ERSD4003P	400A (AC-23) Door Interlock 3P Switch-Disconnecter & Handle
ERSD5003P	500A (AC-23) Door Interlock 3P Switch-Disconnecter & Handle
ERSD6303P	630A (AC-23) Door Interlock 3P Switch-Disconnecter & Handle
ERSD8003P	800A (AC-22) Door Interlock 3P Switch-Disconnecter & Handle
ERSD10003P	1000A (AC-22) Door Interlock 3P Switch-Disconnecter & Handle

### 3 Pole + Sw. Neutral Door Interlocked Switch-Disconnectors

PART NO	DESCRIPTION
ERSD1603PSN	160A (AC-23) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD2003PSN	200A (AC-22) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD2503PSN	250A (AC-22) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD3153PSN	315A (AC-23) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD4003PSN	400A (AC-23) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD5003PSN	500A (AC-23) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD6303PSN	630A (AC-23) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD8003PSN	800A (AC-22) Door Interlock 3P + Sw. Neutral Switch & Handle
ERSD10003PSN	1000A (AC-22) Door Interlock 3P + Sw. Neutral Switch & Handle

## Accessory selection table

PART NO (DOOR INTERLOCK)	INPUT TERMINAL SHROUD SETS	OUTPUT TERMINAL SHROUD SETS	AUXILIARY CONTACT 1N/O & 1N/C	AUXILIARY CONTACT 2N/O & 2N/C
<b>3 Pole Switch-Disconnectors</b>				
ERSD1603P	With Tunnel Terminals, Shroud Sets Not Required			
ERSD2003P	ERSTS250	ERSTS250		
ERSD2503P				
ERSD3153P	ERSTS020	ERSTS020		
ERSD4003P	ERSTS030	ERSTS030	ERSAC010	ERSAC020
ERSD5003P				
ERSD6303P	ERSTS040	ERSTS040		
ERSD8003P				
ERSD10003P	ERSTS160	ERSTS160		
<b>3 Pole + Switched Neutral Switch-Disconnectors</b>				
ERSD1603PSN	With Tunnel Terminals, Shroud Sets Not Required			
ERSD2003PSN	ERSTS260	ERSTS260		
ERSD2503PSN				
ERSD3153PSN	ERSTS020	ERSTS020		
ERSD4003PSN	ERSTS030	ERSTS030	ERSAC010	ERSAC020
ERSD5003PSN				
ERSD6303PSN	ERSTS040	ERSTS040		
ERSD8003PSN				
ERSD10003PSN	ERSTS160	ERSTS160		



## Industrial



### Door Interlocked BS88 Switch Fuses 125-800A

- CE Certified
- EN 60947-3
- Handle padlockable in the OFF position for up to 3 padlocks / Handle with defeat mechanism (For authorised personnel only)
- Fuses fully isolated (Top & bottom) for safe replacement / Fuse covers fitted as standard
- NB: Fuses sold separately (Bolted Type)
- Neutral switch contact early make / late break (Where fitted) / Supplied with IP65 door handle and shaft
- 125A with tunnel terminals / 160-800A with lug terminals / Terminal shrouds sold separately / All AC ratings 400V (415V)

#### 3 Pole Door Interlocked BS88 Switch Fuses

PART NO	DESCRIPTION
ERSFD1253P	125A (AC-23) Door Interlock 3P BS88 Switch Fuse & Handle
ERSFD1603P	160A (AC-23) Door Interlock 3P BS88 Switch Fuse & Handle
ERSFD2003P	200A (AC-23) Door Interlock 3P BS88 Switch Fuse & Handle
ERSFD3153P	315A (AC-23) Door Interlock 3P BS88 Switch Fuse & Handle
ERSFD4003P	400A (AC-23) Door Interlock 3P BS88 Switch Fuse & Handle
ERSFD6303P	630A (AC-23) Door Interlock 3P BS88 Switch Fuse & Handle
ERSFD8003P	800A (AC-22) Door Interlock 3P BS88 Switch Fuse & Handle

#### 3 Pole + Sw. Neutral Door Interlocked BS88 Switch Fuses

PART NO	DESCRIPTION
ERSFD1253PSN	125A (AC-23) Door Interlock 3P + Sw. Neutral BS88 Switch Fuse & Handle
ERSFD1603PSN	160A (AC-23) Door Interlock 3P + Sw. Neutral BS88 Switch Fuse & Handle
ERSFD2003PSN	200A (AC-23) Door Interlock 3P + Sw. Neutral BS88 Switch Fuse & Handle
ERSFD3153PSN	315A (AC-23) Door Interlock 3P + Sw. Neutral BS88 Switch Fuse & Handle
ERSFD4003PSN	400A (AC-23) Door Interlock 3P + Sw. Neutral BS88 Switch Fuse & Handle
ERSFD6303PSN	630A (AC-23) Door Interlock 3P + Sw. Neutral BS88 Switch Fuse & Handle
ERSFD8003PSN	800A (AC-22) Door Interlock 3P + Sw. Neutral BS88 Switch Fuse & Handle

### Accessory selection table

PART NO (DOOR INTERLOCK)	INPUT TERMINAL SHROUD SETS	OUTPUT TERMINAL SHROUD SETS	AUXILIARY CONTACT 1N/O & 1N/C	AUXILIARY CONTACT 2N/O & 2N/C
<b>3 Pole Switch-Disconnectors</b>				
ERSFD1253P	With Tunnel Terminals, Shroud Sets Not Required		ERSAC050	ERSAC060
ERSFD1603P	ERSTS050	ERSTS060	ERSAC010	ERSAC020
ERSFD2003P				
ERSFD3153P	ERSTS080	ERSTS090	ERSAC010	ERSAC020
ERSFD4003P				
ERSFD6303P	ERSTS110	ERSTS120	ERSAC010	ERSAC020
ERSFD8003P				
<b>3 Pole + Switched Neutral Switch-Disconnectors</b>				
ERSFD1253PSN	With Tunnel Terminals, Shroud Sets Not Required		ERSAC050	ERSAC060
ERSFD1603PSN	ERSTS070	ERSTS070	ERSAC010	ERSAC020
ERSFD2003PSN				
ERSFD3153PSN	ERSTS100	ERSTS100	ERSAC010	ERSAC020
ERSFD4003PSN				
ERSFD6303PSN	ERSTS130	ERSTS130	ERSAC010	ERSAC020
ERSFD8003PSN				



Industrial

## 3 Pole + Sw. Neutral Door Interlocked Changeover Switches

- CE Certified
- EN 60947-3
- Supplied with IP65 door handle and shaft
- Handle padlockable in the OFF position for up to 3 padlocks
- Handle with defeat mechanism (for authorised personnel only)
- Neutral switch contact early make / late break
- Terminal shrouds supplied separately
- Break before make 3 position switch - centre OFF
- All switches with lug terminals
- All AC ratings 400V (415V)



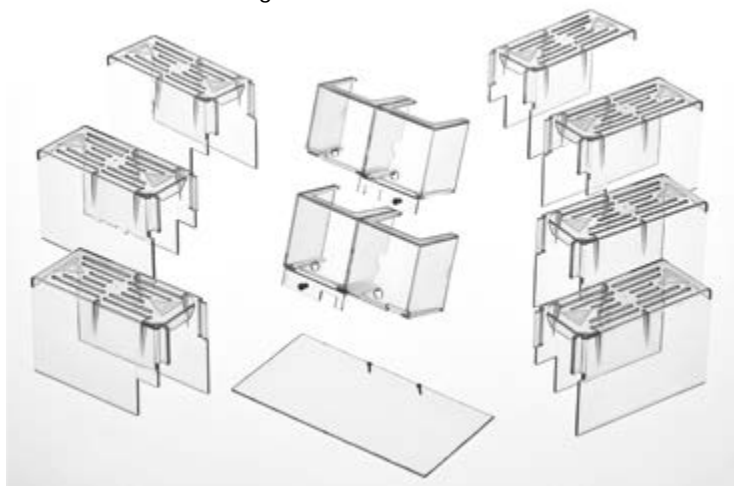
PART NO	DESCRIPTION
ERSCD1603PSN	160A (AC-23) Door Interlock 3P + Sw. Neutral C/O Switch & Handle
ERSCD2003PSN	200A (AC-22) Door Interlock 3P + Sw. Neutral C/O Switch & Handle
ERSCD2503PSN	250A (AC-22) Door Interlock 3P + Sw. Neutral C/O Switch & Handle
ERSCD3153PSN	315A (AC-22) Door Interlock 3P + Sw. Neutral C/O Switch & Handle
ERSCD4003PSN	400A (AC-22) Door Interlock 3P + Sw. Neutral C/O Switch & Handle
ERSCD6303PSN	630A (AC-22) Door Interlock 3P + Sw. Neutral C/O Switch & Handle
ERSCD8003PSN	800A (AC-22) Door Interlock 3P + Sw. Neutral C/O Switch & Handle
ERSCD10003PSN	1000A (AC-23) Door Interlock 3P + Sw. Neutral C/O Switch & Handle

## Accessory selection table

PART NO (DOOR INTERLOCK)	INPUT TERMINAL SHROUD SETS	OUTPUT TERMINAL SHROUD SETS	AUXILIARY CONTACT 1N/O & 1N/C	AUXILIARY CONTACT 2N/O & 2N/C
ERSCD1603PSN	ERSTS230	ERSTS230		
ERSCD2003PSN	ERSTS260	ERSTS260	ERSAC030	ERSAC040
ERSCD2503PSN				
ERSCD3153PSN	ERSTS070	ERSTS140		
ERSCD4003PSN				
ERSCD6303PSN	ERSTS100	ERSTS150	ERSAC010	ERSAC020
ERSCD8003PSN				
ERSCD10003PSN	ERSTS130	ERSTS170		

## Terminal Shrouds for ERSCD Range

- To provide IP20 terminal protection on the input and output terminals
- Transparent terminal shrouds to assist in maintenance and inspection
- NB: ERSTS130 shroud for ERSF630-800A (Input / output) is also suitable for the ERSC1000A (input)
- 2 sets of input terminal shrouds are required (Input 1 & input 2) for 315-1000A changeover switches



PART NO	DESCRIPTION
ERSTS020	Shroud Set for ERS315A 3P3PSN (input / output)
ERSTS030	Shroud Set for ERS400A 3P3PSN (input / output)
ERSTS040	Shroud Set for ERS630-800A (input / output)
ERSTS050	Shroud Set for ERSF160-200A 3P (input)
ERSTS060	Shroud Set for ERS160-200A 3P (output)
ERSTS070	Shroud Set for ERSF160-200A 3PSN, ERSC315-400A (input)
ERSTS080	Shroud Set for ERSF315-400A 3P (input)
ERSTS090	Shroud Set for ERSF315-400A 3P (output)
ERSTS100	Shroud Set for ERSF315-400A 3PSN, ERSC630-800A (input)
ERSTS110	Shroud Set for ERSF630-800A 3P (input)
ERSTS120	Shroud Set for ERSF630-800A 3P (output)
ERSTS130	Shroud Set for ERSF630-800A 3PSN (input / output)
ERSTS140	Shroud Set for ERSC315-400A 3PSN (output)
ERSTS150	Shroud Set for ERSC630-800A 3PSN (output)
ERSTS160	Shroud Set for ERS1000A (input or output)
ERSTS170	Shroud Set for ERSC1000A (output)
ERSTS230	ERSMFS/ERSMCO 200-250A 3P Top/bottom shroud
ERSTS260	ERSMFS/ERSMCO 200-250A 4P Top/bottom shroud





## Industrial

### Auxiliary Contacts for ERSCD Range

- CE Certified
- Complete with fixings
- 16A resistive loads
- 4A inductive loads at 240V AC



PART NO	DESCRIPTION
ERSAC010	1N/O + 1N/C Aux. Contact for ERSF 160-800A, ERSC 315-800A
ERSAC020	2N/O + 2N/C Aux. Contact for ERSF 160-800A, ERSC 315-800A
ERSAC030	1N/O + 1N/C Aux. Contact for ERSC 160-250A
ERSAC040	2N/O + 2N/C Aux. Contact for ERSC 160-250A
ERSAC050	1N/O + 1N/C Aux. Contact for ERSF 125A
ERSAC060	2N/O + 2N/C Aux. Contact for ERSF 125A



### 160-250A Bridging Links for ERSCD Range

- CE Certified
- Bridging links can be connected to either side of the changeover switch
- Bridging links are not required for switches rated at 315-800A as these come complete with internal bridging links
- Rated up to 250A
- Both enclosed and door interlock ERSC160 - 250A switches are supplied with bridging links as standard

PART NO	DESCRIPTION
ERSCBL010	Bridging Links ERSC160-250A



### Neutral Links for ERSCD Range

- CE Certified
- 100% fully rated / Tested to IEC 61439
- Conductor: Tin plated high conductivity copper
- Support: Glass reinforced polyamide 6.6
- Equipment voltage  $U_e$ : 690V / Insulation voltage  $U_i$ : 690V
- Impulse voltage  $U_{imp}$ : 8kV / Easy to use link disconnect
- UL 94-VO shroud covers available for added protection

PART NO	DESCRIPTION
ERSNL125A	Neutral Link 125A
ERSNL250A	Neutral Link 250A
ERSNL400A	Neutral Link 400A
ERSNL630A	Neutral Link 630A
ERSNL800A	Neutral Link 800A
ERSNL1000A	Neutral Link 1000A

### Neutral Link Terminal Shrouds for ERSCD Range

- CE Certified
- Neutral link terminal shrouds
- Material: Polyamide 6
- Flammability: UL94-VO
- IP Rating: Neutral link plus shroud IP2X



PART NO	DESCRIPTION
ERSNLTS250A	Shroud for 125-250A Neutral Link Terminal
ERSNLTS630A	Shroud for 400-630A Neutral Link Terminal
ERSNLTS800A	Shroud for 800-1000A Neutral Link Terminal



## Industrial

### Replacement Blue & White Handle & Shaft for ERSCD Range

- IP65 Handle padlockable in the OFF position for up to three padlocks
- Handle with defeat mechanism (For authorised personnel only)
- NB: All Safe Switches are supplied with blue / white handles and shafts as standard

PART NO	DESCRIPTION
ERSPHBW020	For ERSF160-200A
ERSPHBW040	For ERSF315-400A
ERSPHBW050	For ERSF630-800A
ERSPHBW060	For ERSC160-250A
ERSPHBW070	For ERSC315-400A
ERSPHBW080	For ERSC630-800A
ERSPHBW100	For ERSF125A
ERSPHBW110	For ERSC1000A



### Red & Yellow Handle & Shaft for ERSCD Range

- IP65 Handle padlockable in the OFF position for up to three padlocks
- Handle with defeat mechanism (For authorised personnel only)

PART NO	DESCRIPTION
ERSPHRY020	For ERSF160-200A
ERSPHRY040	For ERSF315-400A
ERSPHRY050	For ERSF630-800A
ERSPHRY100	For ERSF125A



### Extended Shaft for ERSCD Range

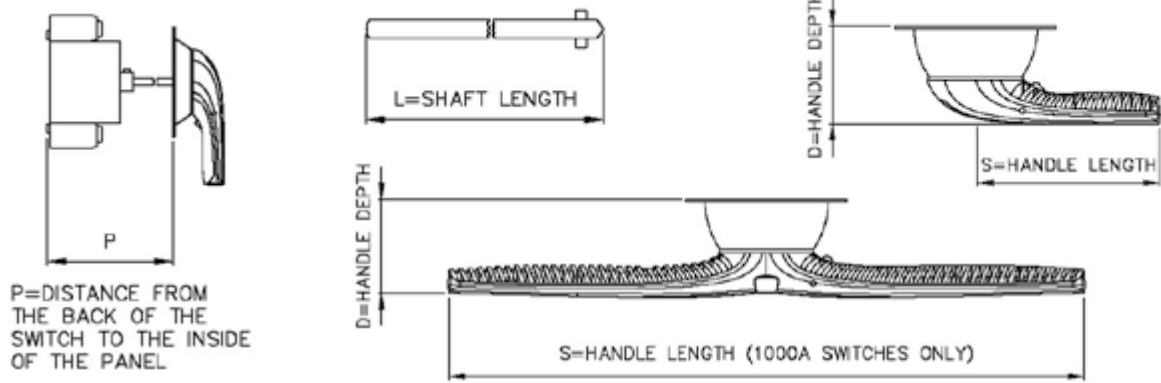
- Specially designed for use with the Safe Switch range of door interlocked switch-disconnector, BS88 switch fuse and changeover switches
- These extended shafts assist in the installation of the switches into deep enclosures and panel boards

PART NO	DESCRIPTION
ERSES010	For ERSC160-250A 250mm
ERSES020	For ERSC160-250A & ERSF125A 387mm
ERSES030	For ERSC315-400A & ERSF160-200A 376mm
ERSES040	For ERSC315-400A & ERSF160-200A 536mm
ERSES050	For ERSC630-1000A & ERSF315-800A 345mm
ERSES060	For ERSC630-1000A & ERSF315-800A 535mm



Handle & Shaft Data for Enclosed and Door Interlocked Switch-Disconnecter, BS88 Switch Fuses & Changeover Switches							
Product Prefix	Blue & White Handle	Red & Yellow Handle	Shaft Section (mm)	L (mm)	P (mm)	S (mm)	D (mm)
<b>Switch-Disconnecter Standard Handle and Shafts</b>							
ERSD160/200/250	ERSPHBW010	ERSPHRY010	□ 7	177	87-197	94	45
ERSD315/400	ERSPHBW010	ERSPHRY020	□ 10	227	103-240	115	
ERSD630/800	ERSPH030	ERSPHRY030	□ 14	195	134-240	143	60
ERSD1000	ERSPHBW090	ERSPHRY090		186	145-242	396	
<b>BS88 Switch Fuse Standard Handle and Shafts</b>							
ERSF125 / ERSFD125	ERSPHBW100	ERSPHRY100	□ 7	250	165-282	94	
ERSF160/200 / ERSFD160/200	ERSPHBW020	ERSPHRY020	□ 10	227	180-292	115	45
ERSF315/400 / ERSFD315/400	ERSPHBW040	ERSPHRY040	□ 14	239	216-286	176	
ERSF630/800 / ERSFD630/800	ERSPHBW050	ERSPHBW050		186	235-286		60
<b>Changeover Switch Standard Handle and Shafts</b>							
ERSC160/200/250 / ERSCD160/200/250	ERSPHBW060	Not Available	□ 7	177	163-250	94	60
ERSC315/400 / ERSCD315/400	ERSPHBW070		□ 10	227	166-293	143	
ERSC630/800 / ERSCD630/800	ERSPHBW080		□ 14	195	195-272	176	69
ERSC1000 / ERSCD1000	ERSPHBW110		186	223-298	396		

Extended Shaft Data for Enclosed and Door Interlocked Switch-Disconnecter BS88 Switch Fuses & Changeover Switches							
Product Prefix	Extended Shaft Type 1	Shaft Section (mm)	L (mm)	P (mm)	Extended Shaft Type 2	L (mm)	P (mm)
<b>Switch-Disconnecter Extended Shafts</b>							
ERSD160/200/250	ERSES010	□ 7	250	87-270	ERSES020	387	87-407
ERSD315/400	ERSES030	□ 10	375	103-404	ERSES040	536	103-565
ERSD630/800	ERSES050	□ 14	345	134-390	ERSES060	535	134-580
ERSD1000				145-401			145-591
<b>BS88 Switch Fuse Extended Shafts</b>							
ERSFD125	ERSES020	□ 7	387	165-419	Not Available		
ERSFD160/200	ERSES030	□ 10	375	180-440	ERSES040	536	180-601
ERSFD315/400	ERSES050	□ 14	345	216-392	ERSES060	535	216-582
ERSFD630/800				235-445			235-635
<b>Changeover Switch Extended Shafts</b>							
ERSCD160/200/250	ERSES010	□ 7	250	163-323	ERSES020	387	163-460
ERSCD315/400	ERSES030	□ 10	376	166-442	ERSES040	536	166-602
ERSCD630/800	ERSES050	□ 14	345	195-422	ERSES060	535	195-612
ERSCD1000				223-457			223-647







## Stainless Steel Enclosed Safety Switches / Isolators 16-1600A & 16-160A

- IP65 and IP66 Enclosed
- Acid proof to AISI 304 / AISI 316
- Where hygiene or protection against corrosion is required
- Excellent in hard weather conditions
- Good UV resistance
- Padlockable

PART NO		POLES	AC21, 400-690V	AC22, 400-690V	AC23, 400-415V
BAR HANDLE, FLAT TOP	BAR HANDLE, SLOPING TOP				
KER316R	KER316RS	3	25A	16A	16A, 7.5kW
KER325R	KER325RS	3	40A	25A	25A, 11kW
KER340R	KER340RS	3	63A	40A	40A, 22kW
KER363R	KER363RS	3	80A	63A	40A, 22kW
KER380R	KER380RS	3	100A	80A	63A, 30kW
KER3125R	KER3125RS	3	160A	125A	100A, 55kW
KER416R	KER416RS	4	25A	16A	16A, 7.5kW
KER425R	KER425RS	4	40A	25A	25A, 11kW
KER440R	KER440RS	4	63A	40A	40A, 22kW
KER463R	KER463RS	4	80A	63A	40A, 22kW
KER480R	KER480RS	4	100A	80A	63A, 30kW
KER4125R	KER4125RS	4	160A	125A	100A, 55kW



## IP69K STAINLESS STEEL SAFETY ISOLATORS AVAILABLE



### Working Environments

- Docksides
- Marine
- Sea farming
- Aggregates
- Quarrying
- Cement
- Food processing & packaging
- Dairy and beverage
- Water and waste water
- Chemical & pharmaceuticals



### Working Benefits

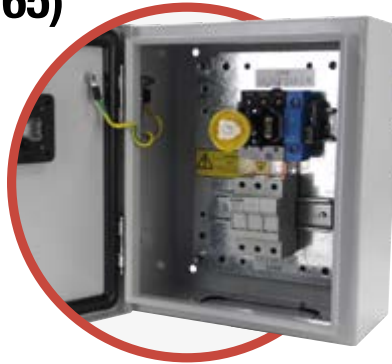
- Post-shift hose down
- Steam cleaning (IP69K)
- Pressure washing
- Impact protection
- Outdoor UV protected
- Ozone resistant
- Salt water resistant
- Chemical & detergent resistance



## Industrial

### Metal Enclosed Door Interlocked Fused Switches 32-100A (IP65)

- 3 Pole with early make / late break neutral switch
- Switch handle padlockable in the 'Off' position for up to 3 padlocks
- IP20 protection on incoming terminals
- Supplied with fully rated gL fuses (which can be down rated)
- Top and bottom gland plates
- All switch ratings AC-22
- TUV approved fuse holder to EN60269-1 & HD60269-2
- Switch disconnecter - EN 60947-3



PART NO	DESCRIPTION	DIMENSIONS (H x W x D)	DEPTH (INC SWITCH)	TERMINAL CAPACITY (RIGID COPPER CABLED mm <sup>2</sup> )	FUSE HOLDER
ERSMFS323PN	32A (AC-22) 3P+SW Neutral Switch Fuse inc. 3 x 32A gL Fuses	300 x 250 x 150mm	194mm	10mm <sup>2</sup>	10 x 38
ERSMFS803PN	80A (AC-22) 3P+SW Neutral Switch Fuse inc. 3 x 80A & 3 x 63A gL Fuses	500 x 300 x 200mm	244mm	35mm <sup>2</sup>	22 x 58
ERSMFS1003PN	100A (AC-22) 3P+SW Neutral Switch Fuse inc. 3 x 100A gL Fuses	500 x 300 x 200mm	244mm	35mm <sup>2</sup>	22 x 58

### Metal Enclosed Door Interlocked BS88 Switch Fuses 125A-630A (IP65)

3 Pole + Neutral Link Enclosed BS88 Switch Fuses

- RAL 7035 Enclosure
- Pad lockable in 'Off' position (3 padlocks)
- Door interlock with defeat mechanism (for authorised personnel only)
- Switch neutral contact early make / late break where fitted
- IP20 terminal protection included
- Fully rated neutral link (where fitted)
- Removable top & bottom gland plates
- Door earth lead fitted as standard
- Conforms to EN 60947-3
- Supplied with fully rated gL/gG fuses (fuses can be down rated)
- 125A - Tunnel Terminals / 160 - 630A - Lug Terminals



PART NO	AC21 AMP RATING	AC23 AMP RATING	3 PHASE MOTOR RATING	DIMENSIONS (H x W x D)	DEPTH (INC SWITCH)	LUG BOLT SIZE	BS88 FUSE SIZE	TERMINAL CAPACITY (RIGID COPPER CABLED mm <sup>2</sup> )
ERSMSF1253PN	125	125	65kW	500 x 400 x 200mm	245mm	- *	BS A2/A3	95mm <sup>2</sup>
ERSMSF1603PN	160	160	90kW	600 x 400 x 200mm	245mm	M8	BS A4	120mm <sup>2</sup>
ERSMSF2003PN	200	200	110kW	600 x 400 x 200mm	245mm	M8	BS B1/B2	120mm <sup>2</sup>
ERSMSF3153PN	315	315	160kW	800 x 600 x 300mm	360mm	M10	BS B1/B2/B3	240mm <sup>2</sup>
ERSMSF4003PN	400	400	220kW	800 x 600 x 300mm	360mm	M10	BS B1/B2/B3/B4	240mm <sup>2</sup>
ERSMSF6303PN	630	630	355kW	1000 x 800 x 300mm	360mm	M12	BS C1/C2	2 x 185mm <sup>2</sup>

**GRP & STAINLESS STEEL AVAILABLE**

\*Note: Tunnel Terminals

## Metal Enclosed Door Interlocked Switch-Disconnectors 160-1250A (IP65)

3 Pole + Sw. Neutral Enclosed Switch Disconnectors

- RAL 7035 Enclosure
- Padlockable in 'Off' position (3 padlocks)
- Door interlock with defeat mechanism (for authorised personnel only)
- Switch neutral contact - early make / late break
- Removable top & bottom gland plates
- Door earth lead fitted as standard
- Conforms to EN 60947-3
- IP20 input & output terminal shrouds (except 160A)
- 160A - Tunnel Terminals / 200 - 1250A - Lug Terminals



PART NO	AC21 AMP RATING	AC23 AMP RATING	3 PHASE MOTOR RATING	DIMENSIONS (H x W x D)	DEPTH (INC SWITCH)	LUG BOLT SIZE	TERMINAL CAPACITY (RIGID COPPER CABLED mm <sup>2</sup> )
ERSMLB1603PN	160	160	88.6kW	500 x 400 x 200mm	245mm	- *	95mm <sup>2</sup>
ERSMLB2003PN	200	160	88.6kW	500 x 400 x 200mm	245mm	M10	120mm <sup>2</sup>
ERSMLB2503PN	250	160	88.6kW	500 x 400 x 200mm	245mm	M10	120mm <sup>2</sup>
ERSMLB3153PN	315	315	174.5kW	800 x 600 x 200mm	245mm	M10	185mm <sup>2</sup>
ERSMLB4003PN	400	400	221.7kW	800 x 600 x 200mm	245mm	M10	240mm <sup>2</sup>
ERSMLB6303PN	630	630	349.1kW	1000 x 800 x 300mm	360mm	M10	2 x 185mm <sup>2</sup>
ERSMLB8003PN	800	630	349.1kW	1000 x 800 x 300mm	360mm	M10	2 x 240mm <sup>2</sup>
ERSMLB10003PN	1000	800	554kW	1200 x 800 x 300mm	360mm	M14	2 x 300mm <sup>2</sup>
ERSMLB12503PN	1250	1000	554kW	1200 x 800 x 300mm	360mm	M14	2 x 300mm <sup>2</sup>



\*Note: Tunnel Terminals

## Metal Enclosed Door Interlocked Changeover Switches 160-1000A (IP65)

3 Pole + Sw. Neutral Enclosed Changeover Switches

- RAL 7035 Enclosure
- Pad lockable in 'Off' position (3 padlocks)
- Door interlock with defeat mechanism (for authorised personnel only)
- IP20 input & output terminal shrouds
- Switch neutral contact - early make / late break
- Removable top & bottom gland plates
- Door earth lead fitted as standard
- Conforms to EN 60947-3
- Break before make 3 position switch - centre off
- All switches with lug terminals



PART NO	AC21 AMP RATING	AC23 AMP RATING	3 PHASE MOTOR RATING	DIMENSIONS (H x W x D)	DEPTH (INC SWITCH)	LUG BOLT SIZE	TERMINAL CAPACITY (RIGID COPPER CABLED mm <sup>2</sup> )
ERSMCO1603PN	160	160	88.6kW	600 x 400 x 200mm	260mm	M8	95mm <sup>2</sup>
ERSMCO2003PN	200	160	88.6kW	600 x 400 x 200mm	260mm	M10	120mm <sup>2</sup>
ERSMCO2503PN	250	160	88.6kW	600 x 400 x 200mm	260mm	M10	120mm <sup>2</sup>
ERSMCO3153PN	315	200	100kW	800 x 600 x 300mm	360mm	M10	240mm <sup>2</sup>
ERSMCO4003PN	400	250	125kW	800 x 600 x 300mm	360mm	M10	240mm <sup>2</sup>
ERSMCO6303PN	630	500	250kW	1000 x 800 x 300mm	360mm	M12	2 x 240mm <sup>2</sup>
ERSMCO8003PN	800	630	315kW	1000 x 800 x 300mm	360mm	M12	2 x 240mm <sup>2</sup>
ERSMCO10003PN	1000	1000	501kW	1200 x 800 x 300mm	360mm	M14	2 x 300mm <sup>2</sup>







## Sheet Steel Enclosed MCCB

- Fully load rated breakers
- BSEN 60947-2 conformity
- Door interlocked padlockable handles
- IP2X terminal shrouds
- 63A-250A Fixed magnetic, adjustable thermal 63-100%
- 400A-1250A Electronic LSI, adjustable 40-100%
- Top and bottom gland plates
- Ingress protection IP55



PART NO (3P+N)	PART NO (4P+N)	NOMINAL RATING I <sub>e</sub> (415V)	ICU SHORT CIRCUIT BREAKING	DIMENSIONS (H x W x D)	TERMINAL WIDTH	STUD SIZE
STMCCB6/3+N	STMCCB6/4	63A	16kA	400 x 300 x 200mm	17mm	M8
STMCCB10/3+N	STMCCB10/4	100A	16kA	400 x 300 x 200mm	17mm	M8
STMCCB12/3+N	STMCCB12/4	125A	16kA	500 x 400 x 200mm	17mm	M8
STMCCB16/3+N	STMCCB16/4	160A	16kA	500 x 400 x 200mm	17mm	M8
STMCCB20/3+N	STMCCB20/4	200A	25kA	600 x 400 x 200mm	23mm	M10
STMCCB25/3+N	STMCCB25/4	250A	25kA	600 x 400 x 200mm	23mm	M10
STMCCB40/3+N	STMCCB40/4	400A	50kA	800 x 600 x 250mm	28mm	M12
STMCCB63/3+N	STMCCB63/4	630A	50kA	800 x 600 x 250mm	28mm	M12
STMCCB80/3+N	STMCCB80/4	800A	50kA	1000 x 800 x 300mm	40mm	M12
STMCCB100/3+N	STMCCB100/4	1000A	50kA	1200 x 800 x 300mm	45mm	M12
STMCCB125/3+N	STMCCB125/4	1250A	50kA	1200 x 800 x 300mm	45mm	M12

**ENCLOSED ACBS ARE ALSO AVAILABLE UP TO 6300A**

## Sheet Steel Enclosed RCBO

- All the features of the above enclosed MCCBs
- Variable tripping current 0.025 - 25A
- Adjustable time delay 0.02 - 5 sec
- Auto or manual trip reset and test button

PART NO (4P)	NOMINAL RATING I <sub>e</sub> (415V)	ICU SHORT CIRCUIT BREAKING	DIMENSIONS (H x W x D)	TERMINAL WIDTH	STUD SIZE
STMCCB6/4ELR	63A	16kA	500 x 400 x 200mm	17mm	M8
STMCCB10/4ELR	100A	16kA	500 x 400 x 200mm	17mm	M8
STMCCB12/4ELR	125A	16kA	600 x 400 x 200mm	17mm	M8
STMCCB16/4ELR	160A	16kA	600 x 400 x 200mm	17mm	M8
STMCCB20/4ELR	200A	25kA	700 x 500 x 250mm	23mm	M10
STMCCB25/4ELR	250A	25kA	700 x 500 x 250mm	23mm	M10
STMCCB40/4ELR	400A	50kA	1000 x 600 x 300mm	28mm	M12
STMCCB63/4ELR	630A	50kA	1000 x 600 x 300mm	28mm	M12



# SWITCHGEAR • SHEET STEEL ENCLOSED CONTACTORS



## Sheet Steel Enclosed 4 Pole Contactors

- 110V - 240V coil with fuse protection
- Normally open contactors
- IEC 60947-4-1 rated
- IP2X terminal shrouds
- IP55 rated



## with Stop/Start Circuit

- Stop/Start units have a red twist to reset emergency stop and a green start pushbutton wired into a standard stop/start circuit
- Additional terminals are provided for wiring in an E-stop loop
- Auto or manual trip reset and test button

PART NO (4P)	PART NO (WITH STOP/START)	AC1 CURRENT 380-440V	AC3 CURRENT 380-440V	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE	
STCON4/4	STCON4/4STP	45A	20A / 11kW	300 x 180 x 110mm	10 CAGE	
STCON7/4	STCON7/4STP	70A	40A / 22kW	400 x 300 x 150mm	35 CAGE	
STCON10/4	STCON10/4STP	100A	53A / 30kW	400 x 300 x 150mm	35 CAGE	
STCON12/4	STCON12/4STP	125A	80A / 45kW	500 x 400 x 200mm	50 CAGE	
STCON16/4	STCON16/4STP	160A	116A / 55kW	600 x 400 x 200mm	13mm	M6
STCON20/4	STCON20/4STP	200A	140A / 75kW	600 x 400 x 250mm	13mm	M6
STCON27/4	STCON27/4STP	275A	190A / 90kW	700 x 500 x 250mm	16mm	M8
STCON40/4	STCON40/4STP	400A	265A / 132kW	800 x 600 x 300mm	20mm	M10

## Cut-out Contactors for Solar PV application

- 110V - 240V coil with fuse protection
- Normally Open contactors
- IEC 60947-4-1 rated
- IP2X terminal shrouds
- IP55 rated
- Spring return key operated start switch

When the cut-out loses power from the mains it will disconnect the solar supply to prevent paralleling with an unsynchronised backup/generator.



PART NO (4P)	AC1 CURRENT 380-440V	AC3 CURRENT 380-440V	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE	
STCON4/4SCO	45A	20A / 11kW	300 x 180 x 110mm	10 CAGE	
STCON7/4SCO	70A	40A / 22kW	400 x 300 x 150mm	35 CAGE	
STCON10/4SCO	100A	53A / 30kW	400 x 300 x 150mm	35 CAGE	
STCON12/4SCO	125A	80A / 45kW	500 x 400 x 200mm	50 CAGE	
STCON16/4SCO	160A	116A / 55kW	600 x 400 x 200mm	13mm	M6
STCON20/4SCO	200A	140A / 75kW	600 x 400 x 250mm	13mm	M6
STCON27/4SCO	275A	190A / 90kW	700 x 500 x 250mm	16mm	M8
STCON40/4SCO	400A	265A / 132kW	800 x 600 x 300mm	20mm	M10



## Sheet Steel Busbar Chambers

- 4 fully rated poles ranging from 125A up to 800A
- Twin copper bar design to allow for convenient clamping
- BSEN 60439-1 conformity
- All four side panels removable for easy glanding
- IP41 rated



## Joining Kits

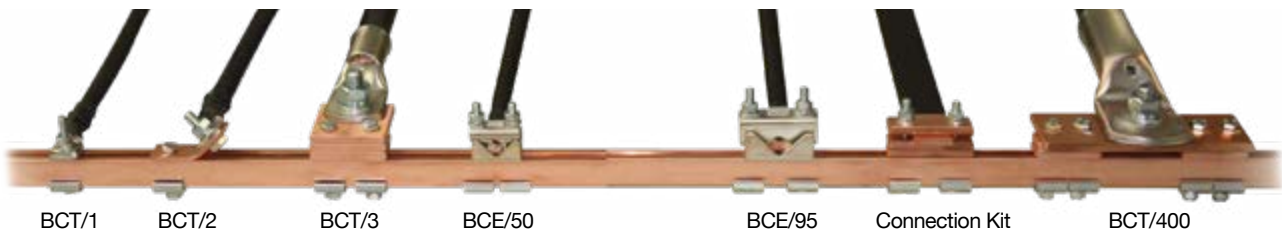
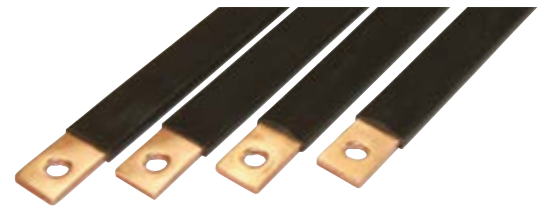
MAX LOAD	PART NO	CONSISTS OF
630A	JJK6	4 x Clamps & Fixings
800A	JJK8	4 x Clamps & Fixings

AC1 CURRENT 380-440V	PART NO BY WIDTH (mm)						HEIGHT	DEPTH
	600	900	1200	1500	1800*	2100*		
125A	BB12/6	BB12/9	-	-	-	-	380mm	210mm
200A	BB20/6	BB20/9	BB20/12	BB20/15	BB20/18	BB20/21	380mm	210mm
400A	BB40/6	BB40/9	BB40/12	BB40/15	BB40/18	BB40/21	380mm	210mm
630A	BB63/6	BB63/9	BB63/12	BB63/15	BB63/18	BB63/21	380mm	210mm
800A	BB80/6	BB80/9	BB80/12	BB80/15	BB80/18	BB80/21	380mm	210mm
-	CAB6	CAB9	EMPTY CABINET FOR SPREADER BOXES				380mm	210mm

\* 1800 wide and above busbars will be shipped in two or more sections with relevant joining kits. These kits are also available for purchase separately for retro fitting.

## Sheet Steel Busbar Accessories

- Important: These Busbar accessories are designed specifically for our range of Busbar chambers. The connection kits are cut to lengths specifically to connect to Eris Switch fuses and Load Break Isolators



## Connection Clamps

MAX LOAD	PART NO	MAX CABLE (mm <sup>2</sup> )	CONNECTION TYPE	
160A	BCT/1	1 x 50	Lug	M6
200A	BCT/2	1 x 70 (or 2 x 50)	Lug	M8
800A	BCT/3	1 x 240	Lug	M12
800A	BCT/400	1 x 400	Lug	M12
160A	BCE/50	1 x 50	Direct Cable	
250A	BCE/95	1 x 95	Direct Cable	

## Connection Kits

MAX LOAD	PART NO (ISOLATOR KIT)	PART NO (SWITCH FUSE KIT)
160A	BCCKD/16/E	BCCKSF/16/E
200A	BCCKD/20/E	BCCKSF/20/E
315A	BCCKD/30/E	BCCKSF/30/E
400A	BCCKD/40/E	BCCKSF/40/E
630A	BCCKD/63/E	BCCKSF/63/E
800A	BCCKD/80/E	BCCKSF/80/E

Kit = 4 x Flexibar Connectors & Fixing Clamps



# SWITCHGEAR • EARTH/NEUTRAL BARS & JUNCTION BOXES



## Sheet Steel Enclosed Junction Boxes

- Insulator rating 1000V
- IP2X terminal protection
- Padlockable hinged door enclosure
- IP55 rated
- Units for cable sizes 35-70mm<sup>2</sup> are fitted with individual screw down terminals for ferruled cable
- Units for cable sizes 120-300mm<sup>2</sup> are fitted with individually shrouded power terminals for lugged cable
- Units for cable sizes (2x300mm<sup>2</sup>)-(2x400mm<sup>2</sup>) are fitted with individual copper bars with all over shrouding for lugged cable

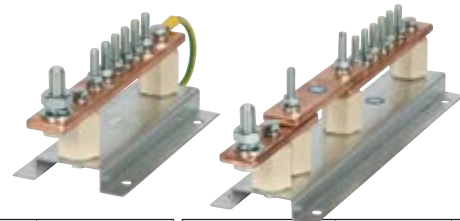


PART NO. (3P)	PART NO. (4P)	PART NO. (5P)	MAX CABLE SIZE	AC1 CURRENT 380-440V	DIMENSIONS (H x W x D)
STJB35/3	STJB35/4	STJB35/5	35mm <sup>2</sup>	125A	400 x 300 x 150mm
STJB70/3	STJB70/4	STJB70/5	70mm <sup>2</sup>	192A	500 x 400 x 200mm
STJB120/3	STJB120/4	STJB120/5	120mm <sup>2</sup>	250A	600 x 400 x 200mm
STJB185/3	STJB185/4	STJB185/5	185mm <sup>2</sup>	350A	800 x 600 x 250mm
STJB300/3	STJB300/4	STJB300/5	300mm <sup>2</sup>	500A	800 x 600 x 250mm
STJB500/3	STJB500/4	STJB500/5	2 x 300mm <sup>2</sup>	500A	1000 x 600 x 250mm
STJB630/3	STJB630/4	STJB630/5	2 x 400mm <sup>2</sup>	630A	1000 x 600 x 300mm
STJB800/3	STJB800/4	STJB800/5	2 x 400mm <sup>2</sup>	800A	1000 x 800 x 300mm
STJB1000/3	STJB1000/4	STJB1000/5	2 x 400mm <sup>2</sup>	1000A	1200 x 800 x 300mm

**CUSTOM JUNCTION BOXES FOR MULTICABLES OR SINGLE DIRECTION ENTRY ARE ALSO AVAILABLE**

## Power Rated Earth & Neutral Bars

- The earth bars have continuity bonding from the copper to the din rail
- The neutral bars are fully insulated from the din rail
- Splittable bars have a removable copper link to separate the incoming supply from the outgoing ways



PART NO. EARTH BAR (SOLID)	PART NO. NEUTRAL BAR (SOLID)	OVERALL LENGTH (mm)	PART NO. EARTH BAR (SPLITTABLE)	PART NO. NEUTRAL BAR (SPLITTABLE)	OVERALL LENGTH (mm)	AC1 CURRENT 380-440V	OUTGOING FIXINGS	INCOMING FIXING
EB6/100	NB6/100	180	EBS6/100	NBS6/100	290	100A	6 x M6	1 x M10
EB8/100	NB8/100	210	EBS8/100	NBS8/100	320	100A	8 x M6	1 x M10
EB12/100	NB12/100	270	EBS12/100	NBS12/100	380	100A	12 x M6	1 x M10
EB6/160	NB6/160	210	EBS6/160	NBS6/160	320	160A	6 x M8	1 x M10
EB8/160	NB8/160	250	EBS8/160	NBS8/160	360	160A	8 x M8	1 x M10
EB12/160	NB12/160	330	EBS12/160	NBS12/160	440	160A	12 x M8	1 x M10
EB6/250	NB6/250	240	EBS6/250	NBS6/250	350	250A	6 x M10	1 x M10
EB8/250	NB8/250	290	EBS8/250	NBS8/250	400	250A	8 x M10	1 x M10
EB12/250	NB12/250	390	EBS12/250	NBS12/250	500	250A	12 x M10	1 x M10
EB8/400	NB8/400	430	EBS8/400	NBS8/400	580	400A	8 x M12	1 x M10
EB12/400	NB12/400	570	EBS12/400	NBS12/400	720	400A	12 x M12	1 x M10
EB8/630	NB8/630	550	EBS8/630	NBS8/630	700	630A	8 x M12	1 x M12
EB12/630	NB12/630	750	EBS12/630	NBS12/630	900	630A	12 x M12	1 x M12

# SWITCHGEAR • AUTOMATIC TRANSFER SWITCHES



- Designed in compliance with BSEN 60947-6-1
- Electrical and mechanical interlocks between supplies
- Volt free remote terminals to show supply status
- Ingress protection IP55



## Mains To Mains ATS Panels (M2M)

These models are suited to applications where both supplies can be assumed to be normally available. The standard models feature 2 indicator lamps showing primary and secondary “healthy” status. The advanced models feature the following additional features:

- Adjustable switching delays between the opening of one contactor and the closing of the other
- 2 additional indicator lamps and volt free terminals showing which supply is currently in use
- Specifically designed to be used for designated firefighting lifts as detailed in BS9999

## Mains To Backup ATS Panels (M2B)

These models are designed to be used in conjunction with a backup generator, but will also operate where both supplies are coming from the mains.

## Mains To Generator ATS Panels (M2G)

These models are designed to be used in conjunction with a backup generator.



## 2 Pole

PART NO. (M2M - STANDARD)	PART NO. (M2M - ADVANCED)	PART NO. (M2B)	PART NO. (M2G)	AC1 CURRENT 380-440V	AC3 CURRENT 380-440V	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE
ATS4/2M2MCS	ATS4/2M2MCA	ATS4/2M2BC	-	40A	40A / 11KW	500 x 400 x 200mm	25 CAGE
-	-	-	ATS4/2M2GC330	40A	40A / 11KW	600 x 400 x 200mm	25 CAGE
ATS6/2M2MCS	ATS6/2M2MCA	ATS6/2M2BC	-	63A	40A / 11KW	500 x 400 x 200mm	25 CAGE
-	-	-	ATS6/2M2GC330	63A	40A / 11KW	600 x 400 x 200mm	25 CAGE
ATS8/2M2MCS	ATS8/2M2MCA	ATS8/2M2BC	ATS8/2M2GC330	80A	40A / 11KW	600 x 400 x 200mm	35 CAGE
ATS10/2M2MCS	ATS10/2M2MCA	ATS10/2M2BC	ATS10/2M2GC330	100A	80A / 22KW	600 x 400 x 200mm	35 CAGE

## 4 Pole

PART NO. (M2M - STANDARD)	PART NO. (M2M - ADVANCED)	PART NO. (M2B)	PART NO. (M2G)	AC1 CURRENT 380-440V	AC3 CURRENT 380-440V	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE
ATS4/4M2MCS	ATS4/4M2MCA	ATS4/4M2BC	ATS4/4M2GC331	40A	20A / 11KW	600 x 400 x 200mm	25 CAGE
ATS6/4M2MCS	ATS6/4M2MCA	ATS6/4M2BC	ATS6/4M2GC331	63A	40A / 22KW	600 x 400 x 200mm	25 CAGE
ATS8/4M2MCS	ATS8/4M2MCA	ATS8/4M2BC	ATS8/4M2GC331	80A	53A / 30KW	700 x 500 x 200mm	35 CAGE
ATS10/4M2MCS	ATS10/4M2MCA	ATS10/4M2BC	ATS10/4M2GC331	100A	53A / 30KW	700 x 500 x 200mm	35 CAGE
ATS12/4M2MCS	ATS12/4M2MCA	ATS12/4M2BC	ATS12/4M2GC331	125A	80A / 45KW	700 x 500 x 200mm	70 CAGE
ATS16/4M2MCS	ATS16/4M2MCA	ATS16/4M2BC	ATS16/4M2GC331	160A	116A / 55KW	800 x 600 x 250mm	70 CAGE
ATS20/4M2MSS	ATS20/4M2MSA	ATS20/4M2BS	ATS20/4M2GS331	200A	200A / 80KW	800 x 600 x 250mm	24mm M8
ATS25/4M2MSS	ATS25/4M2MSA	ATS25/4M2BS	ATS25/4M2GS331	250A	250A / 100KW	800 x 600 x 300mm	25mm M10
ATS40/4M2MSS	ATS40/4M2MSA	ATS40/4M2BS	ATS40/4M2GS331	400A	400A / 150KW	800 x 600 x 300mm	30mm M10
-	-	-	ATS63/4M2GS331	630A	630A / 250KW	1000 x 600 x 300mm	35mm M10
-	-	-	ATS80/4M2GS331	800A	800A / 300KW	1000 x 800 x 300mm	40mm M12
-	-	-	ATS100/4M2GS331	1000A	1000A / 375KW	1200 x 800 x 300mm	40mm M12
-	-	-	ATS125/4M2GS331	1250A	1250A / 450KW	1200 x 800 x 300mm	40mm M12

# SWITCHGEAR • SHEET STEEL ENCLOSED ATS BYPASS SWITCHES



## Sheet Steel Enclosed ATS Bypass Switches

- For life safety ATS installations to BS8519:2010
- Break-Before-Make operation
- Door interlocked padlockable handles
- Fully load rated AC23A 415-690V
- Test position
- Gen start signal isolation auxiliary
- IP55 rated



Switchgear Systems have developed a range of switches that help provide bypass of Life Safety ATS panels, in a minimum number of operations, for both single line and dual line switching. Designed to be fitted under our ATS switches these bypass switches combine with the ATS to provide an integrated system. This solution offers isolation in bypass mode with complete separation allowing safe working during installation, set-up, or maintenance on the ATS panel without loss of supply.

## Single Line Bypass

This provides bypass of one incoming supply to the ATS whilst isolating the other. It maintains continuity of supply to load while undergoing safe installation, set-up or maintenance on the ATS panel.

PART NO. (SINGLE LINE) (2P)	AC1 CURRENT 380-440V	HANDLES	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE
STBYATS6/2SL	63A	2	600 x 400 x 200mm	35 CAGE
STBYATS10/2SL	100A	2	600 x 400 x 200mm	35 CAGE
STBYATS12/2SL	125A	2	600 x 400 x 200mm	70 CAGE

PART NO. (SINGLE LINE) (4P)	AC1 CURRENT 380-440V	HANDLES	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE	
STBYATS6/4SL	63A	2	600 x 400 x 200mm	35 CAGE	
STBYATS10/4SL	100A	2	700 x 500 x 200mm	35 CAGE	
STBYATS12/4SL	125A	2	700 x 500 x 200mm	70 CAGE	
STBYATS25/4SL	250A	1	800 x 600 x 400mm	25mm	M10
STBYATS40/4SL	400A	1	800 x 600 x 400mm	30mm	M10
STBYATS63/4SL	630A	1	1000 x 600 x 400mm	30mm	M10

## Dual Line Bypass

For critical installations this provides bypass of both supplies around the ATS and uses a manual changeover, on either load, to allow selection of supply in the case of a primary supply failure. It maintains continuity of either supply while undergoing safe installation, set-up or maintenance on the ATS panel.

PART NO. (DUAL LINE) (2P)	AC1 CURRENT 380-440V	HANDLES	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE
STBYATS6/2DL	63A	4	800 x 600 x 300mm	35 CAGE
STBYATS10/2DL	100A	4	800 x 600 x 300mm	35 CAGE
STBYATS12/2DL	125A	4	800 x 600 x 300mm	70 CAGE

PART NO. (DUAL LINE) (4P)	AC1 CURRENT 380-440V	HANDLES	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE	
STBYATS6/4DL	63A	4	800 x 600 x 300mm	35 CAGE	
STBYATS10/4DL	100A	4	800 x 600 x 300mm	35 CAGE	
STBYATS12/4DL	125A	4	800 x 600 x 300mm	70 CAGE	
STBYATS25/4DL*	250A	2	1400 x 800 x 400mm	25mm	M10
STBYATS40/4DL*	400A	2	1400 x 800 x 400mm	30mm	M10
STBYATS63/4DL*	630A	2	1400 x 800 x 400mm	30mm	M10



When ordered alongside our ATS panels these will be mechanically and electronically fitted to the bottom of the ATS (example diagram - left). Alternative layouts are available upon request (example diagram - right).



\*250-630A Dual Line ATS Bypass units will be in floor standing enclosures





## Sheet Steel Enclosed Changeover Switches

- Fully load rated AC22A 415V - 690V
- Break-Before-Make with centre OFF
- IP2X terminal shrouds
- Removable gland plate top (up to 700 H) and bottom
- BSEN 60947-3 conformity
- Complete changeover switching system in one unit (no bridging bars required)
- IP55 rated

PART NO. (4P)	NOMINAL RATING I <sub>e</sub> (415V)	DIMENSIONS (H x W x D)	TERMINAL WIDTH + STUD SIZE	
STCHO6/4	63A	500 x 400 x 200mm	15mm	M6
STCHO10/4	100A	500 x 400 x 200mm	15mm	M6
STCHO12/4	125A	500 x 400 x 200mm	15mm	M6
STCHO16/4	160A	500 x 400 x 200mm	20mm	M8
STCHO20/4	200A	600 x 400 x 250mm	20mm	M8
STCHO25/4	250A	700 x 500 x 250mm	25mm	M10
STCHO30/4	315A	700 x 500 x 250mm	30mm	M10
STCHO40/4	400A	800 x 600 x 250mm	30mm	M10
STCHO50/4	500A	800 x 600 x 250mm	35mm	M10
STCHO63/4	630A	1000 x 600 x 250mm	35mm	M10
STCHO80/4	800A	1000 x 600 x 300mm	40mm	M12
STCHO100/4	1000A	1200 x 800 x 300mm	40mm	M12
STCHO125/4	1250A	1200 x 800 x 300mm	40mm	M12

CHANGEOVER SWITCHES COMPLETE WITH 5 PIN 415V APPLIANCE INLET ON THE BOTTOM, WIRED TO THE SECONDARY INPUT TERMINALS				
STCHO6/4+INLET	63A	639 x 400 x 200mm	15mm	M6
STCHO12/4+INLET	125A	639 x 400 x 200mm	15mm	M6



## Sheet Steel Enclosed Generator Hook-Ups

Our generator hook-up units are designed for remote connection of a temporary generator

- Insulator rating 1000V
- IP2X terminal protection
- Padlockable hinged door
- Letter brush entry at bottom of enclosure with removable gland plate
- Bottom entry, rear/top exit
- IP65 rated
- Units for 250-400A are fitted with individually shrouded power terminals for lugged cable
- Units for 800-1250A are fitted with individual copper bars with all over shrouding for lugged cable



PART NO. (4P)	PART NO. (5P)	AC1 CURRENT 380-440V	DIMENSIONS (H x W x D)
STGH25/4	STGH25/5	250A	600 x 400 x 200mm
STGH40/4	STGH40/5	400A	800 x 600 x 250mm
STGH80/4	STGH80/5	800A	1000 x 600 x 250mm
STGH125/4	STGH125/5	1250A	1200 x 600 x 300mm

# SWITCHGEAR • ISOLATOR SWITCHES



**20-315 AMPS AND 3, 4, 6, 8, 9 & 12 POLES AVAILABLE FOR NEXT DAY DELIVERY**

- 3, 4 and 6 Pole stainless steel 20A-1250A
- IP66/67
- Available in red / grey mild steel
- IP66 and IK10 in GRP
- Combine a number of different switches/devices in one enclosure
- DC isolators single and two string 8-50A 2 Pole and 4 Pole



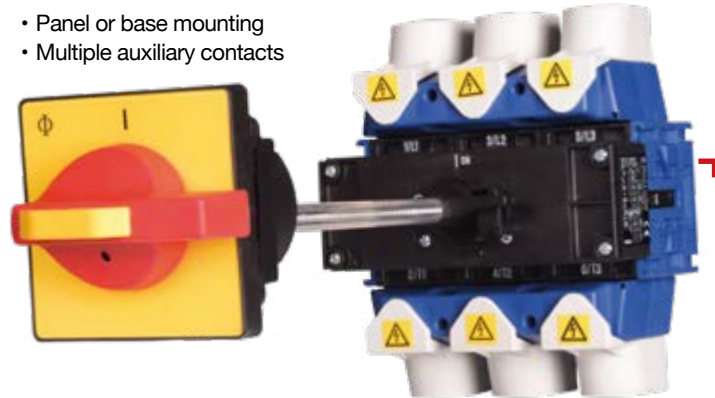
## Enclosed Products

- 20-1250A
- Polycarbonate, GRP, mild or stainless steel



## Switch-disconnectors

- Panel or base mounting
- Multiple auxiliary contacts



## Control & Load

- 10-2400A
- Choose a function and configuration



**CONTACT YOUR LOCAL BRANCH FOR ALL YOUR KRAUS & NAIMER REQUIREMENTS**



## Industrial

### Aluminium Enclosed Firefighter's Switches IP65

- CE Certified
- EN 60947-3
- Padlockable in the OFF position for added security (For 1 padlock)
- 4 x M25 threaded cable entries
- 1 x M16 threaded entry (Top)
- Epoxy powder coated die cast aluminium enclosure
- Lid removable in OFF position only



PART NO	DESCRIPTION	HEIGHT x WIDTH x DEPTH
ERSFF403N	40A Enclosed 3 Pole + Neutral Firefighter's Switch	157 x 126 x 69mm
ERSFF403SN	40A Enclosed 3P + Sw. Neutral Firefighter's Switch	157 x 126 x 69mm

SWITCH DATA DESCRIPTION		RANGE	UNITS	PRODUCT
Rated Operational Voltage Ue		Volts	V	690
Rated Insulation Voltage Ui		Volts	V	690
Rated Impulse Withstand Voltage Uimp		Volts	kV	6
Rated Thermal Current at 40°C		Amps	A	40
Rated Uninterrupted Current Iu		Amps	A	40
Pollution Degree		-	-	2
RATED OPERATIONAL CURRENT IE				
IEC & EN	AC-21A	690V	A	40
	AC-22A	400(415)V	A	40
	AC-22A	690V	A	32
	AC-23A	400(415)V	A	25
	AC-23A	690V	A	17
RATED OPERATIONAL POWER PE AC-23A (50HZ)				
IEC & EN	3 Phase	400(415)V	kW	11
		690V	kW	15
Short Circuit Capacity (IEC)				
Max Fuse Size (type gG)		Amps	A	32
Rated Fused Short Circuit Current		Amps	kA	25
TERMINAL SPECIFICATION				
Single / Multiple Strand Wire / Fine Strand			Min-mm <sup>2</sup>	2.5
			Max-mm <sup>2</sup>	6
Recommended Tightening Torque			Nm	1.2



## Industrial

### Switch Mode Power Supplies

- Universal AC input / full range
- Protections: short circuit / over load / over voltage / over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- All products have worldwide approvals of UL, CUL, TUV and CE
- Designed specifically for use in industrial control equipment, power distribution enclosures, factory automation, control panels, commercial automation and household electrical control systems
- LED indicator for power on
- 100% full load burn-in test
- Fix switching frequency at 100KHz



PART NO	WATTAGE	VOLTAGE	AMPS	VOLTAGE OPTIONS	DIMENSIONS (H X W X D)
ERSPS-45-24	45W	24V	1.8A	Single	78 x 93 x 67mm
ERSPS-75-24	75W	24V	3.1A	Single	32 x 125.2 x 102mm
ERSPS-120-24	120W	24V	5A	Single	40 x 125.2 x 113.5mm
ERSPS-240-24	240W	24V	10A	Single	63 x 125.2 x 113.5mm





## Industrial Contractor Fuse Kit

- Fuse kit containing 180 fuses in a handy segmented flip-lid box
- 30 fuses for standard 13A plugs containing: 3A, 5A and 13A
- 60 fast acting glass 5 x 20mm fuses containing: 500mA, 1A, 2A, 2.5A, 3.15A and 5A
- 90 slow blow glass 5 x 20mm fuses containing: 1A, 1.25A, 1.6A, 2A, 2.5A, 3.15A, 5A, 6.3A and 10A



PART NO	DESCRIPTION
ERSFUSEKIT	Contractor Fuse Kit with 180 Fuses



## Bussmann series



## Consumer Unit Fuse Links

- Domestic Applications to BS1361
- Voltage 240VAC
- Breaking Capacity KA 16.5



PART NO	AMPS
C55	5
C1515	15
C1520	20
C3030	30
C4545	45

## Offset Bolted Tags

- Industrial and Motor Applications to BS88
- Voltage - 550VAC
- Breaking Capacity KA 80

PART NO	AMPS
NITD2	2
NITD4	4
NITD6	6
NITD10	10
NITD16	16
NITD20	20
NITD25	25
NITD32	32



- Industrial and Motor Applications to BS88
- Voltage 550VAC
- Breaking Capacity KA 80

PART NO	AMPS
AAO6	6
AAO10	10
AAO16	16
AAO20	20
AAO25	25
AAO32	32



- Industrial and Motor Applications to BS88
- Voltage 415VAC
- Breaking Capacity KA 80

PART NO	AMPS
DEO125	125
DEO160	160
DEO200	200



- Industrial and Motor Applications to BS88
- Voltage 500VAC
- Breaking Capacity KA 80

PART NO	AMPS
CEO32	32
CEO40	40
CEO63	63
CEO80	80
CEO100	100



- Industrial and Motor Applications to BS88
- Voltage 550VAC
- Breaking Capacity KA 80

PART NO	AMPS
NSD2	2
NSD4	4
NSD6	6
NSD10	10
NSD16	16
NSD20	20
NSD25	25
NSD32	32



- Industrial and Motor Applications to BS88
- Voltage 500VAC
- Breaking Capacity KA 80

PART NO	AMPS
BAO35	35
BAO40	40
BAO63	63
OSD80	80
OSD100	100



## 6A Offset Bolted Tags

- Street Lighting Applications to BS88
- Voltage 240VAC
- Breaking Capacity 33kA



PART NO	AMPS
STD6	2

An integral component of a modern health and safety program and which is applicable to all industries. **A planned LOTO procedure is designed to ensure that if maintenance or service work is required on potentially dangerous equipment then it is correctly isolated and made safe to work on.** In addition it will prevent its accidental re-activation prior to the completion of the work and ensure that all affected personnel are made aware of the status of the equipment at all times.

Lockout consists of a range of equipment to physically prevent equipment being activated and can be used on valves, electrical switches, pneumatics and isolation points. This is combined with our range of tags and signs to identify that the equipment is not to be used and who is working on it.



## Lockout Kits

Our pre-selected kits are designed to cover the most common uses in industry. Each supplied in a handy carrying case providing a convenient choice for any lockout professional.



Industrial

## Domestic Lockout Kit

Includes:

- 1 x ERSLOK189 Lockout Shell Case / Pouch
- 1 x ERSLOK007-L Safety Lockout Padlocks - Red (each)
- 1 x ERSLOK161 Aluminium MCB Lockout Toggle
- 1 x ERSLOK205 Miniature Circuit Breaker Lockout Pin Out Standard
- 2 x ERSLOK242 Lockout Tag with Eyelet - Do Not Operate (Double Sided)
- 1 x ERSLOK044 Vinyl Coated Lockout Hasp - 25mm
- 1 x ERSTGPEN01 Finesline Permanent Marker Pen



PART NO	DESCRIPTION
ERSLOK1	Domestic Lockout Kit





## Industrial

### Contractor Lockout Kit

**Includes:**

- 1 x ERSLOK189 Lockout Shell Case / Pouch
- 1 x ERSLOK007-L Safety Lockout Padlocks - Red (each)
- 1 x ERSLOK161 Aluminium MCB Lockout Toggle
- 1 x ERSLOK205 Miniature Circuit Breaker Lockout Pin Out Standard
- 5 x ERSLOK242 Lockout Tag with Eyelet - Do Not Operate (Double Sided)
- 1 x ERSLOK044 Vinyl Coated Lockout Hasp - 25mm
- 1 x ERSTGPEN01 FINELINE Permanent Marker Pen
- 2 x ERSLOK043 Universal Circuit Breaker Lockout
- 1 x ERSLOK207 Miniature Circuit Breaker Lockout Tie Bar



PART NO	DESCRIPTION
ERSLOK2	Contractor Lockout Kit

### Contractor Pro Lockout Kit

**Includes:**

- 1 x ERSLOK189 Lockout Shell Case / Pouch
- 1 x ERSLOK068 Dielectric Safety Lockout Padlock (Non-Conductive)
- 1 x ERSLOK127 Non-Conductive Lockout Hasp - 6 Holes (5mm Thread)
- 1 x ERSLOK044 Vinyl Coated Lockout Hasp - 25mm
- 1 x ERSLOK205 Miniature Circuit Breaker Lockout Pin Out Standard
- 5 x ERSLOK242 Lockout Tag with Eyelet - Do Not Operate (Double Sided)
- 1 x ERSLOK206 Miniature Circuit Breaker Lockout Pin In Standard
- 1 x ERSLOK207 Miniature Circuit Breaker Lockout Tie Bar
- 1 x ERSLOK208 Miniature Circuit Breaker Lockout Pin Out Wide
- 1 x ERSLOK141 Miniature Circuit Breaker Lockout - Universal
- 1 x ERSLOK140 Universal Fuse Circuit Breaker Lockout
- 1 x ERSTGPEN01 FINELINE Permanent Marker Pen
- 1 x ERSLOK043 Universal Circuit Breaker Lockout
- 1 x ERSLOK161 Aluminium MCB Lockout Toggle



PART NO	DESCRIPTION
ERSLOK3	Contractor Pro Lockout Kit





Industrial

## Miniature Circuit Breaker Lockout Blister Kit

Includes:

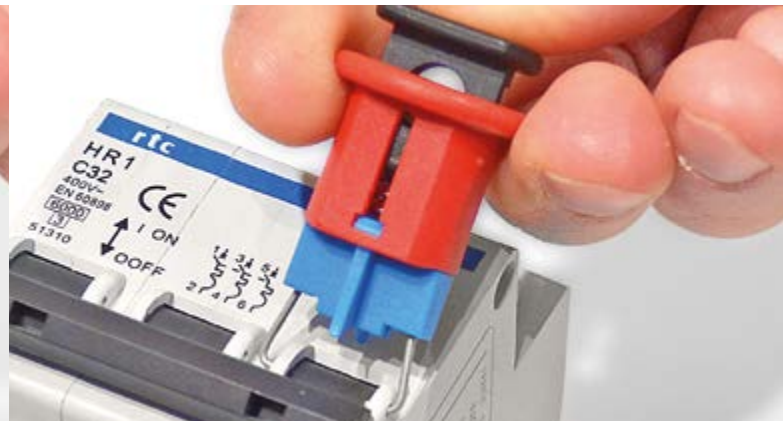
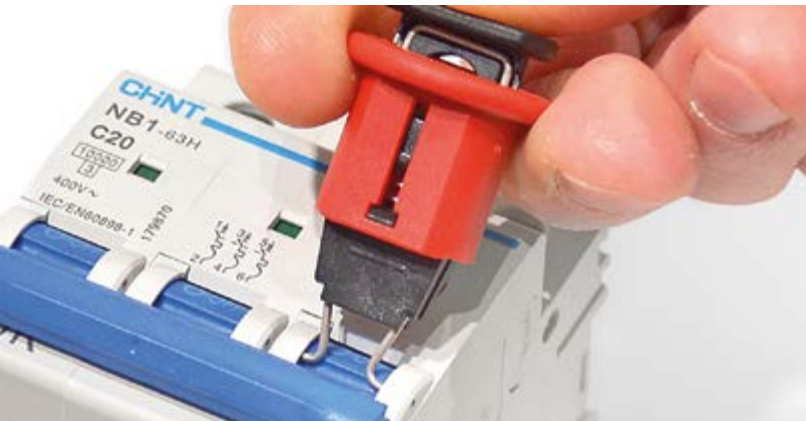
- 1 x ERSLOK007 Red Safety Lockout Padlock
- 1 x ERSLOK161 Aluminium MCB Lockout Toggle
- 1 x ERSTGPEN01 Permanent Fine Liner Pen
- 1 x ERSLOK242 'Do not operate' Lockout Eyelet Tag



PART NO	DESCRIPTION
ERSLOK04	Miniature Circuit Breaker Lockout Blister Kit

## Miniature Circuit Breaker Lockouts

Our range of miniature circuit breaker (MCB) lockouts have been designed to fit most modern single and multiple pole miniature circuit breakers. The lockout prevents the Circuit Breaker Toggle from being turned on, use appropriate padlock to prevent unauthorised removal. Due to the size of these MCB lockouts, should you need to use a hasp to increase the number of padlocks we recommend the Di-Electric Hasp ERSLOK127 or Nylon Shackle Padlock ERSLOK068.



## Miniature Circuit Breaker Lockout 3-Pack

Includes:

- 1 x ERSLOK205 MCB Lockout Pin Out Standard
- 1 x ERSLOK206 MCB Lockout Pin In Standard
- 1 x ERSLOK208 MCB Lockout Pin Out Wide



PART NO	DESCRIPTION
ERSLOKPIN3	Miniature Circuit Breaker Lockout 3-Pack



## Industrial

### 'Pin Out' Miniature Circuit Breaker

- Designed to fit most popular breakers up to 60A



PART NO	DESCRIPTION
ERSLOK205	'Pin Out' Miniature Circuit Breaker

### 'Pin In' Miniature Circuit Breaker

- Designed to fit most popular breakers up to 60A



PART NO	DESCRIPTION
ERSLOK206	'Pin In' Miniature Circuit Breaker

### Tie Bar Miniature Circuit Breaker

- Adjustable thumb wheel operation
- Fits larger or multi-pole circuit breakers connected with a cross bar
- Requires no holes in the breaker to fit



PART NO	DESCRIPTION
ERSLOK207	'Pin In' Miniature Circuit Breaker

### 'Pin Out Wide' Miniature Circuit Breaker

- Designed with extra wide body to fit breakers greater than 60A



PART NO	DESCRIPTION
ERSLOK208	'Pin Out Wide' Miniature Circuit Breaker

### Aluminium MCB Lockout Toggle

- Our smallest MCB toggle lock is simply to use - simply place over the breaker and tighten the internal grub screw
- Maximum clamping size  $\leq 6\text{mm}$



PART NO	DESCRIPTION
ERSLOK161	Aluminium MCB Lockout Toggle

### MCB Lockout – Universal

- A universal lockout which is fitted using an internal grub screw
- This version is suitable for larger toggles  $\leq 12\text{mm}$  in depth and  $22\text{mm}$  wide



PART NO	DESCRIPTION
ERSLOK141	MCB Lockout – Universal

### Electrical Cylinder Lockout

- Interlocking cover plates allowing plugs with various sizes of cable to be inserted inside
- Interior size  $84\text{mm}$  diameter.
- Cable widths up to  $34\text{mm}$  diameter.
- Size:  $97\text{mm}$  diameter x  $160\text{mm}$

PART NO	DESCRIPTION
ERSLOK058	Electrical Cylinder Lockout



### Universal Fuse Circuit Breaker Lockout

- A universal fuse lockout which is fitted using an internal grub screw
- Suitable for use on fuse holders from  $20\text{A}$  to  $400\text{A}$ , manufactured from nylon
- Maximum clamping size  $\leq 5\text{mm}$



PART NO	DESCRIPTION
ERSLOK140	Universal Fuse Circuit Breaker Lockout



## Hasps

Often more than one padlock needs to be fitted to an isolation point, and to ensure you can do this a hasp can be fitted to expand the number of lockout points available. The design of a hasp ensures that all the padlocks need to be removed before the hasp can be detached and the equipment re-energised.

### Standard Hasps

- Manufactured from high tensile steel sheet which has been electro-plated to prevent rusting



PART NO	SIZE
ERSLOK044	25mm
ERSLOK045	38mm

### Di-Electric Lockout Hasp

- Non-conductive reinforced nylon hasp which opens using a pull and spring method
- With a bracelet thickness of 6mm, the hasp can be locked out by up to 6 padlocks

PART NO	DESCRIPTION
ERSLOK127	Di-Electric Lockout Hasp



## Padlocks

Padlocks are an essential part of a Lockout Tagout Programme. There are various types of keying systems that can be used as part of an effective LOTO programme. Choose the type which is suitable for the intended process, bearing in mind its place within the overall company Lockout procedure.

### Nylon Shackle Safety Padlock

PART NO	COLOUR
ERSLOK068	Red
ERSLOK263	Yellow
ERSLOK264	Green
ERSLOK265	Blue
ERSLOK066	Black
ERSLOK067	Orange

- A compact padlock with a hardened nylon shackle with non-conductive properties



### Safety Padlock

PART NO	COLOUR
ERSLOK007-L	Red
ERSLOK008-L	Yellow
ERSLOK009-L	Green
ERSLOK010-L	Blue
ERSLOK011-L	Black
ERSLOK012-L	Orange

### Safety Lockout Padlock

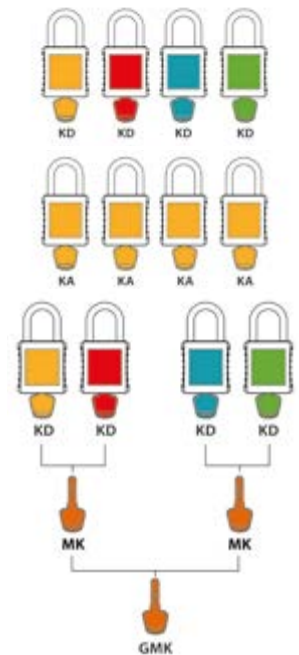
- 6-pin precision-machined cylinder for extra security
- Reinforced nylon body is non-conductive, non sparking and resistant to chemicals and corrosion
- Colour coded for easy identification with a photo-luminescent label
- Key retaining feature
- Individually keyed locks for optimum security (KD)
- Supplied boxed with 1 key and keyring
- Other keying options available on request (KA, MK and GMK)



### Long Shackle Safety Padlock

PART NO	COLOUR
ERSLOK197-L	Red
ERSLOK198-L	Yellow
ERSLOK199-L	Green
ERSLOK200-L	Blue
ERSLOK202-L	Black
ERSLOK201-L	Orange

#### Keying options







## Tags

These highly visible warning tags are printed using UV resistant inks and inclusive of space for contact details with printing on both signs. Manufactured from durable non-tear polypropylene which is resistant to water, oils and extreme temperatures. Tags are supplied in packs of 10 complete with tie wraps.

### Lockout Tagout Tags

- Size: 75 x135mm
- 10-Pack



Reverse side:



PART NO	DESCRIPTION
ERSLOK050	'Do not operate' Lockout Tag
ERSLOK073	'Do not use' Lockout Tag

### Lockout Tagout Tags with Eyelet

- Size: 75 x135mm
- 10-Pack



Reverse side:



PART NO	DESCRIPTION
ERSLOK236	'Do not operate' Lockout Tag
ERSLOK235	'Caution' Lockout Tag



Industrial

### Premium Lockout Pouch

- Hard shell nylon pouch with integral pocket webbing
- Dimensions (H x W x D): 75 x 265 x 165mm



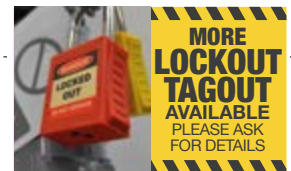
PART NO	DESCRIPTION
ERSLOK189	Premium Lockout Pouch

### Permanent Ultra-Fine Tip Markers

- These permanent ultra-fine marker pens can write on almost any surface
- The waterproof and smudge proof ink dries in seconds with almost no odour, and is ideal for use with our Tags and Padlocks



PART NO	DESCRIPTION
ERSTGPEN01	Permanent Ultra-fine Tip Markers



### A-Boards

- Size: 620 x 300 x 450mm
- Heavy duty polypropylene
- Printed on both sides
- Ideal for placement around the workplace and equipment being locked out

PART NO	DESCRIPTION
ERS4707	'Caution. Lockout Procedure in progress' A-Boards
ERS4709	'Caution. Electricians working' A-Boards
ERS4710	'Danger. Men at work' A-Boards

# Lockout Stations

A lockout station provides a platform to store your lockout equipment when not in use. A lockout station should be located wherever it is deemed most appropriate for its desired purpose, this could be next to the equipment to be locked out, a maintenance department or a central location. In addition the absence of any equipment is immediately apparent and the missing items can be traced or replenished.



## Industrial

### Advanced Lockout Station (Small) Filled Board

- Manufactured from tough moulded polycarbonate
- Provides 5 hooks and integral pocket for the presentation of lockout equipment and tags
- Complete with hinged translucent cover which protect contents when not in use
- Board dimensions (H x W x D): 406 x 315 x 65mm

**Includes:**

- 1 x ERSLOK219 Advanced Station Lock Board (Small)
- 4 x ERSLOK007-L Red safety lockout padlocks (KD)
- 1 x ERSLOK044 25mm vinyl coated hasp
- 1 x ERSLOK050 Pack (10) of 'Do not operate' tags



PART NO	DESCRIPTION
ERSLOK231	Advance Lockout Station (Small) - Filled Board

**Board Only**  
PART NO. ERSLOK219



### Advanced Lockout Station (Large) Filled Board

- Manufactured from tough moulded polycarbonate
- Provides 14 hooks and two integral pockets for the presentation of lockout equipment and tags
- Complete with hinged translucent cover which protect contents when not in use
- Board dimensions (H x W x D): 558 x 393 x 65mm

**Includes:**

- 1 x ERSLOK220 Advanced Station Lock Board (Large)
- 10 x ERSLOK007-L Red safety lockout padlocks (KD)
- 1 x ERSLOK044 25mm vinyl coated hasp
- 1 x ERSLOK045 38mm vinyl coated hasp
- 1 x ERSLOK050 Pack (10) of 'Do not operate' tags
- 1 x ERSLOK073 Pack (10) of 'Do not use' tags

**Board Only**  
PART NO. ERSLOK220

PART NO	DESCRIPTION
ERSLOK232	Advance Lockout Station (Large) - Filled Board



## Pin & Sleeve Plug Lockout

Designed to fit on all types of male pin and sleeve plugs, locking in place and preventing insertion into the socket.



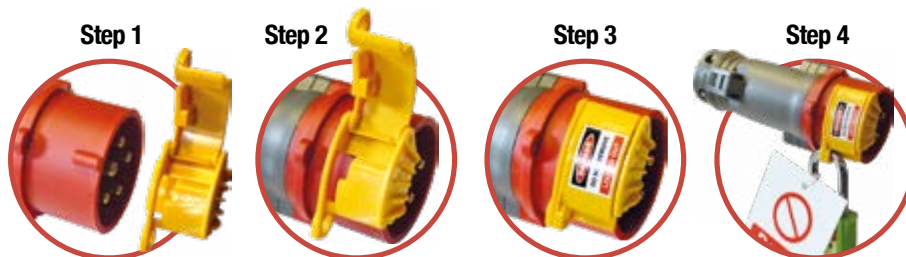
Industrial

## Pin & Sleeve Plug Lockout

To use:

Open the lockout and slip it over the top of the locating tab on the rim of the plug. Close the lockout and secure it with a padlock and affix a tag to display the relevant safety information. (16A - 125A)

PART NO	DESCRIPTION
ERSLOK168	Pin & Sleeve Plug Lockout



## Button Lockout

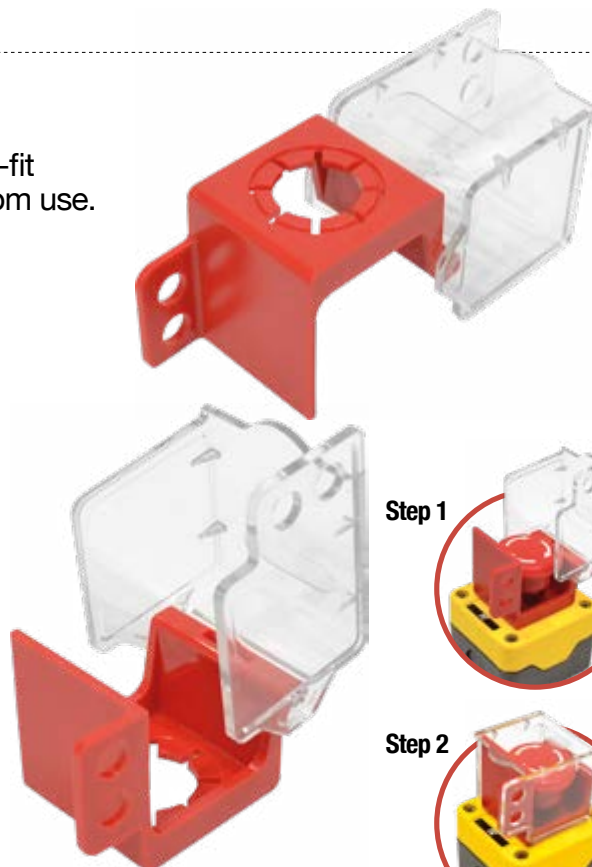
Isolate common push button switches with this retro-fit lockout unit, ensuring that the button is prevented from use.



## Button Lockout

- Manufactured from glass resin polycarbonate, this lockout unit fits around the stem of a button which can then be locked out using a standard padlock
- This unit can be fixed either permanently or on an ad hoc basis
- To fit permanently, use the circular section around the stem of the button and shut the cover in place when needed
- To use on an ad hoc basis, use the semi-circular section to sit round the stem prior to fitting the cover and remove when finished

PART NO	DESCRIPTION
ERSLOK195	Button Lockout



## Button Lockout

- Manufactured from glass resin polycarbonate, this lockout unit fits around the stem of a button which can then be locked out using up to two standard padlocks
- Hole diameter of 22 - 30mm

PART NO	DESCRIPTION
ERSLOK187	Button Lockout



## Shadow Boards

Originally designed as one of the 5S processes used to increase productivity within the manufacturing industry, shadow boards can nonetheless be used as a tool to organise and improve any type of business regardless of 5S integration.

## Shadow Boards

A well designed shadow board enables the ease of location of its contents as well as the identification of missing equipment within seconds. This instant identification speeds up production, reduces errors and prevents cross contamination in hygiene areas.

- Cleaning Stations
- First Aid Stations
- Lockout Boards
- Hand Tool Storage
- Workshop Equipment

## Creating a Shadow Board

To create a shadow board simply contact YESSS Electrical and either supply us with the design or work with our skilled team to design the board to your exact specifications.

These boards can be manufactured on foamed PVC or aluminium composite, with pre-cut vinyl shapes or completely digitally printed with your choice of colours and company branding.

This can then be coated with the protective laminate of your choice and the appropriate fittings applied. In the case of First Aid or Lockout stations we can also supply appropriate equipment to stock the board.

## What Is 5S?

5S is the name of the workplace organisation method developed in the Japanese manufacturing industry in an effort to streamline productivity.

These words are:

- Sort
- Streamline
- Shine (or Sweep)
- Standardise
- Sustain
- Seiri
- Seiton
- Seiso
- Seiketsu
- Shitsuke

Remove unnecessary or unrelated materials from the workplace.

Arrange necessary items in their proper place for retrieval and use. Clean the workplace completely. Standardise the best practice within the workflow and housekeeping guidelines.

Maintain the 5S methodology, it should become second nature to all users.



## Need a Site Survey?

By law the correct safety signage should be displayed in the appropriate locations and to current legal standards. A Site Survey is advisable if you are unsure of your legal obligations or have been notified by a regulatory body that your current signage is not adequate.

- Site Surveys identify the signs you need, including size, positioning and materials, as well as any bespoke sign manufacturing service needs.
- Site Surveys also provide advice on ensuring the safety of you and your staff, including Lockout Tagout and Asset Management.

To find out how Site Surveys can help your business please contact our sales team.



# MACHINE & SITE SAFETY

- 121 Safety Solutions
- 122 Machine Lighting
- 124 Tower Lighting
- 124 Photo Sensors
- 125 Machine Sensors
- 127 Vibration & Temperature Monitoring
- 128 Safety Sensors
- 130 Safety Switches
- 140 Rubber Matting & Cable Guards
- 142 Safety Signage & Labels
- 147 PPE





## Providing machine safety solutions in accordance with European Machine Safety Legislation and EN Standards

### Machine Guarding

Guarding systems are in accordance with EN Standards and CE Marked accordingly issued with a Declaration of Conformity.

### Guarding Design

Perimeter and bespoke machine guarding design is available to meet customer requirements

### Services

- CE Audits
- PUWER Assessments
- EN ISO 13849-1 and EN 62061 verification and validation
- Machine Safety Training



**SITE SURVEYS  
AVAILABLE**  
ON REQUEST  
**CONTACT YOUR  
LOCAL BRANCH**



## TURCK

## BANNER

### Work Lights

Control cabinet and enclosure lighting solutions with AC or DC powered versions, motion control and a broad range of mounting brackets.



### Industrial LED Machine Lights

Monitor, troubleshoot, and maintain. Bright, even machine lighting for the harshest environments, allows operators to monitor processes effectively and see clearly when troubleshooting, refilling material, or completing other manual tasks.



### Industrial LED Strip Lights

Lighting solutions for workbenches, manual assembly stations, and visual inspection stations. Our workstation and area lighting devices provide bright LED illumination and feature intensity control options that allow operators to adjust light levels.



## Heavy-duty Lights

Products are suitable for use in washdown environments, hazardous areas, and high temperature applications. We offer a variety of waterproof devices that are resistant to common cleaning chemicals, as well as products that are resistant to cutting oils and fluids.



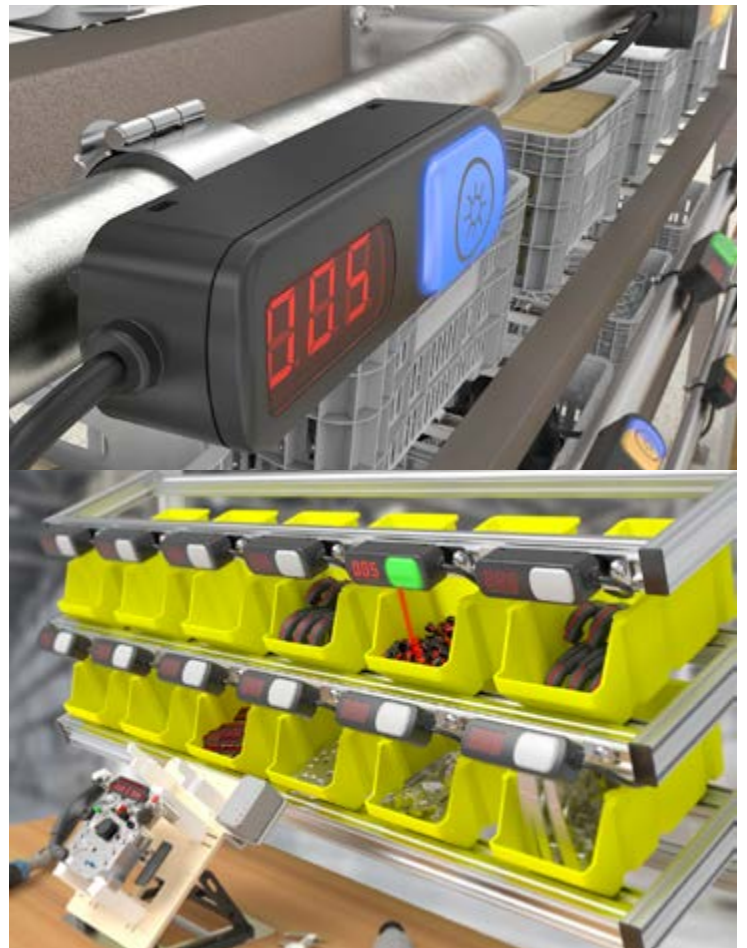
## Flexible Arms

Provide versatile mounting options to easily direct lighting where it is needed, whether in a work station or along a manufacturing line. Available for use with spotlights, work lights and vision spotlights.



## Pick-to-light

Pick-to-light devices and systems help industrial automation manufacturers reduce the risk of error in the assembly process, boosting product quality and reducing cost.





## TURCK

## BANNER

### Indicators

Turck Banner indicators offer a wide variety of bright, highly visible models ranging from daylight visible to multiple colours in one device. Indicators have a rugged design for long-term use and require no additional protective box.



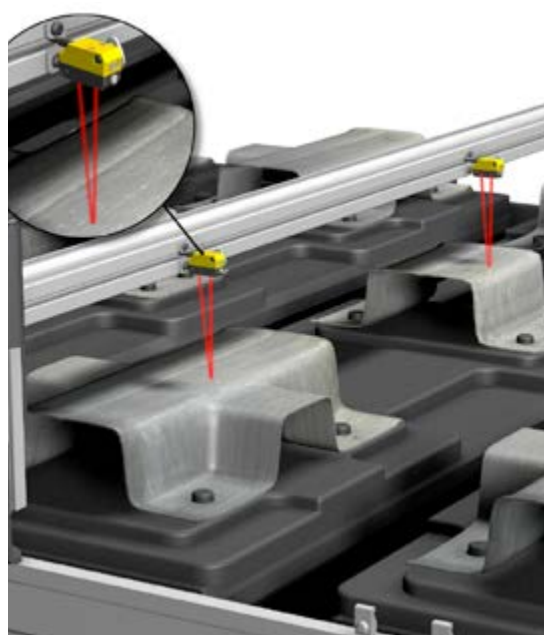
### Touch buttons and Tower Lights

Preassembled and preconfigured multi-segment LED tower light indicators. RGB Segments, programmable versions, choice of AC or DC, 3 audible output options, standard or high light intensities and IP65 to IP69K . Touch buttons for industrial applications with multiple colours and I/O capabilities, can replace several conventional buttons, ideal in lean manufacturing environments.



### Photoelectric Sensors

Sensors for material handling, packaging, food and beverage, medical, and many others industries. With or without a reflector, self-contained, long-range, heavy-duty, or compact, IP67, IP69K and ATEX approved.





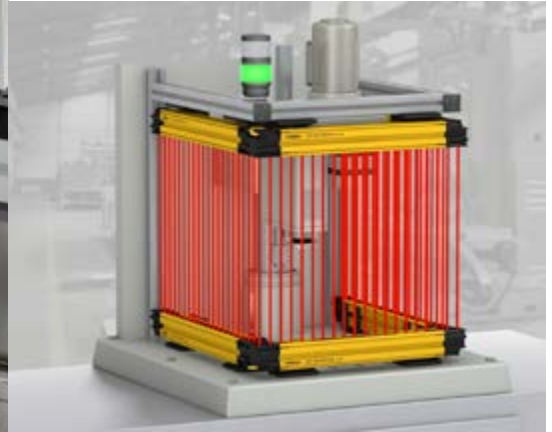
**TURCK**

**BANNER**



## Safety Systems

Safety Light Curtains, Safety Controllers, Relays, Emergency Stops, Stop Control, Safety Switches, Two-Hand Controls and Safety Laser Scanners



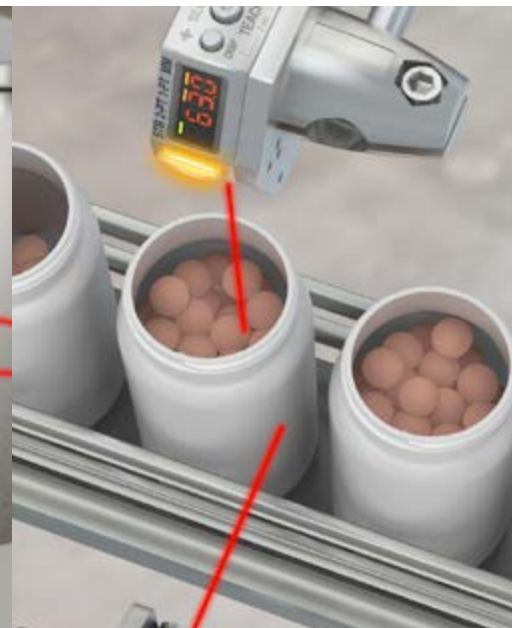
## Vision Barcode & RFID Systems

Our vision sensors, Barcode and RFID systems combine high-performance tools, intelligent features, and an intuitive user interface. They are cost-effective, easy-to-deploy solutions for solving numerous applications, from simple feature verification to complex, high-speed inspections.



## Specialist Laser Sensors

These sensors solve many challenging applications and come in a rugged IP69K rated, FDA food grade stainless steel housing. Other Sensors available include high power versions, long distance (24M) and best in class precision measurement.

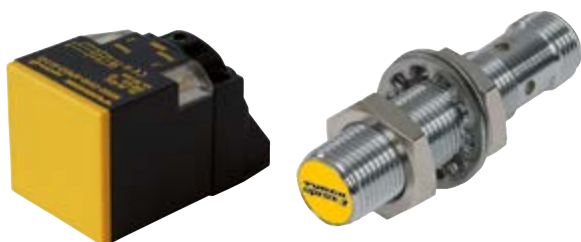


## TURCK

## BANNER

### Inductive and Magnetic Sensors

Inductive sensors are available as both threaded barrels and 'block' types. For special applications we can provide suitable solutions. Large switching distances and rugged housing make these sensors extremely reliable. Magnetic field sensors are used to detect the piston position in pneumatic cylinders.



### Contactless Encoders

These make no compromises in terms of ruggedness or resolution and are suited to any application where rotation speeds, sense, position, angle and lengths have to be captured. Wear-free, they will withstand even the harshest environmental conditions.



### Wireless Networks

Wireless products connect remote assets with their operators, enabling real-time monitoring and management of equipment and conditions in difficult-to-access locations or where wired solutions are impractical, ineffective or cost-prohibitive. OEE, Conditioning Monitoring, Level etc...



### Others sensors and Connectivity

- Flow, Temperature and Pressure
- Ultrasonic and Radar
- Linear and Angular Positioning
- Vehicle Detection
- Laser Distance Measuring
- Inductive Couplers
- RFID - tracking and traceability





## Wireless Vibration & Temperature Monitoring for Motors, Compressors, Fans and Pumps



### Measure & Collect

Wireless Vibration, Temperature & Current Monitoring

- IP67 & IP69K Sensors
- Sensors Powered by batteries



### Transmit

IIOT Gateway/Controller Solution Kits

- Sensors send data wirelessly to Gateway/Controller
- Machine Learning Algorithm

### Distribute

Connected data solutions

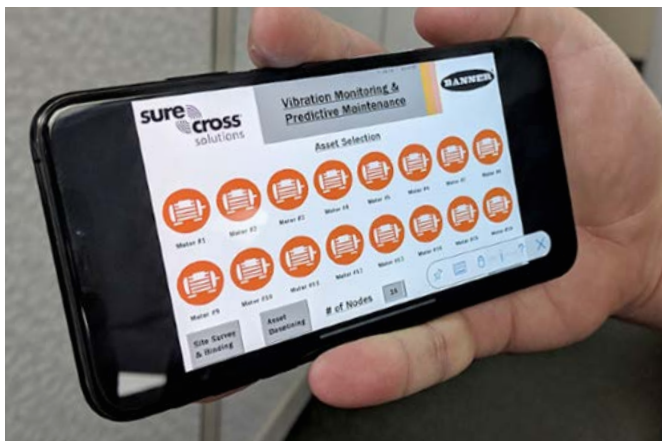
- Data is pulled from the controller via cellular or Ethernet and Stored in a SCADA or Cloud Platform



### Alert and Consumption

Consume the data via Dashboards, alerts and long term analysis

- Early detection of any increase allows for planned, preventative maintenance







Sensor Intelligence.



## Inductive Proximity Sensors IMR

The IMR family of Reduction Factor 1 inductive sensors can detect non-ferrous materials at 3 times the distance compared to regular inductive sensors. Ideal for welding applications.

- Switching errors due to electromagnetic fields are prevented
- PTFE coating for a long service life in harsh conditions
- Extra large sensing range for all metals which reduces mechanical damage and sensor failures
- Simple and reliable detection of metal objects
- Extended temperature range
- IP68 enclosure rating
- High switching frequencies for fast automation processes

PART NO	DESCRIPTION
IMR12-04NPSTC0S	M12, 4mm Flush, PNP, NO, M12 4 PIN Connector
IMR08-02BPSTC0S	M8, 2mm Flush, PNP, NO, M12 4 PIN Connector
IMR30-15BPSTC0S	M30, 15mm Flush, PNP, NO, M12 4 PIN Connector
IMR18-08BPSTC0S	M18, 8mm Flush, PNP, NO, M12 4 PIN Connector



## deTec4 Core Safety Light Curtain

The new generation of deTec safety light curtains is the ideal protection partner for hazardous areas. Intelligent and state-of-the-art technologies such as NFC and IO-Link offer completely new possibilities for comprehensive diagnosis, fast installation and performing automation functions.



- Simple assembly with innovative mounting
- No blind zones
- Integrated LED display
- Resolution of 14 or 30 mm
- A wide selection of protective field heights
- Automatic calibration on the protective field width up to 10m
- Ambient operating temperature of -30°C to +55°C
- Enclosure rating IP65 & IP67
- Flexi Loop-compatible M12 male connector

PART NO	DESCRIPTION
DETEC4CORESET14600	Core Set: 600mm Height, 14mm ODC
DETEC4CORESET141050	Core Set: 1050mm Height, 14mm ODC
DETEC4CORESET30450	Core Set: 450mm Height, 30mm ODC
DETEC4CORESET301350	Core Set: 1350mm Height, 30mm ODC
DETEC4CORESET301500	Core Set: 1500mm Height, 30mm ODC

## OTHER BRANDS ALSO AVAILABLE:

BALLUFF • BAUMER • CONTRINEX • DATALOGIC • DATASENSOR • IFM  
 IMO • KEYENCE • LEUZE • OMRON • PEPPERL AND FUCHS • RECHNER  
 SENSOART • TELCO • TELE • TURCK BANNER

Contact your local YESSS branch for your sensor requirement



Sensor Intelligence.

## Pressure Sensors

### PBS - Universal Pressure Switch

- Electronic pressure switch with display for monitoring pressure in liquids and gases
- Precise sensor technology with stainless steel membrane
- Integrated process connections manufactured from high-quality stainless steel
- Pressure values indicated on display. Output states are indicated separately via wide-angle LEDs.
- Unit of pressure value in display can be switched

PART NO	DESCRIPTION
PBS-RB010SG2SS0AMA0Z	0-10 BarG 2x PNP G1/4 Female M12 4-Pin
PBS-RB010SG2SS0BMA0Z	0-10 BarG 1x PNP + 4-20ma G1/4 Female M12 4-Pin



### PBT - All-round Pressure Transmitter

- No moving parts: No mechanical wear, fatigue proof, maintenance-free
- Electrical connection M12x1, L-connector acc. to DIN 175301-803 A
- Circularly welded, hermetically sealed stainless steel membrane
- A large variety of available process connections

PART NO	DESCRIPTION
PBT-RB025SG1SSNVLCOZ	Pressure Transmitter, 0-25 BAR, 0-10V Output
PBT-RB250SG1SSNULA0Z	Pressure Sensor, 0-250 BAR, 0-5V Output



## W16 & W26 Smart Sensors

### Next-generation W16 and W26 smart sensors

- The W16 and W26 range of advanced photoelectric sensors with BluePilot technology have replaced the legacy W14 & W18 and W23 & W27 families.
- BluePilot operating system with LED feedback
- Advanced optical detection reliability
- Designed for the future - Industry 4.0 and beyond
- Tough VISTAL chemical resistant construction

PART NO	DESCRIPTION
WSE16I-24162100A00	W16 - 45m Range, M12 Connector, Through Beam
WLA16P-24162100A00	W16 - 10m Range, M12 Connector, Retro-Reflective
WLG16P-24162120A00	W16 - 5m Range, M12 Connector, Retro-Reflective
WTB16I-24161120A00	W16 - 1.5m Range, M12 Connector, Diffuse
WTS16P-24161120A00	W16 - 750mm Range, M12 Connector, Diffuse
WLA26P-24162100A00	W26 - 18m Range, M12 Connector, Retro-Reflective
WTB26I-24161120A00	W26 - 2m Range, M12 Connector, Diffuse
WTS26P-24161120A00	W26 - 1.2m Range, M12 Connector, Diffuse





- Can protect conveyors up to 200m

## Guardian Line Series - Grab Wire Safety Rope Switches

ATEX EXPLOSION PROOF VERSIONS ALSO AVAILABLE.



Up to 50m can be protected using two switches or with a single switch distances up to 30m can be protected. The GLM provides a reliable and cost effective safety solution for the shorter conveyer or systems and has optional E-Stop and 2-colour LED to show switch status.



Up to 80m (using two switches) or up to 60m (using a single switch). They are supplied complete with a mushroom type E-Stop which can be fitted (with no extra wiring) to the side of the switch to offer an extra traditional E-Stop function close to the switch.



- Heavy Duty Rope Pull Switch
- Stainless Steel 316 housings

Medium duty Stainless Steel grab wire safety rope switch designed to protect conveyor lengths up to 30m using just one safety rope switch.



Stainless Steel grab wire safety rope switch designed to protect conveyor lengths up to 80m using just one safety rope switch.



## IDEM Patented Tensioner/Gripper System and Rope System Accessories



Rope Kits up to 126m. Contains Rope, Eyebolts and Tensioner/Gripper.



The Tensioner thimble allows immediate, accurate and final tensioning of the rope, whilst viewing the tension marker through the viewing window of the rope switch.



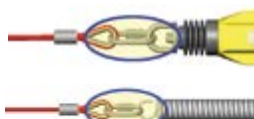
Flexible Roller Eyebolt with Adjustment



Flexible Roller Eyebolt with Nuts no Adjustment



Pigtail Eyebolt Stainless Steel available in 114mm or 154mm length.



For systems up to 50m a Quick Link clamp is provided at one end of the rope for easy connection to either a safety spring or switch eyebolt.



Stainless Steel Mounting bracket Suitable for all IDEM Guardian Line Rope Safety Pull Switches.



Standard Eyebolt Stainless Steel or Galvanised available in 84mm or 130mm length.



Universal Pulley



LED-various options



Rope Tensioner/Gripper Stainless Steel or Galvanised



Safety Spring - Stainless Steel

Please note: Group Part No's - refer to the group category - please enquire at your local branch



## Mechanical Tongue Interlock Safety Switches - IP67 Ingress Protection



GROUP PART NO. INCH-1...

- Miniature plastic housing: 25 x 55mm with 17mm fixing centres
- 8 Actuator entry positions - designed with a rotatable Stainless Steel 316 head
- 2 pole contact blocks



GROUP PART NO. INCH-3...

- 8 Actuator entry positions - designed with a rotatable Stainless Steel 316 head
- 3 pole contact blocks
- Choice of 3 conduit entries
- Plastic housing
- 25 x 79mm with 22mm fixing



GROUP PART NO. IDIS-1...

- Compact yet robust fitting suitable for all small guard applications Suitable for food processing and petrochemical industries
- 8 Actuator entry positions - rotatable head
- 3 pole contact blocks or 2 pole snap action
- 32 x 97mm with 17mm fixing



GROUP PART NO. K-15...

- 4 Actuator entry positions - designed with a rotatable head
- Compact body with 3 conduit entries
- 3 pole contact blocks
- 54 x 86mm with 40mm fixing
- Plastic or Stainless Steel 316 head options



GROUP PART NO. KP...

Explosion proof version available

- 4 Actuator entry positions - designed with a rotatable head
- 3 pole or 4 pole contact blocks
- 3 conduit entries
- 52 x 98mm with 40mm fixing
- Plastic or Stainless Steel 316 head options



GROUP PART NO. KM...

Explosion proof version available

- Robust die cast housing Slim fitting designed for where impact resistance is required
- Available with die cast or stainless steel head
- 8 Actuator entry positions - rotatable head
- 3 pole or 4 pole contact blocks
- 40 x 118mm with 30mm fixing

## IP69K Stainless Steel 316 Safety Interlock Switches

- Designed specifically for Food Processing, Packaging, Pharmaceutical and Petro-Chemical Industries
- Suitable for CIP /SIP Cleaning
- Fully Stainless Steel
- IP69K and IP67
- Tested to 80C and 80 bar chemical washdown



GROUP PART NO. K-SS-Ex...



GROUP PART NO. KM-SS-Ex...

Exd IIC T6 (-20 ≤ Ta ≤ +60C) Gb  
 tb IIIC T85C (-20 ≤ Ta ≤ +60C) Db



GROUP PART NO. MK1-SS...

- Compact with 22mm fixing centres
- Mirror polished finish
- Suitable for most applications
- 30 x 99mm
- Replaceable contact blocks
- Provides 8 actuator entry points
- Standard or flexible actuator 2NC 1NO contacts



GROUP PART NO. K-SS...

- Universal Fitting - established footprint
- Suitable for most general applications
- 52 x 99mm
- Replaceable contact blocks
- Head rotates to give 4 actuator entry points
- Standard or flexible actuator options
- 4 pole contacts



GROUP PART NO. KM-SS...

- Slim fitting suitable for most industrial applications
- Mirror polished surface finish (Ra4)
- 42 x 118mm
- Head rotates to protect head assembly and prevent tampering with switch
- Provides 8 actuator entry positions
- 3 or 4 pole contacts

## Mechanical Hinge Interlock Safety Switches

- Plastic bodied, Stainless steel head
- Fits to the hinged axis of small guard doors
- Available with solid stainless steel shafts or hollow shafts
- 2 safety contacts
- 2NC or 1NC 1NO
- 25 x 77mm with 18mm fixing



GROUP PART NO. HC-1...

- Plastic bodied, Stainless steel head
- Fits to the hinged axis of medium sized guard doors
- Available with solid stainless steel shafts or hollow shafts
- 2NC 1NO contacts
- 25 x 103mm with 18mm fixing



GROUP PART NO. HC-3...

- Fully Stainless Steel 316 body and head
- Robust hinge cam for fixing to the hinged axis of guard doors
- Available with solid stainless steel shafts or hollow shafts
- 2NC 1NO contacts
- 30 x 98mm with 22mm fixing



GROUP PART NO. HC-SS...

- Plastic body with Stainless Steel actuator
- Designed to fit to hinged axis of guard doors
- Available with 2NC 1NO, 3NC or 1NC 1NO snap action contacts
- 315 x 65mm (exc actuator) with 22mm fixing



GROUP PART NO. IDIS-2...

Please note: Group Part No's - refer to the group category - please enquire at your local branch



## Guard Locking Interlock Safety Switches (Solenoid)

### ATEX Mechanical Interlock Switches with Solenoid Guard Locking



GROUP PART NO. KLP...

- Compact plastic body/stainless steel head for medium to heavy duty guards.
- Provides 2NC safety contacts and 2NO aux. contacts or LED indication diagnostics.
- 8 Actuator entry positions - rotatable head.
- 46 x 160mm with 30mm fixing.



GROUP PART NO. KLM...

- Die cast metal switch suitable for heavy duty guard locking with solenoid locking.
- Provides 4NC safety contacts and 2NO auxiliary contacts or LED indication diagnostics.
- The 3 conduit entry points and 30mm fixing provide maximum flexibility on all applications.
- 46 x 176mm with 30mm fixing.



GROUP PART NO. KL1-P...

- Plastic body universal 40mm mounting.
- 4 Actuator entry positions - rotatable head.
- Stainless steel head for robustness - suitable for most industrial applications.
- 63 x 143mm with 40mm fixing.



GROUP PART NO. KLTM...

- Rugged die cast metal with Stainless Steel 316 head with solenoid locking. 3000N holding force.
- Provides 4NC safety contacts and 2NO aux. contacts or LED indication diagnostics.
- 3 conduit entry points. 73mm fixing centres.
- 105 x 150mm



GROUP PART NO. KL1-SS...

- Provides 4 actuator entry points.
- Rotatable head.
- Compact 63 x 143mm.
- 2 lock monitoring safety contacts.
- LED 1: Status of solenoid applied power.
- LED 2: Status of guard lock.



GROUP PART NO. KL3-SS...

- Power solenoid to unlock.
- Choice of 24V 110V or 230V operation.
- Slim body 48 x 177mm.
- Suitable for all industry applications.
- 2 LEDs for solenoid and lock status.
- Standard or flexible actuator options available.



GROUP PART NO. KL4-SS...

- Optional request button.
- Power solenoid to unlock.
- Choice of 24V 110V or 230V operation.
- Slim body 48 x 177mm.
- Suitable for all industry applications.
- 2 LEDs for solenoid and lock status.
- Standard or flexible actuator options available.



GROUP PART NO. KLT-SS...

- Rugged and solid Stainless Steel 316 suitable for heavy duty guard locking with solenoid locking. 3000N holding force.
- Provides 4NC safety contacts and 2NO aux. contacts or LED indication diagnostics.
- 3 conduit entry points.
- 73mm fixing centres.
- 105 X 150mm with 73mm fixing.

## Mechanical Interlock Switches with Solenoid Guard Locking and RFID Sensing

The Solenoid Guard Locking with RFID Series switches have been designed to incorporate high anti-tamper RFID coding and provide PLe safety levels to ISO13849-1. The RFID sensing is complemented by a traditional cam solenoid locking system which has been developed with a Holding Force of 3000N in die cast and Stainless Steel models (2000N plastic model) to keep guard doors closed until hazards have been removed. Unique rotating head offers both Front and End actuation. 32 million RFID codes – each switch unique – high coding to ISO14119. The fully Stainless Steel 316 enclosure has IP69K ingress protection which is maintained by a double seal lid gasket design. Choice of standard or flexible actuators with M12 Quick connect version available.

The KLM-Z-4ST incorporates all the switch features of the KLM-Z but offers extra machine control functions all in one housing incorporating standard 22mm push buttons, lamps or switches for machine request or control function. Designed specifically to fit on 50mm (2in.) frame sections. Stainless Steel 316 head and Die-Cast metal body Choice of standard or flexible actuators.



GROUP PART NO. KLP-Z...



GROUP PART NO. KLM-Z...



GROUP PART NO. KL3-SS-Z...



GROUP PART NO. KLTM-RFID...

Please note: Group Part No's - refer to the group category - please enquire at your local branch

## P2L Versions (Power to Lock)

- For machines without rundown time.

GROUP PART NO. KLP-P2L...



GROUP PART NO. KLTM-P2L...

Available with die-cast or stainless steel head



GROUP PART NO. KLM-P2L...



GROUP PART NO. KL3-SS-P2L...



## RR Versions (Rear Release)

- A manual escape release is provided to enable quick release of the switch lock in case of emergency.

GROUP PART NO. KLM-RR...



GROUP PART NO. KL3-SS-RR...



GROUP PART NO. KLTM-RFID-RR...



GROUP PART NO. KLT-SS-RFID-RR...



## IP69K Stainless Steel 316 Non Contact Safety Switches

### Hygiecode and Hygiemag Range

- Operates in temperatures up to 105C
- Suitable for CIP/SIP high-pressure cleaning
- IP69K or IP67
- Operates with most Safety Relays to achieve up to PLe/Cat.4 (ISO13849-1)

### Hygiecode Range

- Coded Actuation
- Solid State Parts
- Survives Shock and Vibration
- LED Indication

### Hygiemag Range

- High Power Magnetic Sensing
- Up to 1A Current Switching



PART NO. MMC-H and MMR-H

- Miniature fitting with industry standard
- 22mm fixing.
- M4 clearance holes - suitable for mounting with hexagonal head bolts.
- Coded Switch sensing: 10mm.
- Magnetic Switch sensing: 10mm.



PART NO. SMC-H and SMR-H

- Small Stainless Steel 316 hygienic housing.
- Can be mounted with hexagonal head
- Bolts to prevent food traps.
- Universal fitting 22mm fixing.
- Coded Switch sensing: 14mm.
- Magnetic Switch sensing: 12mm.



PART NO. SMC and SMR

- Small stainless steel 316 housing.
- Compact 50mm long with 22mm fixing hole centres.
- Coded Switch sensing: 14mm.
- Magnetic Switch sensing: 12mm.



PART NO. LMC and LMR

- Small stainless steel 316 hygienic housing.
- Rear fixing holes no visible food traps.
- Compact 50mm long with 22mm fixing hole centres.
- Coded Switch sensing: 14mm.
- Magnetic Switch sensing: 12mm.



PART NO. SMC-F and SMR-F

- Small stainless steel 316 hygienic housing.
- Rear fixing holes no visible food traps.
- Compact 50mm long with 22mm fixing hole centres.
- Coded Switch sensing: 14mm.
- Magnetic Switch sensing: 12mm.



PART NO. CMC and CMR

- Compact stainless steel 316 hygienic fitting.
- Slim fitting 20mm wide - can be fitted in narrow channels.
- Coded Switch sensing: 14mm.
- Magnetic Switch sensing: 12mm.



CMC-F and CMR-F

- Compact and narrow.
- Mounting holes at the rear - no food trap areas.
- Slim fitting 20mm wide can be fitted in narrow channels.
- Coded Switch sensing: 14mm
- Magnetic Switch sensing: 12mm



PART NO. WMC and WMR

- Robust 32mm wide housing.
- High tolerance to misalignment.
- Stainless steel housing with mirror polished finish.
- Coded Switch sensing: 14mm.
- Magnetic Switch sensing: 12mm.



PART NO. RMC and RMR

- Barrel type cylindrical fitting with M30 thread.
- 45mm adjustment length.
- Easy to install and set.
- Suitable for all applications.
- Coded Switch sensing: 10mm.
- Magnetic Switch sensing: 10mm.
- Suitable for some food contact zones.

Please note: Group Part No's - refer to the group category - please enquire at your local branch





## Non Contact Explosion Proof Safety Switches in Stainless Steel 316



Fitted with Stainless Steel flexible conduit

Group Part No. WM1-Ex...

- II 1G Ex ma IIC T6 Ga
- II 1D Ex ma IIIC T80 Da IP67\*

Zones 0, 20, 1, 21, 2, 22 Gas and Dust



Group Part No. WM2-Ex...

- II 2G Ex mb IIC T6 Gb
- II 2D Ex mb IIIC T80 Db IP67\*

Zones 1, 21, 2, 22 Gas and Dust



- II 2G Ex mb IIC T6 Gb
- II 2D Ex mb IIIC T80 Db IP67\*

CM1-Ex, CM2-Ex, CM3-Ex, RM-Ex, LM-Ex Zones 1, 21, 2, 22 Gas and Dust



Group Part No. CM3-Ex...



Group Part No. CM1-Ex...



Group Part No. RM-Ex...



Group Part No. CM2-Ex...



Group Part No. LM-Ex...

## Plastic Non Contact Safety Switches

### Hygiecode and Hygiemag Range

- Industry established universal fittings - suitable for all applications
- Specified to work up to 80C
- IP67 or IP69K
- High specification plastic housings
- Operates with most Safety Relays to achieve up to PLe/Cat.4 (ISO13849-1)



#### Miniature Fitting:

- Cable exit left or right options available.
- Supplied with hygienic screw cap covers.
- Sensing: 10mm.

Group Part No. MPC...

#### IDEMAG Version:

- Sensing: 12mm.

Group Part No. MPR...



#### Small Fitting:

- Universal fitting with an established industry footprint
- Withstands environments of high humidity and wash down conditions.
- Sensing: 14mm.

Group Part No. SPC...

#### IDEMAG Version:

- Sensing: 12mm.

Group Part No. SPR...



#### Euro Fitting:

- Narrow fitting for flush mounting.
- Unique long life high power switching.
- IP69K
- Sensing: 14mm.
- Available with LED if required

Group Part No. LPC...

#### IDEMAG Version:

- Sensing: 12mm.

Group Part No. LPR...



#### Wide Fitting:

- LED indication.
- No moving parts - survives shock and vibration.
- IP69K.
- Sensing: 14mm.

Group Part No. WPC...

#### IDEMAG Version:

- Sensing: 12mm.

Group Part No. WPR...



#### M30 Cylindrical Fitting:

- Easy to install - M30 threaded body and easy to set.
- 45mm adjustment length.
- IP69K.
- Sensing: 10mm.

Group Part No. RPC...

#### IDEMAG Version:

- Sensing: 10mm.

Group Part No. RPR...

## IDECODE Versions

- Coded Actuation
- Solid State Parts
- Survives Shock and Vibration
- High Tolerance to Guard Misalignment

## IDEMAG Versions

- High Power Magnetic Sensing
- Up to 1A Current Switching
- High Tolerance to Guard Misalignment



#### Compact Fitting:

- Easy to install within narrow frame sections - can be installed unobtrusively.
- IP69K.
- Sensing: 14mm.

Group Part No. CPC...

#### IDEMAG Version:

- Sensing: 12mm.

Group Part No. CPR...

Please note: Group Part No's - refer to the group category - please enquire at your local branch

## Gate Bolts for Non Contact Switches



### Type: GBN-1

Suitable for:

- Coded type switches: SPC, SMC, SMC-H, LPC, LMC.
- Magnetic type switches: SPR, SMR, SMR-H, LPR, LMR.
- RFID type switches: SPF-RFID, LPF-RFID and LPZ-RFID.



### Type: GBN-3

Suitable for:

- Coded type switches: SPC, SMC, SMC-H, LPC, LMC.
- Magnetic type switches: PR, SMR, SMR-H, LPR, LMR.
- RFID type switches: SPF-RFID, LPF-RFID and LPZ-RFID.

## Non Contact RFID Safety Switches Non Contact RFID with Unique or Master Series Coding.

Designed to provide high security on guard doors Diagnostic LED - indicates safety circuits closed Connect up to 20 switches in series. Connect to other switches and E-Stops in series. High functional safety to ISO13849-1. Connects to most safety relays. 2NC safety outputs. 1NO auxiliary output for indication. Plastic or Stainless Steel 316 housings.



## LPZ RAMZSense RFID with Unique or Master Series Coding

Provides high security on guard doors. Maintains PLe/Cat.4 to ISO13849-1 even with switches connected in series. Connect up to 20 switches in series. Connect to other switches and E Stops. Connects to most popular safety relays. Safety outputs short-circuit protected.



## Standalone Non Contact Safety Switches with Built In Safety Relay

Standalone switches for direct machine control. Diagnostic LED - indicates safety circuits closed. Compact housing - fits on 40mm frame sections. Maintains PLe/ Cat.4 to ISO13849-1. 2NC Relay safety outputs - high current switching 3A Available in Plastic or Stainless Steel housings (IP69K). Connect up to 20 switches in series. Able to connect other switches and E Stops in series. Contact feedback circuit (manual or auto). Auxiliary output for indication of door open.



## Emergency Stops



- Stainless Steel IP69K High Temperature Wash Down
- 2 or 3 Conduit Entries 3 or 4 Pole Contacts
- 2NC 1NO, 2NC 2NO or 3NC 1NO



- Plastic IP67
- 2 Conduit Entries
- 3NC or 2NC 1NO contacts



- 4 Conduit Entries 4NC 2NO Contacts
- 2 Colour LED IP67/IP69K (S/Steel)
- ATEX Explosion Proof versions available

Please note: Group Part No's - refer to the group category - please enquire at your local branch





## IDEM VIPER Series SCR-i Safety Relays

### Features:

- Dual force guided relay output contacts with high current outputs up to 6A.
- Up to PLe/Cat.4 to ISO13849-1 and SIL3 to EN62061.
- Single or dual channel input.
- Feedback loop for monitoring contactors.
- Short circuit and earth fault monitoring.
- Automatic or manual start. Monitored manual.
- Instant or delayed contacts.



Group Part No. SCR-21-i...



Group Part No. SCR31-i...



Group Part No. SCR-31P-i...

### LED Diagnostic Features:

- All relays include a combination of the below diagnostics. (See full catalogue)
- Power applied to device
- Reset Circuit is closed
- CH1 External switch input 1 closed
- CH2 External switch input 2 closed
- K1, K2, K3 and K4 Internal relay safety output contacts closed



Group Part No. SCR-73-i...



Group Part No. SCR-31-42TD-i...



Group Part No. SEU-31-i...



Group Part No. SEU-31TD-i...

## Skorpion Trapped Key Interlocking with Key Exchange Isolation and Control Switches



- Stainless Steel or Die-Cast Key Barrel.
  - 63A 660V 4-Pole
  - 100A 660V 4-Pole
- Group Part No. ISB2...



- Stainless Steel or Die-Cast Key Barrel.
  - 25A 660V 4-Pole
  - 40A 660V 4-Pole
- Group Part No. ISB1...



- IP69K Control Switch in Stainless Steel or Die-Cast
  - 2NC 2NO 240V 3A max.
  - 3NC 1NO 240V 3A max.
  - 4NC 240V 3A max.
- Group Part No. ISB-CB...



- Stainless Steel or Die-Cast Barrel.
  - 660V 4-Pole (available in 25A, 40A and 63A)
  - 100A 660V 4-Pole
  - Fitted with Red /Green status lamps
- Group Part No. ISP-SKR...



- Group Part No. ISP..
- Stainless Steel or Die-Cast Barrel.
  - 660V 4-Pole (available in 25A, 40A and 63A)
  - 100A 660V 4-Pole



- IEC IECEx Ex ATEX
- Exd IIC T6 (-20 ≤ Ta ≤ +60C)
  - Ex tb IIIC T85C (-20 ≤ Ta ≤ +60C) Db
  - EX-Proof Control Switch in Stainless Steel or Die-Cast
  - 2NC 2NO 250V 2.5A max.
  - 1NC 1NO 250V 2.5A max.
  - 2NC 250V 4A max.
- Group Part No. ISB-CB-EX...

## Key Exchange System

Available in Stainless Steel or Die-Cast. Currently available with 1 Key Trapped and up to 5 Keys Released (non- sequential), or 1 Key Trapped and up to 9 Keys Released (sequentially).

Group Part No. SS-KE-NS4...



Key Trapped



Available with up to 10 keys, (First key trapped - 9 released)

Please note: Group Part No's - refer to the group category - please enquire at your local branch



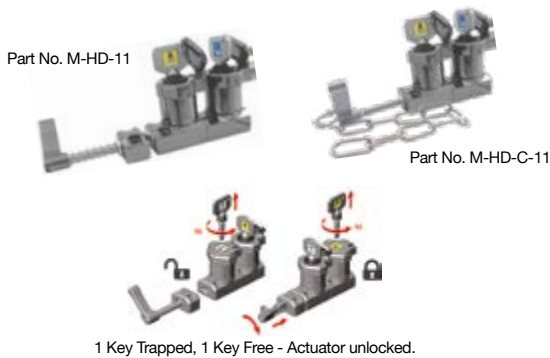
## Bolt Interlocks (not suitable for guard access) available in stainless steel (SS) and die-cast (M)



## Handle Interlocks (Single Key)



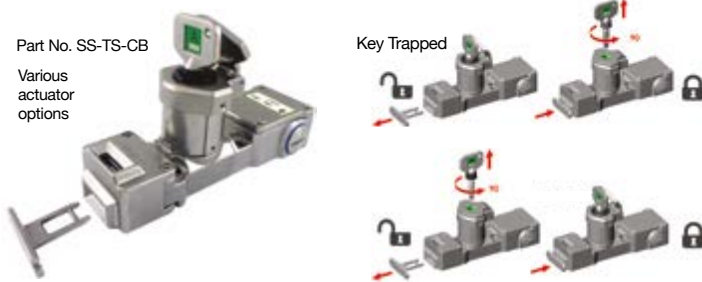
## Handle Interlocks (Dual Key)



## Tongue Interlocks (Single or Dual Key)



## Skorpion Trapped Key Interlocking with Key Exchange



### Interlocking with Control Isolation

**TONGUE INTERLOCK SINGLE KEY WITH CONTACT BLOCK AVAILABLE IN STAINLESS STEEL 316 OR DIE CAST WITH MIRROR POLISHED FINISH**

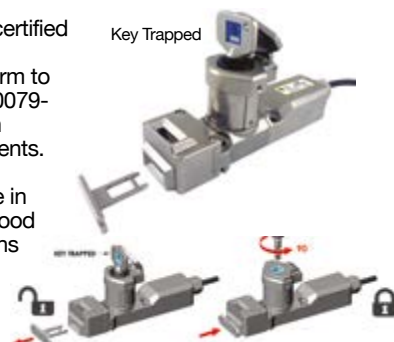
Single Tongue Interlock with 2NC 2NO Contact Block - 1/2" NPT

Single Tongue Interlock with 3NC 1NO Contact Block - 1/2" NPT

Single Tongue Interlock with 2NC 2NO Contact Block - M20

Single Tongue Interlock with 3NC 1NO Contact Block - M20

Trapped Key with ATEX EExd IIC T6 certified explosion proof contact blocks. The explosion proof contact blocks conform to European harmonized standard EN60079-0 and EN60079-1 and can be used in European Zone 1, 2, 21, 22 environments. (Gas and Dust). Adheres to the latest standard ISO13850, Designed for use in oil, petro-chemical, pharmaceutical, food processing and packaging applications where the potential for explosive atmospheres are present.



### Explosion Proof Interlocking with Control Isolation

**TONGUE INTERLOCK SINGLE KEY WITH EXPLOSION PROOF CONTACT BLOCK AVAILABLE IN STAINLESS STEEL 316 OR DIE CAST WITH MIRROR POLISHED FINISH**

Single Tongue Interlock with 2NC 2NO Contact Block - 1/2" NPT

Single Tongue Interlock with 3NC 1NO Contact Block - M20



Exd IIC T6 (-20 ≤ Ta ≤ +60C)

Ex tb IIIC T85C (-20 ≤ Ta ≤ +60C) Db

Please note: Group Part No's - refer to the group category - please enquire at your local branch



## Python Belt Alignment Switches

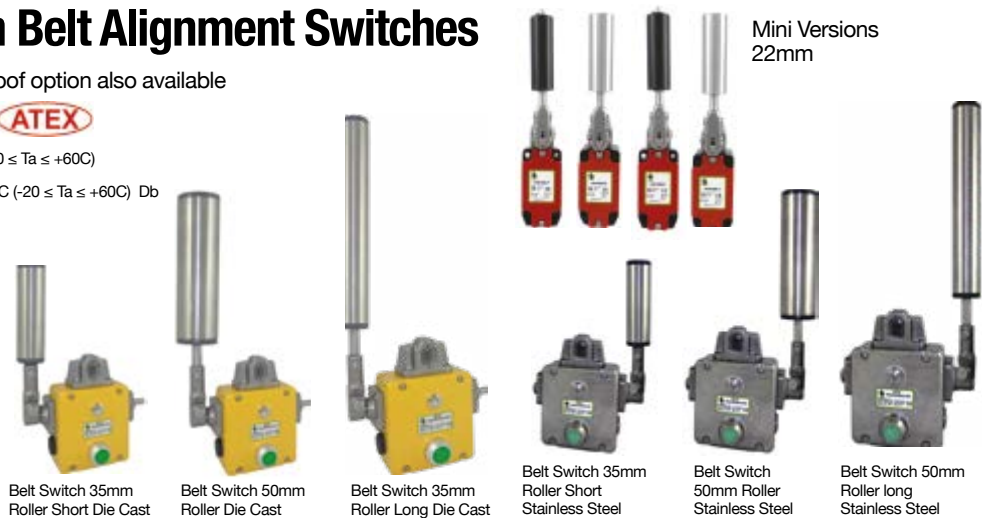
Explosion Proof option also available



Exd IIC T6 (-20 ≤ Ta ≤ +60C)

Ex tb IIIC T85C (-20 ≤ Ta ≤ +60C) Db

- Available with M20 and 1/2" NPT fixing.
- 24V, 110V and 230V models.
- 35mm Short Roller
- 35mm Long Roller
- 50mm Roller



Belt Switch 35mm Roller Short Die Cast

Belt Switch 50mm Roller Die Cast

Belt Switch 35mm Roller Long Die Cast

Belt Switch 35mm Roller Short Stainless Steel

Belt Switch 50mm Roller Stainless Steel

Belt Switch 50mm Roller long Stainless Steel

Mini Versions 22mm

## MGL Non Contact RFID Locking Switch



Part No. MGL-1SS

Part No. MGL-1M

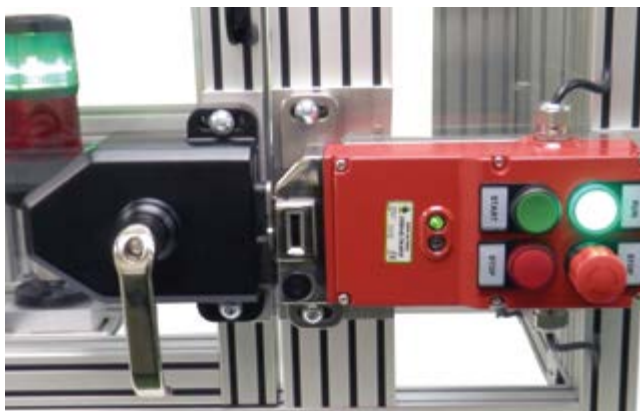
Part No. MGL-1P

The extremely popular MGL range of Non Contact Locking RFID Coded switches has been developed in order to provide and maintain a high level of functional safety whilst providing a reliable magnetic door interlock. Flexibility for holding force is provided by the provision of 2 different switch sizes to cover all applications.

- 2 Sizes Available: MGL-1 & MGL-2 Heavy Duty or Medium Duty holding force versions available.
- Housings in Stainless Steel 316 (with Stainless Magnet), robust Plastic or Die-Cast Metal.
- Will operate with most Safety Relays to achieve up to PLe/Cat.4 (ISO13849-1).
- RFID Master Coded or Unique Coding.
- Holding forces up to 1500N.

## Universal Gate Box and Gate Bolts for Interlock Switches

### BISON UGB-KLT & UGB-KLT-SS Solenoid Locking & RFID Gate Bolt with Configurable Multi-Functions



Available as:

- Die Cast metal painted red or Stainless Steel 316.
- 4 Station model or 2 Station model.
- Completely flexible - end user chooses buttons, lamps, switches options for each station.
- IDEM Universal Gate Boxes provide high level RFID coded interlocking and machine control functions in one heavy duty housing.
- They are easily fitted to access doors to provide guard locking, rear escape options and sliding or rotary handles.
- Holds guards closed up to 3000N and can be padlocked off for safe working in maintenance situations.



### Type: GBL-1

Shown fitted with KLM switch. Left-handed and right-handed models available to suit all applications.



### Type: GBL-1

Shown fitted with KLM-RR switch. For solenoid locking tongue switches with optional extra rear handle. Suitable for: KLP, KLM, KLM-RR and KL4-SS.



### Type: GBA-1

Suitable for KM tongue interlock switch.

# Safety Limit Switches in Stainless Steel or Die-Cast

Explosion Proof option also available



- Exd IIC T6 (-20 ≤ Ta ≤ +60C) Gb
- Ex tb IIIC T85C (-20 ≤ Ta ≤ +60C) Db

- IEC60947-5-1
- EN50041 Housings
- Die Cast IP67
- Stainless Steel IP69K
- AC15 A300 230V 3A
- Rotary or Linear Actions
- M20 or 1/2" NPT Entries
- High Mechanical Life - over 5 Million Operations

- Options:
- 2NC 1NO
  - 3NC
  - 2NC 2NO
  - 3NC 1NO
  - 4NC



Group Part No. HLM...  
Die-Cast IP67K

Group Part No. HLM-SS...  
Stainless Steel IP69K

## LSPS Plastic Body

- IEC60947-5-1
- EN50047 Polyester Housings
- Rotary or Linear Actions
- M20 or 1/2" NPT Entries
- High Mechanical Life - over 10 Million Operations
- AC15 A300 240V 3A
- 2NC 1NO
- 3NC or 1NC 1NO Snap Block
- Side or Bottom Cable Exits



## LSPM (Plastic Body) and LSMM (Die Cast Body)

- IEC60947-5-1
- Rotary or Linear Actions
- M20 or 1/2" NPT
- High Mechanical Life
- AC15 A300 240V 3A
- -25C +80C



## Micro Switches

To complement our range we now stock a wide range of the most popular micro switches including Pin Plunger, Roller Lever Panel Mount types, Short and Long Hinge Lever, etc.



Please note: Group Part No's - refer to the group category - please enquire at your local branch





## HV Switchboard Rubber Matting

- Tested to IEC61111
- Maximum working voltage 17kV & 36kV
- Standard colour grey
- Other colours available, minimum production run applies
- **Cut lengths available per metre - no cutting charge**
- **Longer length rolls available on request**
- Flame retardant, oil & acid resistant
- Upperside Ribbed / Underside Fabric Impression

PART NO	SAFETY STANDARD	TEST VOLTAGE (kV)	WORKING VOLTAGE (kV)	WIDTH (mm)	THICKNESS (mm)	WEIGHT (kg)	STANDARD ROLL LENGTH (m)
642100	IEC61111 Class 0	5	1	1000	3.0	40	10
642120	IEC61111 Class 0	5	1	1200	3.0	48	10
642101	IEC61111 Class 0	5	1	1000	6.0	80	10
642121	IEC61111 Class 0	5	1	1200	6.0	96	10
642102	IEC61111 Class 2	20	17	1000	3.0	40	10
642122	IEC61111 Class 2	20	17	1200	3.0	48	10
642105	IEC61111 Class 4	40	36	1000	4.5	65	10
642125	IEC61111 Class 4	40	36	1200	4.5	78	10
642155	IEC61111 Class 4	40	36	1000	12	215	10

## HV Switchboard Rubber Matting

- Tested to IEC61111
- Maximum working voltage 26.5kV
- Flame Retardant / Oil & Acid Resistant
- Fabric Finish on both sides
- **Cut lengths available per metre - no cutting charge**
- **Longer length rolls available on request**



PART NO	SAFETY STANDARD	TEST VOLTAGE (kV)	WORKING VOLTAGE (kV)	WIDTH (mm)	THICKNESS (mm)	WEIGHT (kg)	STANDARD ROLL LENGTH (m)
642103	IEC61111 Class 3	30	26.5	1000	3.0	45	10
642123	IEC61111 Class 3	30	26.5	1200	3.0	69	10



## HV Switchboard Rubber Matting

- Tested to IEC61111
- Maximum working voltage 26.5kV
- Standard colour black
- Flame Retardant / Oil & Acid Resistant
- Upperside Corrugated / Underside Fabric Impression
- **Cut lengths available per metre - no cutting charge**

PART NO	SAFETY STANDARD	TEST VOLTAGE (kV)	WORKING VOLTAGE (kV)	WIDTH (mm)	THICKNESS (mm)	WEIGHT (kg)	STANDARD ROLL LENGTH (m)
642133	IEC61111 Class 3	30	26.5	1300	5.0	83	10

## Cable Guard

- Protection of vertical/horizontal cable runs on wooden poles, fences and walls
- Manufactured from HDPE which provides excellent protection against vandalism and accidental vehicle contact
- Can also be used to protect other utility supplies on walls i.e. gas, oil, water
- Supplied with screw fixing holes for easy installation
- Lightweight and easily transported
- With UV and flame retardant additives
- Others colours and sizes available on request (min. order quantity apply)



PART NO	DESCRIPTION	DIMENSIONS	WEIGHT (g)
C18666	Cableguard HDPE Black	Ø 19mm x 3.0m	790
C18680	Cableguard HDPE Black	Ø 25mm x 3.0m	840
C18703	Cableguard HDPE Black	Ø 38mm x 3.0m	1140
C18727	Cableguard HDPE Black	Ø 50mm x 3.0m	1420
C18741	Cableguard HDPE Black	Ø 64mm x 3.0m	1600
C18765	Cableguard HDPE Black	Ø 80mm x 3.0m	2000
C18789	Cableguard PVC Black	Ø 100mm x 3.0m	4700
C18790	Cableguard PVC Black	Ø 100mm x 3.3m	5200

## Electrical Safety Gloves

- The ergonomic shape of the glove and its slightly powdered interior makes it easy the donning and doffing
- The natural rubber provides dielectric properties, while our technique and expertise allow us to make gloves as thin as possible in order to offer the maximum level of the dexterity to the users
- Gloves are tested and certified to EN 60903 and IEC 60903



CLASS	LENGTH	THICKNESS	AVAILABLE SIZES	MAX. USAGE VOLTAGE [V]	MAX WORKING VOLTAGE
00	360mm	<1.1mm	6-12	500	2500
0	360mm	<1.6mm	6-12	1000	5000
1	360mm	<2.1mm	7-12	7500	10,000
2	360mm	<2.9mm	7-12	17000	20,000
3	360mm	<3.5mm	8-12	26,500	30,000
4	410mm	<4.2mm	8-12	36,000	40,000

CLASS	LENGTH	THICKNESS	AVAILABLE SIZES	MAX. USAGE VOLTAGE [V]	MAX WORKING VOLTAGE
00	360mm	<2.4mm	6-12	500	2500
0	360mm	<2.9mm	6-12	1000	5000
1	360mm	<3.4mm	7-12	7500	10,000
2	360mm	<3.9mm	7-12	17000	20,000
3	360mm	<4.2mm	8-12	26,500	30,000
4	410mm	<4.8mm	8-12	36,000	40,000

# MACHINE & SITE SAFETY • SAFETY SIGNAGE & LABELS



## Industrial

• Semi rigid self-adhesive PVC



ERS0151ES



ERS0158ES



ERS0178ES



ERS0255ES

PART NO	SIZE (mm)
ERS0151ES	100x100 (6 labels) on 200x300 sheet
ERS0158ES	200x300
ERS0178ES	200x300
ERS0255ES	200x300
ERS0550ES	200x300
ERS0600ES	200x300
ERS0605ES	200x300
ERS0608ES	200x300
ERS0622ES	200x300
ERS1350ES	200x300
ERS1400ES	200x300
ERS1451ES	200x300
ERS1362ES	200x300
ERS1363ES	200x300
ERS1360ES	200x300
ERS1361ES	200x300
ERS1523ES	300x200
ERS1513ES	300x200
ERS1502ES	300x200
ERS1503ES	300x200
ERS1504ES	300x200
ERS1505ES	300x200
ERS1506ES	300x200
ERS1507ES	300x200
ERS1580ES	300x200
ERS1581ES	300x200
ERS1583ES	300x200
ERS1584ES	300x200



ERS0550ES



ERS0600ES



ERS0605ES



ERS0608ES



ERS0622ES



ERS1350ES



ERS1400ES



ERS1451ES



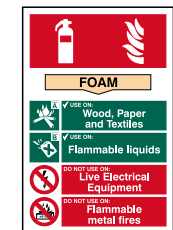
ERS1362ES



ERS1363ES



ERS1360ES



ERS1361ES



ERS1523ES



ERS1513ES



ERS1502ES



ERS1503ES



ERS1504ES



ERS1505ES



ERS1506ES



ERS1507ES

## Photoluminescent

In the event of a fire or emergency, the visibility of standard emergency signs can often be impaired by poor lighting, smoke or even lack of power. In these cases our Photoluminescent signs can provide an effective solution.



ERS1580ES



ERS1581ES



ERS1583ES



ERS1584ES

## In Light



## In Darkness



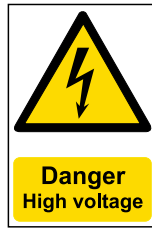


- Semi rigid self-adhesive PVC

PART NO	SIZE (mm)
ERS0750ES	200x300
ERS0761ES	200x300
ERS0788ES	200x300
ERS0791ES	200x300
ERS0792ES	150x200
ERS0789ES	150x200
ERS0793ES	100x150
ERS0790ES	100x150
ERS0803ES	100x100
ERS1200ES	200x300
ERS1301ES	200x300
ERS1311ES	200x300



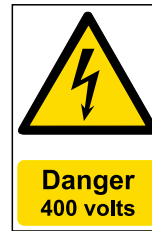
ERS0750ES



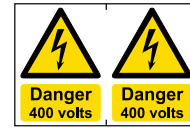
ERS0761ES



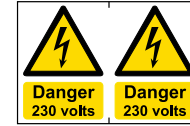
ERS0788ES



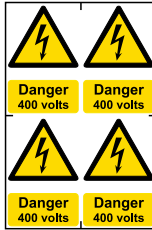
ERS0791ES



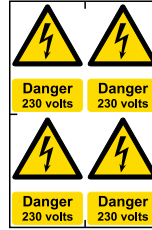
ERS0792ES



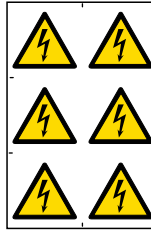
ERS0789ES



ERS0793ES



ERS0790ES



ERS0803ES



ERS1200ES



ERS1301ES



ERS1311ES

## Site Safety Notice

- 3mm Foamex
- 800x600mm

PART NO
ERS4550ES



## Build Your Own - Site Safety Notice

With the numerous dangers found on modern construction site, it has become harder and harder for a Site Safety Manager to effectively demonstrate, through the use of safety signs, the relevant safety procedures and methods of work which is a lawful requirement. These signs have been specifically designed to provide Safety Managers with the information they need to display on one sign. We can also create a bespoke Site Safety Sign with specific logos or company branding.



- RPVC (650 x 650mm)
- Contains 12 different 300 x 100mm signs, use 8 to create your perfect Site Safety Notice.



## Need a Site Survey?

By law the correct safety signage should be displayed in the appropriate locations and to current legal standards. A Site Survey is advisable if you are unsure of your legal obligations or have been notified by a regulatory body that your current signage is not adequate.

- Site Surveys identify the signs you need, including size, positioning and materials, as well as any bespoke sign manufacturing service needs.
- Site Surveys also provide advice on ensuring the safety of you and your staff, including Lockout Tagout and Asset Management.

To find out how Site Surveys can help your business please contact our sales team.

## Tagging Systems

Our tagging systems are an integral part of a robust safety and risk assessment policy, providing a clear record of inspections in accordance with the specific equipment guidelines. Our tags detail who has performed an inspection, at what interval and if any problems have been found. Should an incident occur then evidence can be provided detailing the inspection routine.



### Industrial

## Scaffold Tagging System

- Scaffold must be inspected in the following conditions:
  - Following initial erection
  - Exposure to adverse weather
  - Conditions that could affect its strength or stability
  - Following substantial alteration (addition or subtraction)
  - At regular intervals not exceeding
    - 7 days from previous inspection
- Tag size: 75 x 180mm
- Material: Polypropylene

PART NO	DESCRIPTION
ERSTG01-1	Single Insert (Scaffold)
ERSTG0110	Pack Of 10 Inserts
ERSTG0150	Pack Of 50 Inserts
ERSTG01KIT	Kit (1 Holder, 2 Inserts, 1 Pen)
ERSTG01BOX	Box (10 Holder, 20 Inserts, 2 Pens)



## Tower Scaffold Tagging System

- The Tower Scaffold Safety Tag provides an essential platform for entering and storing essential safety information, including movements and safe weight tolerances
- Designed for use with the ClawTag holder, these tags can be fixed to the scaffold after erection without needing to dismantle part of the structure
- Essential safety and audit information can be referenced with the storage of these inserts after job completion
- Tag size: 75 x 180mm
- Material: Polypropylene

PART NO	DESCRIPTION
ERSTG12-1	Single Insert (Tower)
ERSTG1210	Pack Of 10 Inserts
ERSTG1250	Pack Of 50 Inserts
ERSTG12KIT	Kit (1 Holder, 2 Inserts, 1 Pen)
ERSTG13KIT	Tagging System Safety Kit (1 Holder, 1 Scaffold Insert, 1 Tower Insert, 1 Pen)
ERSTG12BOX	Box (10 Holder, 20 Inserts, 2 Pens)



## Ladder Tagging System

- All ladders should be checked daily and prior to use for any damage, faults or wear and tear
- In addition they should be inspected at defined intervals as part of a risk assessment programme
- Use these inserts to manage the identification, safety, maintenance of ladders and help conform to the Work at Height Regulations 2005
- The Asset Tag holder should be permanently fixed to the ladder in a suitable safe place
- Perform an inspection of the ladder (a checklist is printed on the reverse) and record the result on the tag

- If the ladder fails the inspection remove insert and inform a supervisor
- Tag size: 50 x 181mm
- Material: Polypropylene

PART NO	DESCRIPTION
ERSTG04-1	Single Insert (Ladder Safety)
ERSTG0410	Pack Of 10 Inserts
ERSTG0450	Pack Of 50 Inserts
ERSTG04KIT	Kit (1 Holder, 2 Inserts, 1 Pen)
ERSTG04BOX	Box (10 Holder, 20 Inserts, 2 Pens)





Industrial

## Danger 230 / 400V Adhesive Signage



PART NO.	DESCRIPTION	QUANTITY
ERSLAB9	Danger 230 Volts (Self Adhesive) 75 x 25mm	250 roll
ERSLAB15	Danger 230 Volts (Rigid Adhesive) 75 x 25mm	5 pack
ERSLAB16	Danger 230 Volts (Self Adhesive) 75 x 75mm	5 pack
ERSLAB17	Danger 230 Volts (Self Adhesive) 75 x 75mm	5 pack
ERSLAB18	Danger 230 Volts (Rigid Adhesive) 75 x 75mm	5 pack
ERSLAB19	Danger 230 Volts (Engraved) 75 x 25mm	5 pack

PART NO.	DESCRIPTION	QUANTITY
ERSLAB10	Danger 400 Volts (Self Adhesive) 75 x 25mm	250 roll
ERSLAB20	Danger 400 Volts (Engraved) 75 x 25mm	5 pack
ERSLAB21	Danger 400 Volts (Self Adhesive) 75 x 25mm	5 pack
ERSLAB22	Danger 400 Volts (Rigid Adhesive) 75 x 25mm	5 pack
ERSLAB23	Danger 400 Volts (Rigid Adhesive) 75 x 75mm	5 pack
ERSLAB24	Danger 400 Volts (Self Adhesive) 75 x 75mm	5 pack

## Warning More Than One Point of Isolation

- Rigid adhesive
- 75 x 75mm
- 5 Pack



PART NO
ERSLAB28

## Harmonised Cable Notice

- Self adhesive
- 75 x 75mm
- 5 Pack



PART NO
ERSLAB32

## Warning Signs

PART NO.	DESCRIPTION
ERSLAB35	Warning Electrician Working (Rigid PVC) 148 x 210mm
ERSLAB36	Danger 400 Volts (Rigid PVC) 148 x 210mm



## PV Array / Solar Panel Various

- Self adhesive
- Various sizes
- 5 Pack



PART NO
ERSLAB33

## Warning Danger Live DC Cables

- Rigid PVC
- 75 x 20mm
- 10 Pack

PART NO
ERSLAB34







Industrial

## Warning Isolate Elsewhere

• Self adhesive



PART NO.	DESCRIPTION	QUANTITY
ERSLAB13	75 x 25mm	250 Roll
ERSLAB27	75 x 75mm	5 Pack

## Important Periodic Inspection

• Self adhesive



PART NO.	DESCRIPTION	QUANTITY
ERSLAB11	150 x 75mm	100 roll
ERSLAB29	150 x 75mm	5 Pack

## Pass Test Label

• Self laminating



PART NO.	DESCRIPTION	QUANTITY
ERSLAB7	35 x 15mm	250 roll
ERSLAB8	42.5 x 32.5mm	250 roll

## Pass Test Label

• Self adhesive



PART NO.	DESCRIPTION	QUANTITY
ERSLAB1	50 x 15mm	50 roll
ERSLAB4	50 x 35mm	50 roll
ERSLAB6	50 x 15mm	250 roll
ERSLAB5	50 x 35mm	250 roll

## Important RCD Test Label

• Self adhesive



PART NO.	DESCRIPTION	QUANTITY
ERSLAB14	75 x 75mm	100 roll
ERSLAB30	75 x 75mm	5 Pack

## Safety Electrical Connection - Do Not Remove

PART NO.	DESCRIPTION	QUANTITY
ERSLAB25	Rigid adhesive, 75 x 25mm	5 Pack
ERSLAB26	Self adhesive, 75 x 25mm	5 Pack



## Caution Mixed Cable Notice

• Self adhesive



PART NO.	DESCRIPTION	QUANTITY
ERSLAB12	75 x 75mm	100 roll
ERSLAB31	75 x 75mm	5 Pack

## Fail Test Label

• Self adhesive



PART NO.	DESCRIPTION	QUANTITY
ERSLAB2	50 x 15mm	50 roll
ERSLAB3	50 x 35mm	50 roll



**TORNADO**  
GLOVES

## Hand Protection

Please refer to product description for EN388 ratings

### Contour Air Blue

- CPU Technology ensures comfort and hand health
- EN388 2016: 2110X
- Fine construction for precision handling
- Bi-polymer coating provides a 'second skin'
- Lint free for zero contamination

PART NO.	SIZE
CON1A-8	8
CON1A-9	9
CON1A-10	10



### Contour Avenger

- EN388 2016: 4131X
- Excellent wet and dry grip
- Excellent comfort and dexterity
- Abrasion resistant
- Anti-bacterial technology for hand hygiene

PART NO.	SIZE
CON1AV-8	8
CON1AV-9	9
CON1AV-10	10



### Quantum CT

- EN388 2016: 4343B
- Cushion Technology for comfort
- CPU Technology for hand health
- Anti-bacterial Technology for hand hygiene
- Good cut and abrasion resistance

PART NO.	SIZE
QUACT-8	8
QUACT-9	9

PART NO.	SIZE
QUACT-10	10



### Optic Viz 1

- EN388 2016: 4131X
- High Visibility
- Superior abrasion resistance
- Excellent grip
- Excellent comfort and dexterity

PART NO.	SIZE
OVZ1-8	8
OVZ1-10	10



### Aura

- EN388 2016: 4X44F
- Highest possible cut and abrasion resistance
- Leather palm and 'Sharp-Shield' ballistic reinforcement
- Superior wet and dry grip

PART NO.	SIZE
AUR01-8	8
AUR01-9	9
AUR01-10	10



### Electroflex 5 FTR

- EN388 2016: 4X43D
- Maximum abrasion resistance
- Superior cut resistance
- 'Sharp-Shield' ballistic thumb / forefinger reinforcement

PART NO.	SIZE
TEF5FTR-8	8
TEF5FTR-9	9
TEF5FTR-10	10



### Oil-Teq 1

- EN388 2016: 4131X
- Oil and liquid repellent
- Maximum abrasion resistance
- Excellent comfort and dexterity

PART NO.	SIZE
OIL1-8	8
OIL1-9	9
OIL1-10	10



### Oil-Teq 5

- EN388 2016: 4X44C
- Superior cut resistance
- Oil and liquid repellent
- Maximum abrasion resistance
- Excellent comfort and dexterity

PART NO.	SIZE
OIL5-8	8
OIL5-9	9
OIL5-10	10



**FREE SITE SURVEYS AVAILABLE ON REQUEST HELPING TO SPECIFY THE CORRECT GLOVE FOR THE CORRECT APPLICATION**  
CONTACT YOUR LOCAL YESSS BRANCH



# MACHINE & SITE SAFETY • PPE

Lifestyle photography ©Bollé Safety – F.Bourcier



**bolle**  
SAFETY

## Eye & Face Protection



PART NO.	DESCRIPTION
CONTPSI	Clear PC lens - Sports temples with TIPGRIP



PART NO.	DESCRIPTION
CONTPSF	Smoke PC lens - Sports temples with TIPGRIP



PART NO.	DESCRIPTION
TRYOPSF	Smoke PC lens



PART NO.	DESCRIPTION
RUSHPPSI	Clear PC lens - Bi-material PC



PART NO.	DESCRIPTION
TRACPSI	Clear PC lens - Goggle with strap



PART NO.	DESCRIPTION
SILPCSP	CSP PC lens - Flex temples

### All Inclusive Prescription Pack

- 1) Take the pack to your local optician (It includes everything you need)
- 2) Choose your frame (25 styles to pick from)
- 3) Your optician will order them and tell you when they are ready (excl. eye test fee)

**ASK IN  
BRANCH**







## Stealth™ 16g

- Stealth™ 16g is the world's lightest safety eyewear, weighing just 16g
- Next generation ultra-thin and ultra-strong optically perfect lenses moulded using the latest technology to deliver a thinner lens that meets the EN166 1.F requirements



PART NO.	DESCRIPTION
ASA920-161-300	Stealth™ 16g - Clear K Rated
ASA920-163-000	Stealth™ 16g - Smoke K Rated

## Martcare® Faceshield with 20cm Polycarb Visor

- Browguard with grey/unbound polycarbonate visor and elasticated headband for comfort
- Conforms to EN 166.1.B.3.9



PART NO
AFM061-230-400

## Shape™ - Polycarbonate Visor with Ratchet Headband

- The safety faceshield SHAPE is compact, comfortable and lightweight
- Its moulded polycarbonate visor provides a superior optical quality with an unlimited field of vision
- Class 1 optical quality
- Wide field of vision
- Adjustable headband
- Compatible with prescription glasses



PART NO
5SHA20C

## EVO® Surefit™ Inter and Sonis® Visor Carrier & 20cm Visor - EVO® Range

- Surefit visor carrier to fit EVO® range of safety helmets
- Compatible with Sonis® Helmet Mounted range and the InterGP/EX helmet mounted ear defender range



PART NO
ANK060-230-000

## EVO® Surefit™ Inter and Sonis® Helmet Mounted Visor Carrier comes with 20cm Electric Arc Polycarb Visor

- EVO® Surefit Electric Arc Visor & Carrier
- This visor and carrier is compatible with JSP's Evolution® range of safety helmets and is suitable to fit JSP's Inter / Sonis® helmet mounted ear defenders



PART NO
ANK310-230-000



## Head Protection

### EVO2® Safety Helmet with Slip Ratchet

- The EVO2® Comfort Plus™ helmet combines a super strong shell for superior all day protection in the widest range of environments, with the comfort benefits of the new Evolution® 3D Adjustment™ harness system
- Packed full of the latest protection technology and features such as the Evolution® 3D Adjustment™ harness system and the unique OneTouch™ Slip Ratchet, which can be adjusted using one hand in a single swift movement

PART NO.	DESCRIPTION
AJF030-000-100	EVO@2 Safety Helmet with Slip Ratchet - White - Vented
AJF030-000-200	EVO@2 Safety Helmet with Slip Ratchet - Yellow - Vented
AJF030-000-500	EVO@2 Safety Helmet with Slip Ratchet - Blue - Vented
AJF030-000-800	EVO@2 Safety Helmet with Slip Ratchet - Orange - Vented
AJF030-001-100	EVO@2 Safety Helmet with Slip Ratchet - Black - Vented



### Hardcap A1+™ 5cm Short Peak

- The new HardCap A1+™ is another major innovation from JSP in head protection design
- Designed to exceed the most recent standards, EN812:1997+2001, years of thought and design iterations have been undertaken to develop a product that is unrivalled in both performance and style
- Sleek and low profile, it's almost impossible to distinguish from a standard 'high street' baseball cap

PART NO.	DESCRIPTION
ABS000-001-100	Hardcap A1+™ 5cm Short Peak - Black
ABS000-002-100	Hardcap A1+™ 5cm Short Peak - Navy



### Hardcap Aerolite® Short Peak

- Cool Airflow
- Completely Lightweight
- Clean Odourless
- Quick Drying
- Side Reflection
- Repels Water
- Maintainable



PART NO.	DESCRIPTION
AAF000-001-100	Hardcap Aerolite® Short Peak Black
AAF000-002-100	Hardcap Aerolite® Short Peak Navy

### Surefit™ Thermal Safety Helmet Liner Medium/ Large (Black) (JSP Logo)

- "Surefit™ Thermal Helmet Liner
- Thermal insulation
- Fully compatible
- Convenient & Hygienic

PART NO
AJS260-000-100





## Respiratory Protection

### Force™ 8 Half-Mask with PressToCheck™ P3 Filters

- The Force™ 8 twin cartridge half mask with Typhoon™ valve offers superior low breathing resistance and a 4-point suspension harness with quick release buckles
- The mask is made with a durable thermoplastic rubber offering a superior fit to most face shapes
- The mask is ready fitted with low profile P3 Force™ 8 filters, providing filtering protection against particulates.



PART NO  
BHT0A3-0L5-N00

### PressToCheck™ P3 Dust Filters - Set of 2

- With Press to Check filters you can instantly check that you have the correct seal, every time you don your mask before entering a hazard zone.
- High efficiency dust, less chance of damage from foreign objects, resistance to clogging from very fine dusts



PART NO  
BMN990-001-700

### Medium Large SpringFit™ Disposable Dust Mask 436ML FFP3 with Typhoon Valve and Nuisance Carbon Layer

- The unique Typhoon™ valve has been designed to reduce breathing resistance, heat and moisture build-up
- The valve is unaffected by any moisture, and therefore can be used with the same performance under very low temperatures (-40°C tested)



PART NO  
BGA802-206-N00

## Hearing Protection

### Sonis® Compact Ear Defenders

- Orange – medium performance
  - Small / compact cup 107-112db
- Suitable for:
- Substantial industrial noise
  - Construction & agricultural machinery
  - Roadworks
  - Forestry
  - Engineering



PART NO  
AEB030-0AY-000

## Height Safety

### Spartan™ Restraint Kit

- 1-Point Spartan™ Harness (FAR0301), conforms to EN 361:2002
- 1.8m fixed length lanyard, conforms to EN 354:2010
- JSP® woven draw-string bag



PART NO  
FAR1101





# ENCLOSURES & VENTILATION

- 153 Plastic Enclosures
- 156 Steel & Stainless Enclosures
- 157 Steel & ABS Enclosures
- 158 Standard Walk-in GRP Enclosures
- 159 GRP Cabinets
- 160 Fans & Filters
- 168 Cooling Units



**Industrial**



## Adaptable IP67 Plastic Box with Transparent Lid

- IP67 rated ABS boxes
- Quick turn screws
- Hinged lid
- Mounting plate (to be ordered separately)

PART NO	DIMENSIONS (H x W x D)
ERS520158C	200 x 155 x 80mm
ERS5201514C	200 x 155 x 140mm
ERS526219C	260 x 210 x 95mm
ERS5262116C	260 x 210 x 160mm
ERS5322413C	320 x 240 x 135mm
ERS5322418C	320 x 240 x 180mm
ERS5403013C	400 x 300 x 135mm

## Mounting Plates

PART NO	DIMENSIONS (H x W)
ERSM2015	200 x 155mm
ERSM2621	260 x 210mm
ERSM3224	320 x 240mm
ERSM4030	400 x 300mm

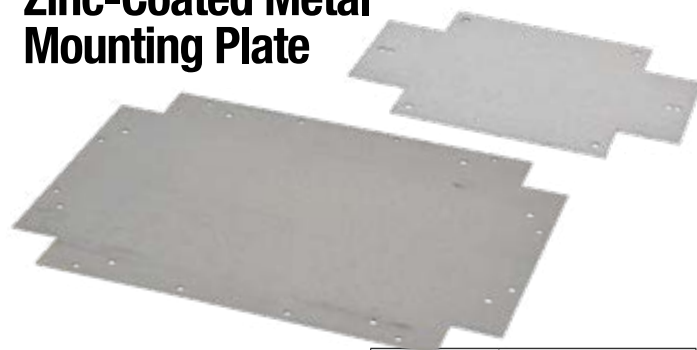
## IP66 Plastic Box Enclosures

- Installation temperature: -15°C to 60°C
- Colour: RAL7035
- In conformity with IEC 60670 - CEI24-48 standards
- Fire resistance: Glow wire test 750°C



PART NO	DIMENSIONS (H x W x D)	MOUNTING PLATE TO SUIT
ERSB100	100 x 100 x 50mm	-
ERSB123	123 x 75 x 50mm	-
ERSB150	150 x 110 x 70mm	-
ERSB190	190 x 145 x 70mm	ERS190X145
ERSB243	243 x 190 x 90mm	ERS243X190
ERSB310	310 x 230 x 115mm	ERS310X230
ERSB380	380 x 300 x 120mm	ERS380X300
ERSB460	460 x 380 x 120mm	ERS460X380
ERSB150D	150 x 110 x 115mm	-
ERSB190D	190 x 145 x 135mm	ERS190X145
ERSB243D	243 x 190 x 155mm	ERS243X190
ERSB310D	310 x 230 x 160mm	ERS310X230
ERSB380D	380 x 300 x 180mm	ERS380X300
ERSB460D	460 x 380 x 182mm	ERS460X380

## Zinc-Coated Metal Mounting Plate



- Mounting plates for IP66 Plastic Box Enclosures only (see above)

PART NO	DIMENSIONS (W x H)
ERS190X145	190 x 145mm
ERS243X190	243 x 190mm
ERS310X230	310 x 230mm
ERS380X300	380 x 300mm
ERS460X380	460 x 380mm



**Industrial**

## Plastic Module Box Enclosures

- Installation temperature: -15°C to 60°C
- Colour: RAL7035
- In conformity with IEC 60670 - CEI24-48 standards
- Fire resistance: Glow wire test 750°C

PART NO	DESCRIPTION	DIMENSION (H x W x D)
ERSM2	2 mod, IP40	130 x 47 x 63mm
ERSM4	4 mod, IP40	130 x 87 x 63mm
ERSCU4	3/5 mod, IP65 with flap	120 x 160 x 90mm
ERSCU8	4/8 mod, IP65 with flap	200 x 160 x 90mm



ERSCU4



ERSCU8



ERSM2



ERSM4

## IP44 Plastic Adaptable Boxes with Stepped Glands

- Installation temperature: -15°C to 60°C
- Colour: RAL7035
- In conformity with IEC 60670 - CEI24-48 standards
- Fire resistance: Glow wire test 750°C

PART NO	SHAPE	DIMENSIONS
ERSR65SG	Round	Ø:65 x D:40mm
ERSR80SG	Round	Ø:80 x D:40mm
ERSB80SG	Square	W:80 x L:80 x D:40mm
ERSB100SG	Square	W:100 x L:100 x D:50mm



## IP65 Plastic Adaptable Boxes with Membrane Glands

- Installation temperature: -15°C to 60°C
- Colour: RAL7035
- In conformity with IEC 60670 - CEI24-48 standards
- Fire resistance: Glow wire test 750°C

PART NO	SHAPE	DIMENSIONS
ERSR65MG	Round	Ø:65 x D:40mm
ERSR80MG	Round	Ø:80 x D:40mm
ERSB80MG	Square	W:80 x L:80 x D:40mm
ERSB94MG	Square	W:94 x L:94 x D:40mm





## IP66 Glass Reinforced Polyester (GRP) Enclosure

- RAL7035
- Quarter turn double bar locks
- Glazed versions available in same sizes

PART NO	HEIGHT (mm)	WIDTH (mm)	DEPTH (mm)	WEIGHT (KG)
BRES-325	300	250	140	1.93
BRES-43	400	300	200	3.60
BRES-44	400	400	200	4.35
BRES-54	500	400	200	5.25
BRES-64	600	400	230	7.13
BRES-65	600	500	230	7.93
BRES-83	800	300	230	6.40
BRES-86	800	600	300	12.65



## 2mm Metallic Back Plate

PART NO	FOR USE WITH
PBM-325	BRES-325
PBM-43	BRES-43
PBM-44	BRES-44
PBM-54	BRES-54

PART NO	FOR USE WITH
PBM-64	BRES-64
PBM-65	BRES-65
PBM-83	BRES-83
PBM-86	BRES-86

## Accessories

PART NO	FOR USE WITH
CML-12	Lock with manual handle and key
OFM-14	Wall Mounting Brackets



## IP65 Boards

- Includes key lock (not on 3902-TTBY), mounting brackets, earth / neutral terminals



3902-TTBY



3904-TTBY



3908-TTBY



3912-TTBY

PART NO	MODULES
3902-TTBY	4
3904-TTBY	4
3908-TTBY	8
3912-TTBY	12

## IP65 Boards

- Includes 1 x 18/36 Way Terminal Block, key lock, mounting brackets, earth / neutral terminals



39018-TTBY



39036-TTBY



39054-TTBY



39072-TTBY

PART NO	MODULES
39018-TTBY	18
39036-TTBY	36
39054-TTBY	54
39072-TTBY	72



## Industrial

### Portrait Epoxy Coated Strong Steel Enclosures (\*IP65)



ERSKEYLOCK

ERSKEYSPARE

ERSBRACKET

#### Portrait Epoxy Coated Strong Steel Enclosures (\*IP65)

RAL 7035 / 1.2mm thick steel / External dimensions shown / Earth studs included / Top and bottom gland plates / Galvanised back plate included \*IP65 when fully sealed

#### Enclosure Sizes with 1 lock

PART NO	DIMENSIONS (H x W x D)
ERS302515	300 x 250 x 150mm
ERS303015	300 x 300 x 150mm
ERS303020	300 x 300 x 200mm
ERS403015	400 x 300 x 150mm
ERS403020	400 x 300 x 200mm
ERS403025	400 x 300 x 250mm
ERS404015	400 x 400 x 150mm
ERS404020	400 x 400 x 200mm
ERS504020	500 x 400 x 200mm
ERS504025	500 x 400 x 250mm

#### Enclosure Sizes with 2 locks

PART NO	DIMENSIONS (H x W x D)
ERS505025	500 x 500 x 250mm
ERS604020	600 x 400 x 200mm
ERS604030	600 x 400 x 300mm
ERS604040	600 x 400 x 400mm
ERS605020	600 x 500 x 200mm
ERS605025	600 x 500 x 250mm
ERS605030	600 x 500 x 300mm
ERS606020	600 x 600 x 200mm
ERS606025	600 x 600 x 250mm
ERS705020	700 x 500 x 200mm
ERS705025	700 x 500 x 250mm
ERS705030	700 x 500 x 300mm
ERS804030	800 x 400 x 300mm
ERS806020	800 x 600 x 200mm
ERS806030	800 x 600 x 300mm
ERS806040	800 x 600 x 400mm
ERS1006030	1000 x 600 x 300mm
ERS1008030	1000 x 800 x 300mm
ERS1008040	1000 x 800 x 400mm

#### Enclosure Accessories

PART NO	DESCRIPTION
ERSKEYLOCK	Metal Lock and Key (all keys alike) for use with steel and stainless enclosures
ERSKEYSPARE	Spare Key (For use with steel and stainless steel enclosures)
ERSBRACKET	Set of 4 wall mount brackets (steel enclosures only)

#### Enclosure Sizes with 3 locks

PART NO	DIMENSIONS (H x W x D)
ERS1206030	1200 x 600 x 300mm
ERS1208030	1200 x 800 x 300mm
ERS1208040	1200 x 800 x 400mm
ERS12010030	1200 x 1000 x 300mm

### Stainless Steel Enclosures Portrait Stainless Steel Enclosures (\*IP65)



- Grade 304 brushed stainless steel
- Earth studs & galvanised back plate included / \*IP65 when fully sealed

PART NO	DESCRIPTION
ERS302015S	H:300 x W:200 x D:150mm
ERS303015S	H:300 x W:300 x D:150mm
ERS403020S	H:400 x W:300 x D:200mm
ERS404020S	H:400 x W:400 x D:200mm
ERS504020S	H:500 x W:400 x D:200mm
ERS604020S	H:600 x W:400 x D:200mm
ERS606020S	H:600 x W:600 x D:200mm
ERS806030S	H:800 x W:600 x D:300mm
ERS808030S	H:800 x W:800 x D:300mm
ERSKEYLOCK	Metal Lock and Key (all keys alike) for use with steel and stainless enclosures
ERSKEYSPARE	Spare Key (For use with steel and stainless steel enclosures)
ERSBRACKET-S	Set of 4 wall mount brackets (Stainless steel enclosures only)



Industrial

## Strong Steel Terminal Boxes

### Steel Terminal Boxes (\*IP65)



- RAL 7035
- \*IP65 when fully sealed / 1.2mm thick steel
- Complete with earth studs and galvanised back plate as standard

PART NO	DIMENSIONS (H x W x D)
ERSB151580	150 x 150 x 80mm
ERSB151512	150 x 150 x 120mm
ERSB201580	200 x 150 x 80mm
ERSB201512	200 x 150 x 120mm
ERSB202080	200 x 200 x 80mm
ERSB202012	200 x 200 x 120mm
ERSB301512	300 x 150 x 120mm
ERSB302080	300 x 200 x 80mm
ERSB302012	300 x 200 x 120mm

## Landscape Epoxy Coated Strong Steel Enclosures (\*IP65)



- RAL: 7035 / 1.2mm thick steel / External dimensions shown
- Earth studs and top & bottom gland plates included
- Galvanised back plate included / \*IP65 when fully sealed

PART NO	DIMENSIONS (H x W x D)
ERS304020	300 x 400 x 200mm
ERS405020	400 x 500 x 200mm
ERS406020	400 x 600 x 200mm
ERS406030	400 x 600 x 300mm

## Strong Steel Extension Boxes



### Extension Boxes (\*IP65)

- RAL: 7035 / 1.2mm thick steel / \*IP65 when fully sealed
- Extension boxes include earth studs and galvanised back plates

PART NO	DIMENSIONS (H x W x D)
ERSEX204020	200 x 400 x 200mm
ERSEX206020	200 x 600 x 200mm
ERSEX206030	200 x 600 x 300mm

## ABS Enclosures

- Ingress protection: IP65
- Complete with backplate



PART NO	EXTERNAL DIMENSIONS (H x W x D)	INTERNAL DIMENSIONS (H x W x D)	LOCKS
ERSABS282113	280 x 210 x 130mm	235 x 160 x 115mm	1
ERSABS302513	300 x 250 x 130mm	250 x 190 x 108mm	1
ERSABS332513	330 x 250 x 130mm	280 x 190 x 108mm	1
ERSABS352515	350 x 250 x 150mm	300 x 170 x 128mm	1
ERSABS403016	400 x 300 x 165mm	355 x 250 x 150mm	2
ERSABS403019	400 x 300 x 195mm	350 x 240 x 165mm	2
ERSABS503519	500 x 350 x 195mm	450 x 288 x 168mm	2
ERSABS504017	500 x 400 x 175mm	455 x 350 x 150mm	2
ERSABS504024	500 x 400 x 245mm	450 x 340 x 190mm	2
ERSABS604020	600 x 400 x 200mm	550 x 350 x 185mm	2
ERSABS605022	600 x 500 x 220mm	530 x 445 x 185mm	2
ERSABS705024	700 x 500 x 245mm	630 x 450 x 215mm	2
ERSABS806026	800 x 600 x 265mm	725 x 545 x 235mm	3

## ABS Enclosures Key Lock

PART NO
ERSABSKL





# READY FOR IMMEDIATE DISPATCH

The range of GRP electrical cabinets and housings are handmade to the highest quality. They are suitable for housing any electrical, switchgear or pumping equipment. From small meter box cabinets to walk-in housings and large buildings, take a look at our extensive range of 16 standard products plus any size and style bespoke made unit made to your exact specifications.

- High quality handmade product
- Manufactured in the UK
- Finished in British Racing Green (14-C-39) or Grey (10 A 07) other colours also available to order
- UV stabilised external gel coat with semigloss finish
- Half hour fire rated polyester resin
- IP55 Dust and water protection
- Roof rain drip system ensures 100% roof water tightness
- Stainless steel hinges (316 grade)
- Integral bolt down flanges (100mm)
- Cylinder key lockable latch with aluminium pull finger or padlock hasp and staple (other locking mechanisms available)
- Neoprene door seals, resistant to UV and frost
- Encapsulated timber and steel reinforcement
- All doors have 12mm core along with steel reinforcement
- Maintenance free units



PART NO	COLOUR	DIMENSION (W x H x D)
W1-G	Green	2005 x 500 x 2070mm
W1-GREY	Grey	2005 x 500 x 2070mm



PART NO	COLOUR	DIMENSION (W x H x D)
W2-G	Green	2005 x 1000 x 2070mm
W2-GREY	Grey	2005 x 1000 x 2070mm



PART NO	COLOUR	DIMENSION (W x H x D)
W3-G	Green	2005 x 1500 x 2070mm
W3-GREY	Grey	2005 x 1500 x 2070mm



PART NO	COLOUR	DIMENSION (W x H x D)
W4-G	Green	2005 x 2000 x 2070mm
W4-GREY	Grey	2005 x 2000 x 2070mm

## Large Housings Built to Any Bespoke Size

Our Bastion range of GRP Cabinets & Enclosure has endless possibilities. Our talented production team can produce any size of enclosure you could possibly need. With optional extras including venting, hatches, electric packages, heating and much more. Just contact us for details.



# ENCLOSURES & VENTILATION • GRP CABINETS



PART NO	COLOUR	DIMENSION (W x H x D)
<b>S1-G</b>	Green	350 x 210 x 898mm
<b>S1-GREY</b>	Grey	350 x 210 x 898mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>S2-G</b>	Green	465 x 330 x 625mm
<b>S2-GREY</b>	Grey	465 x 330 x 625mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>S3-G</b>	Green	505 x 450 x 1250mm
<b>S3-GREY</b>	Grey	505 x 450 x 1250mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>S4-G</b>	Green	755 x 450 x 1250mm
<b>S4-GREY</b>	Grey	755 x 450 x 1250mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>S5-G</b>	Green	666 x 380 x 930mm
<b>S5-GREY</b>	Grey	666 x 380 x 930mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>S6-G</b>	Green	910 x 365 x 1150mm
<b>S6-GREY</b>	Grey	910 x 365 x 1150mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>S8-G</b>	Green	915 x 595 x 1150mm
<b>S8-GREY</b>	Grey	915 x 595 x 1150mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>D1-G</b>	Green	1005 x 550 x 1250mm
<b>D1-GREY</b>	Grey	1005 x 550 x 1250mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>D2-G</b>	Green	1255 x 550 x 1240mm
<b>D2-GREY</b>	Grey	1255 x 550 x 1240mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>D3-G</b>	Green	1510 x 695 x 1500mm
<b>D3-GREY</b>	Grey	1510 x 695 x 1500mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>D4-G</b>	Green	1760 x 795 x 1675mm
<b>D4-GREY</b>	Grey	1760 x 795 x 1675mm



PART NO	COLOUR	DIMENSION (W x H x D)
<b>D5-G</b>	Green	2010 x 895 x 1675mm
<b>D5-GREY</b>	Grey	2010 x 895 x 1675mm



## Effective Ventilation & Ambient Control for Electrical Cabinets

The Axair Fans range includes full climate control solutions for effective enclosure cooling inside the enclosure or cabinet. Effective thermal management is essential for ensuring the reliability of electronic components within an enclosure.

### Plastic Roof Exhaust Unit

IP24/44/54/55  
Also in metal version  
See page 164



### Pressure Compensation Device

PG29 Fixing System Ø37mm  
IP55



### Filter Fans

5 sizes with/without fan.  
Optionally IP55 and EMC version  
See page 163

### LED Lamp

115/230VAC or multi-voltage  
12/24/48 VDC  
ON/OFF switch or infrared sensor,  
screw or magnetic fixing  
See page 165



### NO-NC Thermostat

Setting range: -10 to +80°C  
°C or °F version  
See page 165

### Compact Fans

a.c./d.c. axial or centrifugal fans,  
also in IP55, all metal and HTR version.  
Several accessories available



### Hygrostat

Setting range: 10-90%RH

### Twin Thermostat

Setting range: -10 to +80°C  
°C or °F version  
See page 177



### Anti-Condensation Heaters

Version with cable, terminal block or ventilated.  
Available in plastic (touch proof) or metal version.  
5-350W  
See page 164



The Fandis range of FPF filter fans by Axair are available in a choice of industry standard sizes both with (filter fan unit) and without fans (exhaust filter) and provide an ingress protection to IP54 using a robust G3 filter media. Filter fans and exhausts provide effective enclosure ventilation to control the internal temperature, protecting and extending the life of expensive electrical components including drives and inverters.



Forced Convection Filter Fan & Exhaust



## FPF Series Filter Fans

PART NO	DESCRIPTION	DIMENSIONS (mm)	FITS CUT-OUT SIZE (mm)	VOLTAGE (V)	FREQUENCY (Hz)	RATED POWER (W)	COMBINED MAX AIR FLOW (m <sup>3</sup> /h)**	FREE AIR MAX AIR FLOW (m <sup>3</sup> /h)**	RATED TEMP. RANGE (°C)
FPF08KU115BR-110	Fan Filter Unit	105 x 105	91.5 x 91.5	115 VAC	50/60	9/7	17/22	23/30	-10 ~ +50
FPF08KU230BR-110	Fan Filter Unit	105 x 105	91.5 x 91.5	230 VAC	50/60	10/8	17/22	23/30	-10 ~ +50
FPF08KUD24BR-110	Fan Filter Unit	105 x 105	91.5 x 91.5	24 VAC	-	3.6	15	28	-10 ~ +50
FPF12KU24BER-110	Fan Filter Unit	150 x 150	124 x 124	24 VAC	50/60	15/16	44/48	57/61	-10 ~ +50
FPF12KU115BER-110	Fan Filter Unit	150 x 150	124 x 124	115 VAC	50/60	20/18	44/48	57/61	-10 ~ +50
FPF12KU230BER-110	Fan Filter Unit	150 x 150	124 x 124	230 VAC	50/60	20/19	44/48	57/61	-10 ~ +50
FPF13KPU115BER-110	Fan Filter Unit	204 x 204	177 x 177	115 VAC	50/60	20/18	85/90	110/120	-10 ~ +50
FPF13KPU230BER-110	Fan Filter Unit	204 x 204	177 x 177	230 VAC	50/60	20/19	85/90	110/120	-10 ~ +50
FPF13KU115BER-110	Fan Filter Unit	204 x 204	177 x 177	115 VAC	50/60	17/15	94/105	120/135	-10 ~ +50
FPF13KU230BER-110	Fan Filter Unit	204 x 204	177 x 177	230 VAC	50/60	17/15	94/105	120/135	-10 ~ +50
FPF15KPU115BER-110	Fan Filter Unit	250 x 250	223 x 223	115 VAC	50/60	20/18	97/108	115/125	-10 ~ +50
FPF15KPU230BER-110	Fan Filter Unit	250 x 250	223 x 223	230 VAC	50/60	20/19	97/108	115/125	-10 ~ +50
FPF15KMU115BER-110	Fan Filter Unit	250 x 250	223 x 223	115 VAC	50/60	17/15	99/115	130/150	-10 ~ +50
FPF15KMU230BER-110	Fan Filter Unit	250 x 250	223 x 223	230 VAC	50/60	17/15	99/115	130/150	-10 ~ +50
FPF15KU115BER-110	Fan Filter Unit	250 x 250	223 x 223	115 VAC	50/60	30/30	170/195	240/270	-10 ~ +50
FPF15KU230BER-110	Fan Filter Unit	250 x 250	223 x 223	230 VAC	50/60	29/29	170/195	240/270	-10 ~ +50
FPF15KGU115BER-120	Fan Filter Unit	250 x 250	223 x 223	115 VAC	50/60	50/64	230/250	360/400	-10 ~ +55
FPF15KGU230BER-120	Fan Filter Unit	250 x 250	223 x 223	230 VAC	50/60	67/87	230/250	360/400	-10 ~ +50
FPF20KU115BER-120	Fan Filter Unit	325 x 325	291 x 291	115 VAC	50/60	50/64	405/448	520/580	-10 ~ +55
FPF20KU230BER-120	Fan Filter Unit	325 x 325	291 x 291	230 VAC	50/60	67/87	405/448	520/580	-10 ~ +50
FPF20KGU115BER-120	Fan Filter Unit	325 x 325	291 x 291	115 VAC	50/60	107/143	430/480	660/745	-10 ~ +55
FPF20KGU230BER-120	Fan Filter Unit	325 x 325	291 x 291	230 VAC	50/60	114/158	430/480	660/745	-10 ~ +55

## FPF Series Exhaust Filters

PART NO	DESCRIPTION	DIMENSIONS (mm)	FITS CUT-OUT SIZE (mm)	RATED TEMP. RANGE (°C)
FPF08KUG-101	Exhaust Filter	105 x 105	91.5 x 91.5	-10 ~ +60
FPF12KUG-100	Exhaust Filter	150 x 150	124 x 124	-10 ~ +60
FPF13KUG-100	Exhaust Filter	204 x 204	177 x 177	-10 ~ +60
FPF15KUG-100	Exhaust Filter	250 x 250	223 x 223	-10 ~ +60
FPF20KUG-100	Exhaust Filter	325 x 325	291 x 291	-10 ~ +60

Axair fan filters are supplied in reverse airflow (exhausts air out) (R) - for standard airflow direction (draws air in) remove the (R) prefix from the code. (\*\*) data with uncertainty of ±15%. Free Air Flow figures - fan operating at free air without an exhaust. Combined Air Flow figures - filter fan and exhaust used together.





Forced Convection Using Roof Fans

The Fandis range of roof exhaust fans by Axair, are commonly used in restricted spaces to dissipate hot air that is extracted from the top of enclosures. These units can be provided with an exhaust for natural convection cooling or forced convection air cooling when provided with a fan.

## Roof Exhaust Fans For Enclosures - T Series

- Larger fan units with a metal structure with (listed) or without fans depending on ventilation needs
- Ingress protected to IP23
- Standard RAL 7035
- Suitable for any plate thickness
- Epoxy painted steel casing

PART NO	VOLTAGE (V)	FREQUENCY (HZ)	RATED POWER (W)	COMBINED MAX AIR FLOW (m³/h)**	NOISE (dB(A))	FREE AIR MAX AIR FLOW (m³/h)**
T19U115B	115 VAC	50/60	58/71	410/430	67.9/71.0	550/590
T19U230B	230 VAC	50/60	62/78	410/430	67.9/71.0	550/590
T22U115B	115 VAC	50/60	130/170	525/550	74.0/75.6	800/850
T22U230B	230 VAC	50/60	125/161	525/550	74.0/75.6	800/850



(\*\*) data with uncertainty of ±15% Free Air Flow figures - roof fan operating alone without an exhaust filter.  
Combined Air Flow figures - combination of a roof fan and PPF15KUG exhaust filter operating together

## Roof Exhaust Fans For Enclosures - TP Series

- Fan units with a plastic structure and aluminium top, with (listed) or without fans depending on ventilation needs
- Ingress protected up to IP55
- Standard RAL 7035
- Suitable for any plate thickness
- Permanent sealing gaskets

PART NO	VOLTAGE (V)	FREQUENCY (HZ)	RATED POWER (W)	COMBINED MAX AIR FLOW (m³/h)**	NOISE (dB(A))	FREE AIR MAX AIR FLOW (m³/h)**
TP19U115B	115 VAC	50/60	62/75	370/420	500/575	24
TP19U115B54	115 VAC	50/60	66/74	330/380	420/490	54
TP19U230B	230 VAC	50/60	67/83	370/420	500/575	24
TP19U230B54	230 VAC	56/60	70/83	330/380	420/490	54



(\*\*) Data with uncertainty of ±15% Free Air Flow figures - roof fan operating alone without an exhaust filter.  
Combined Air Flow figures - combination of a roof fan and PPF15KUG exhaust filter operating together

## IP20 Anti-Condensation Heaters

- A variety of heaters for the thermo regulation and prevention of condensation within electrical cabinets.
- Easy installation with simple snap on fastening.

PART NO	DIMENSIONS H x L x W	HEATING POWER (W)	RATED VOLTAGE RANGE (VAC) 50/60 HZ	WEIGHT (Kg)
HWM045	108 x 85 x 61.5mm	45	110 - 240	0.40
HWM060	108 x 85 x 61.5mm	60	110 - 240	0.40
HWM100	158 x 85 x 61.5mm	100	110 - 240	0.55
HWP045	108 x 85 x 61.5mm	45	110 - 240	0.40
HTM060	138 x 85 x 61.5mm	60	110 - 240	0.45
HTP045	138 x 85 x 61.5mm	45	110 - 240	0.45
HTP060	138 x 85 x 61.5mm	60	110 - 240	0.45
HTP100	188 x 85 x 61.5mm	100	110 - 240	0.60



- HTM - Metallic terminal versions
- HWM - Metallic wired versions
- HTP - Plastic touch safe terminal versions
- HWP - Plastic touch safe wired versions

# Ambient Temperature Control & Protective Accessories For Enclosures

Mechanical thermostats and hygrometers for internal temperature and humidity regulation in electrical enclosures for trouble free operation. Simple mounting with patented snap on fastening to standard DIN



## Mechanical Thermostats & Twin Thermostats

- Normally Closed - For use with enclosure heaters (Red Dial)
- Normally Open - For use with fans (Blue Dial)
- Twin allows for simultaneous control of heating & cooling
- Wide temperature setting range & bi-metallic sensing element

PART NO (°C VERSION)	RATED VOLTAGE (VAC) 50/60Hz	RATED CURRENT (A)	CONTACT CURRENT CARRYING CAPACITY (A)	SETTING RANGE	DIFFERENTIAL (REFERRED TO SET POINT) (K)
TRT-10A230V-NC	12-60 VDC 110-250 VAC	10 (6 *)	15	-10 ~ +80 °C	- 3
TRT2-10A230V-NCNO	12-60 VDC 110-250 VAC	10 (6 *)	15	-10 ~ +80 °C	+ 4 if A5 + 7 if A>5
TRT-10A230V-NO	12-60 VDC 110-250 VAC	10+10	15+15	-10 ~ +80 °C	-3 (NC) / +4 if A5 +7 if A>5 (NO)

## Enclosure LED Lights

- FLL Energy saving LED lamps with ON/OFF switch or PIR sensor to detect movement. Available with standard screw-in or alternatively, magnetic fastening for easy positioning (Code FLL-2MA).

PART NO	LENGTH (mm)	RATED VOLTAGE RANGE (VAC)	RATED FREQUENCY (Hz)	POWER (W)	LED NUMBER	LED COLOUR	DESCRIPTION
FLL-300565U-IR	356	115-230	50/60	5.0/5.0	40	7100K	PIR sensor
FLL-300565U-S	356	115-230	50/60	5.0/5.0	40	7100K	ON/OFF switch



## Stainless Steel Protective Cover

- Ingress Protection to IP56
- Stainless Steel support of 0.6mm to apply between base & clips
- AISI Stainless Steel cover of 1mm with bayonet joint on support



PART NO	DESCRIPTION
SSC-08	Steel cover for FPF08 and FF08
SSC-12	Steel cover for FPF12 and FF12
SSC-13	Steel cover for FPF13 and FF13
SSC-15	Steel cover for FPF15 and FF15
SSC-20	Steel cover for FPF20 and FF20

## A4 Maintenance Document Holder

- Standard RAL 7035
- Material PC/ABS alloy
- Prevents disruption of internal enclosure airflow



PART NO
TPD-A4





## Commercial Kitchen Ventilation

Commercial kitchens demand high quality extraction and exhaust fans to withstand the rigours of continuous contact with hot, greasy air. In such environments, air change is supplied by a mechanical ventilation system. This is usually via an extract canopy situated above the appliances that is exhausted via a roof fan or horizontally through ducting. Sufficient outdoor air must be provided through supply fans to replace the extract air to avoid creating a vacuum. Therefore, a combination of supply air fans and extraction fans are required.

### Supply Air



ANDB CASED AXIAL FANS



EQ & DQ PLATE AXIAL FANS

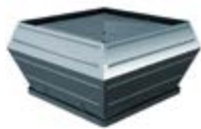


BOX BD CENTRIFUGAL FANS



BOX RL CENTRIFUGAL FANS

### Roof Extraction (Outside)



DV ROOF FANS



DH ROOF FANS



CTH3 ROOF FANS



Casals CTH4 ROOF FANS

### Extraction (Inside)



EHND & EHNE EXTRACT FANS



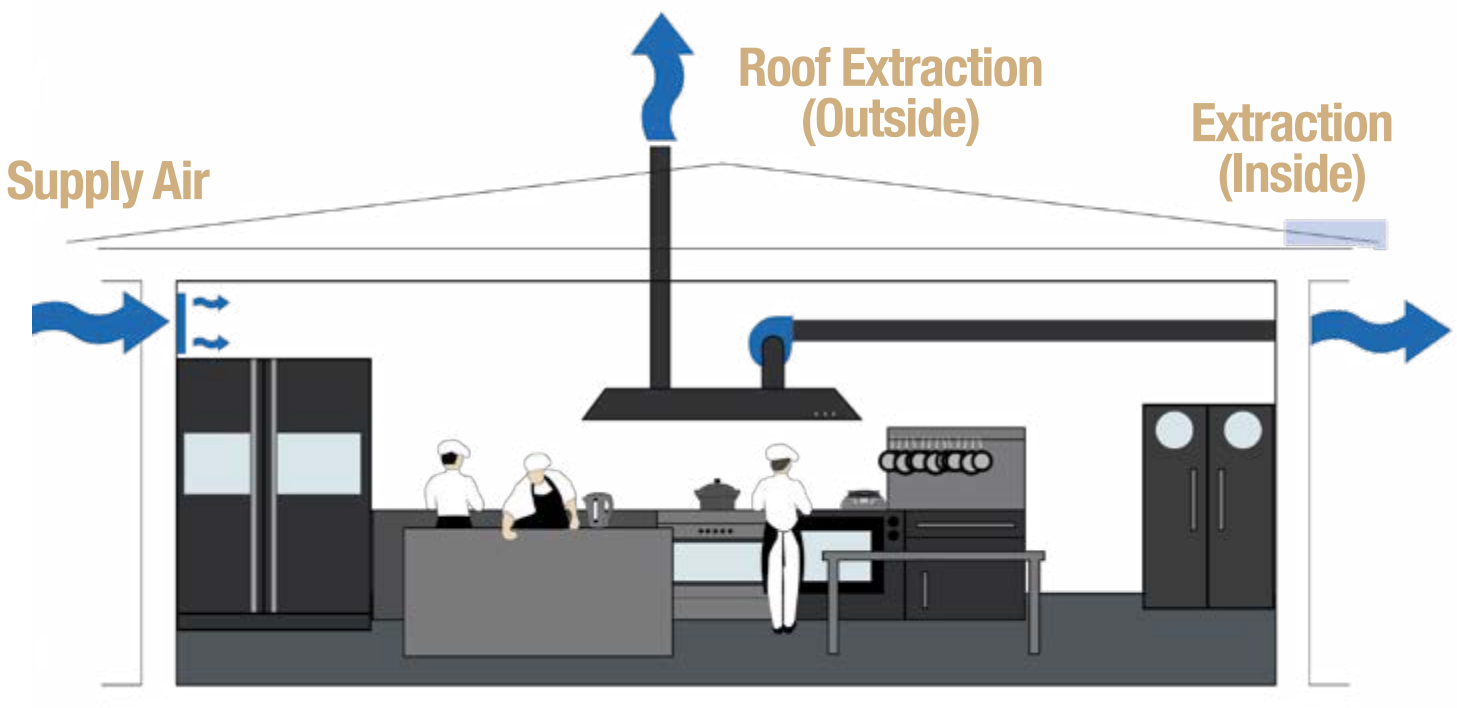
KB KITCHEN EXTRACT FANS



UNOBOX ME EXTRACT FANS



IGNEO CENTRIFUGAL FANS



# Industrial Ventilation

Industrial settings present a number of ventilation challenges. Axair offer fans for almost every area of factories and industrial plants, from general warehouse ventilation to specialised corrosive fume extraction, material handling or explosion-proof air movement. Axair's high temperature fans can handle air and gases up to 350°C. ATEX certified fans are available for zones 1, 2 and 22.

## Corrosive Fume Extraction

S POLYPROPYLENE FANS



MDI CENTRIFUGAL FANS

ST POLYPROPYLENE FANS



## Material Handling

MA P/R



MB P/R



MBZM P/R



AA P/R

## Atex Certified Fans

HMX CASED AXIAL FANS



NIMAX CENTRIFUGAL FANS

DRAD CENTRIFUGAL FANS



DQ PLATE AXIAL FANS

## High Temperature Fans



CLIBOS CENTRIFUGAL FANS



MBC CENTRIFUGAL FANS



MRBC CENTRIFUGAL FANS



BOX RL CENTRIFUGAL FANS

## Warehouse Ventilation



EQ & DQ PLATE AXIAL FANS



CTH3 ROOF FANS

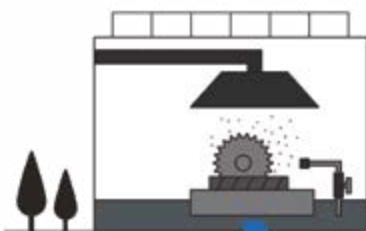


ANDB CASED AXIAL FANS



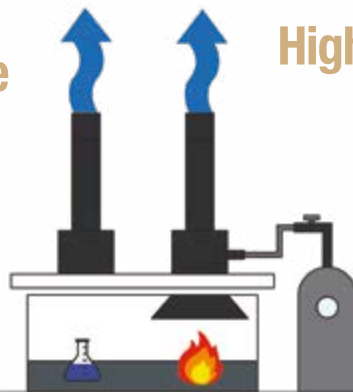
DH ROOF FANS

## Corrosive Fume Extraction



## Material Handling

## High Temperature Fans



## Atex Certified Fans

## Warehouse Ventilation





## Single Inlet Centrifugal

### Compact Dimensioned Centrifugal Fans



- External rotor motors
- Speed controllable
- Available in AC or Electronically Commutated (EC)
- 1,100Pa max | 10,000m³/h

### High Pressure Centrifugal Fans



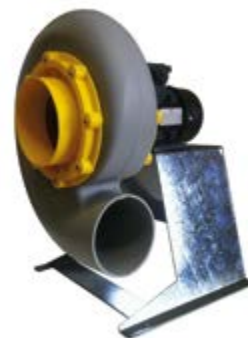
- Single inlet
- Standard motors
- Suitable for filtration, forced draught or material handling applications
- 17,000Pa max | 35,000m³/h max

### Medium Pressure Centrifugal Fans



- Robust metal construction
- Single or three phase
- Suitable for operation up to 120°C as standard
- 3,000Pa max | 21,000m³/h max

### Plastic Centrifugal Fans



- Corrosion resistant
- Polypropylene construction
- Medium pressure - Suitable for laboratory fume cupboard or process applications
- 2000Pa max | 17,000m³/h max

## Double Inlet Centrifugal

### Forward Curved Centrifugal Fans



- External rotor motors
- Single or three phase
- High efficiency
- Suitable for general ventilation & Air conditioning applications
- 900Pa max | 13,000m³/h max

### Forward Curved Centrifugal Fans



- External rotor motors
- Single or three phase
- High slippage characteristics
- Suitable for clean room & filtered applications
- 1300Pa max | 12,000m³/h max

### EC Energy Efficient Blowers



- Electronically Commutated
- External rotor motor
- Integrated electronics - Options include alarm, speed sensor, constant volume/airflow
- 475Pa max | 9560m³/h max

### Forward Curved Centrifugal Fans



- External rotor motors
- Single phase
- Industry standard dimensions, Suitable for general ventilation & Air conditioning applications
- 700Pa max | 950m³/h max

### Low Pressure Centrifugal Fans



- Inch Blowers
- AC or EC versions available
- Industry standard dimensions, Suitable for general ventilation & Air conditioning applications
- 500Pa max | 7250m³/h max



## Backward Curved Centrifugal

### Backward Curved Centrifugal Fan Modules



- External rotor motors
- Single & three phase, AC and EC
- Suitable for most HVAC, filtration or electronic cooling applications
- Size from Ø192 impeller up to Ø710
- 1,500Pa max | 17,500m³/h max

### Industrial Backward Curved Blowers



- Standard motor
- Medium pressure and high temperature
- Suitable for industrial applications including spraybooths
- Size from Ø220 up to Ø1,000
- 3,200Pa | 75,000m³/h max

### Backward Curved Motorised Impellers



- External rotor motors
- Single & three phase, AC and EC
- Suitable for most HVAC, filtration or electronic cooling applications
- Size from Ø133 to Ø710
- 1,400Pa max | 17,500m³/h max

### ECFanGrid or Fan Wall



- External rotor motors
- Single & three phase, AC and EC
- Suitable for most HVAC, filtration or electronic cooling applications
- Size from Ø133 to Ø710
- 1,400Pa max | 17,500m³/h max

## Axial Fans

### Frame Axial Fans



- Industry standard compact fans, in AC, DC or EC
- Suitable for refrigeration or electronic cooling applications
- 270Pa max | 1705m³/h max

### Sickle Blade Axial Fans



- External rotor motors Single or three phase, AC or EC
- Suitable for all HVAC applications
- 400Pa max | 33,000m³/h max

### Plate or Cased Industrial Axial Fans



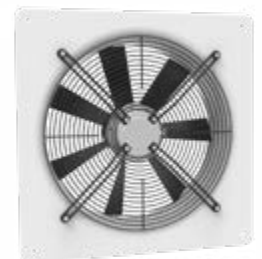
- Standard motor up to IP65 Single or three phase
- Suitable for heavy industrial applications & building ventilation
- 1,800Pa max | 160,000m³/h max

### High Power Axial Fans



- Standard motor to IP55 AC or EC
- Suitable for freezer & refrigeration applications
- 120Pa max | 2,000m³/h max

### High Efficiency Axial Fans



- External rotor motors Plate or guard mounted. Suitable for cooling & ventilating applications
- 300Pa max | 4,000m³/h max

**Pfannenberg**  
ELECTRO-TECHNOLOGY FOR INDUSTRY



## DTI/DTS 6000 COOL Cooling Units 1000-4000 Watt

**DTI:** Partially recessed in the side or door; elegantly integrated in the machine design; transport and escape routes are kept clear

**DTS:** Door or side mounting; in the event of limited space in the cabinet; the routing of cold air to the important components in the cabinet is retained

### Tool-free mounting (DTI)

By 1 person is possible in less than 3 minutes with 55 % lower mounting costs.

### Integrated sealing (DTI),

Finished and perfectly mounted.

### High energy efficiency ratio (EER)

For up to 43 % energy savings and operating costs reduction.

### Condenser

With large fin spacing enables very long maintenance intervals even without additional Nano coating

### Large distance between intake and exhaust vents

For safe air circulation and elimination of hot spots.

### Optional pre-filter

Upgradable with aluminium, fleece or fluted filter, for the application of the cooling units in different ambient conditions.

### Mounting auxiliary edge

Allows the cooling unit to stand freely when unpacking and before installing, and prevents the unit from slipping out uncontrollably during installation into the mounting cut-out by 1 person.

### Spring plate (DTI)

Enables 1 person to install the cooling unit. This prevents it from falling out when unsupervised.

### Highest variability

Due to cut-out compatibility for 5 performance classes and to Pfannenberg air/water and air/air heat exchangers.

### Additional temperature sensor

In the Multi Controller (MC) model allows the deactivation of the internal fan and condensate evaporation for additional 10 % energy savings and service life extension of the fan.

### Interface to use COOL-Plant software

At the Multi Controller (MC) model with operating hours counter and error history observation for preventive maintenance processes and exact error analysis.

### Service friendly

Due to direct access to the PCB and the fans, thus 80% shorter repair times.

### Integrated condensate evaporation;

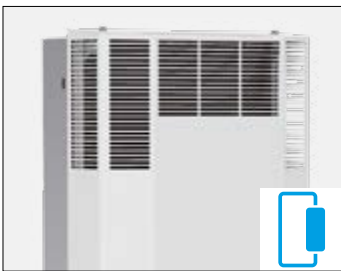
No puddles of water under the device for increased operation safety.



## Selecting the right Cooling Unit series

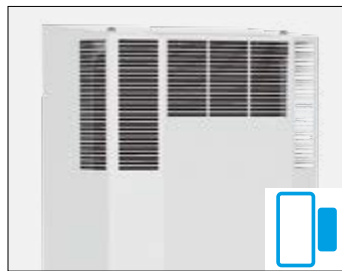
Pfannenbergs cooling units are available in 4 different series. The design concepts make it possible to select the appropriate cooling unit for the many different applications and ambient conditions.

### Mounting options: DTI, DTS and DTT



#### DTI

Cooling unit for the partially recessed side or door mounting, extremely quick installation by one person in less than 3 minutes.



#### DTS

Cooling unit for side or door mounting. For cases when there is no available space for the cooling unit inside the control cabinet.



#### DTT

Cooling unit with 100% condensate safety for the space-saving installation on the top of the control cabinet.

## Single person installation and service friendliness

Pfannenbergs thermal management units stand out through their remarkable customer friendly construction



#### Easy installation

The Plug & Play system enables a single person installation within minutes. Pfannenberg climatization units PAI, DTI and PWI are mounted with only six fastening clips.

#### Easy service

Few screws and the easy access of the components make the devices particularly service friendly.





# CABLE & CABLE MANAGEMENT



- 171** Control Cable
- 172** EV Cable
- 172** Switchgear & Panel Wiring
- 173** Lighting & Power Busbar
- 174** Cable Reels
- 176** Suspension Systems
- 179** Cable Management
- 186** Glands
- 187** Flexible Conduit
- 192** Hygienic Flexible Non-Metallic Conduit
- 194** Hygienic Flexible Metallic Conduit
- 196** Industrial Plugs & Sockets



Doncaster **Cables**



## SY Steel Wire Braid Armoured Flexible PVC Control Cable

Plain Annealed Flexible Copper Conductors / PVC Insulated / PVC Bedding / GSWB (Galvanised Steel Wire Braid) / PVC Sheathed. 300/500V

- 2 Core 0.75mm<sup>2</sup> to 1.5mm<sup>2</sup>
- 3 Core 0.75mm<sup>2</sup> to 16.0mm<sup>2</sup>
- 4 Core 0.75<sup>2</sup> to 35.0mm<sup>2</sup>
- 5 Core 0.75mm<sup>2</sup> to 35.0mm<sup>2</sup>
- 7 Core 0.75mm<sup>2</sup> to 4.0mm<sup>2</sup>
- 12 Core 0.75mm<sup>2</sup> to 2.5mm<sup>2</sup>
- 18 Core 0.75mm<sup>2</sup> to 2.5mm<sup>2</sup>
- Available in clear
- Cut to length
- Manufactured generally to BS EN 50525-2-11:2011
- Also known as armour flex
- The cable is designed to be used as interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units. It is commonly used in a wide number of industries including building and construction, rail and transport infrastructures, transmission and automation and process control
- This cable is also used by electricians in certain fixed installations where only light mechanical stress may occur. This cable can also be used outdoors (but should be protected); however, it is best suited to dry or moist conditions indoors

### CHOOSING THE RIGHT CABLE

PART NUMBER BREAKDOWN

Example Part No. - **SY1.53C**  
**SY** (Product Code)  
**1.5** (Conductor size)  
**3C** (3 is the number of cores)

PART NO	LENGTH	PART NO	LENGTH
SY1.53C	1m	SY4.04C	1m
SY2.53C	1m	SY6.04C	1m
SY4.03C	1m	SY1.55C	1m
SY6.03C	1m	SY2.55C	1m
SY1.54C	1m	SY4.05C	1m
SY2.54C	1m	SY6.05C	1m

## YY PVC Insulated & Sheathed Flexible Control Cable

Plain Annealed Flexible Copper Conductors / PVC Insulated / PVC Sheathed. 300/500V



- 2 Core 0.5mm<sup>2</sup> to 2.5mm<sup>2</sup>
- 3 Core 0.5mm<sup>2</sup> to 10.0mm<sup>2</sup>
- 4 Core 0.5mm<sup>2</sup> to 25.0mm<sup>2</sup>
- 5 Core 0.5mm<sup>2</sup> to 16.0mm<sup>2</sup>
- Available in grey
- Cut to length
- Manufactured generally to BS EN 50525-2-11:2011
- The cable is designed to be used as an interconnecting cable for measuring, controlling or regulation in control equipment for assembly and production lines, conveyors and for computer units
- Due to the flexibility of YY cable, electricians commonly use YY for linking fixed and mobile equipment. If protected correctly electricians have found that YY can be useful in outdoor projects - however it is recommended and most commonly used for indoor projects in dry or moist conditions
- 7 Core 0.5mm<sup>2</sup> to 4.0mm<sup>2</sup>
- 12 Core 0.5mm<sup>2</sup> to 2.5mm<sup>2</sup>
- 18 Core 0.5mm<sup>2</sup> to 2.5mm<sup>2</sup>
- 25 Core 0.5mm<sup>2</sup> to 1.5mm<sup>2</sup>

### CHOOSING THE RIGHT CABLE

PART NUMBER BREAKDOWN

Example Part No. - **YY1.53C**  
**YY** (Product Code)  
**1.5** (Conductor size)  
**3C** (3 is the number of cores)

PART NO	LENGTH	PART NO	LENGTH
YY0.753C	1m	YY1.54C	1m
YY1.03C	1m	YY2.54C	1m
YY1.53C	1m	YY0.755C	1m
YY2.53C	1m	YY1.05C	1m
YY0.754C	1m	YY1.55C	1m
YY1.04C	1m	YY2.55C	1m





Doncaster Cables

## Power and data connectivity combined in one cable

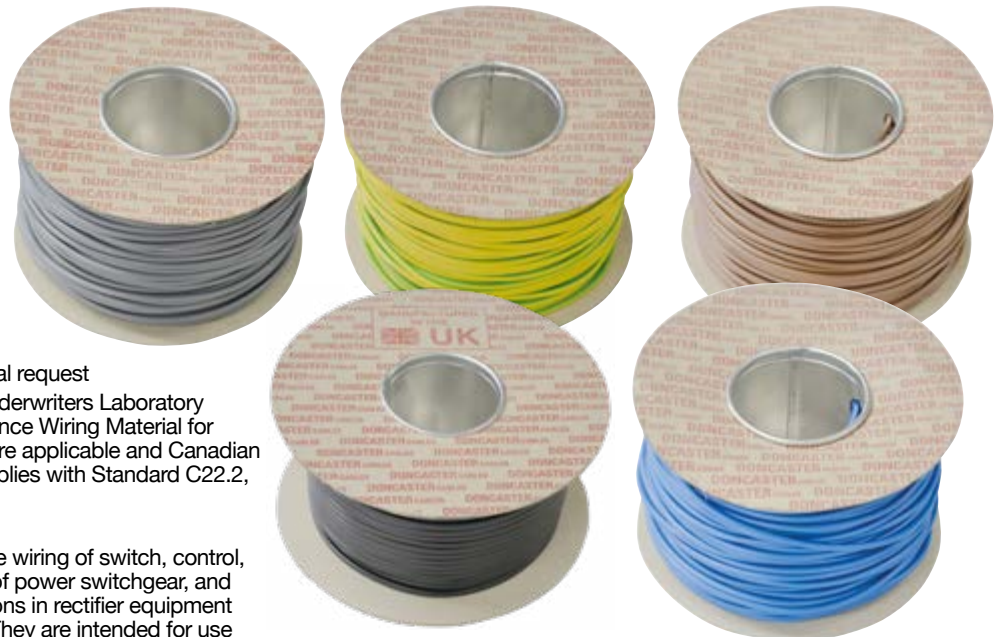
Hard wired data connectivity is a superior and secure alternative to using WiFi, resulting in a faster, neater and easier installation process. Available in both PVC Tuff-Sheath and SWA variants.

PART NO.	DESCRIPTION
<b>EV-ULTRA3C4.0</b>	EV-Ultra 3 Core 4.0 sq. mm Power and Data Cable
<b>EV-ULTRA3C4.0SWA</b>	EV-ultra 3 Core 4.0 sq. mm SWA Power and Data Cable
<b>EV-ULTRA3C6.0</b>	EV-ultra 3 Core 6.0 sq. mm Power and Data Cable
<b>EV-ULTRA3C6.0SWA</b>	EV-ultra 3 Core 6.0 sq. mm SWA Power and Data Cable

## Tri-Rated Switchgear and Panel Wiring Cables

Plain Annealed Flexible Copper / Heat Resisting PVC Insulated. 600/1000V.

- Single Core 0.5mm<sup>2</sup> to 120mm<sup>2</sup>
- Available in various colours
- Other length reels available upon special request
- Manufactured to BS 6231 Type CK, Underwriters Laboratory Listed. Conforms to subject 758 Appliance Wiring Material for Styles 1015, 1028, 1283 and 1284 where applicable and Canadian Standards Association approved. Complies with Standard C22.2, No.127, Type TEW
- BASEC, CSA and UL Approved
- These cables are intended for use in the wiring of switch, control, metering, relay and instrument panels of power switchgear, and for such purposes as internal connections in rectifier equipment and its motor starters and controllers. They are intended for use at alternating voltages not exceeded 600V to earth, and direct voltages not exceeded 1000V to earth
- When installed in the equipment they are suitable for wiring circuits for which the prescribed alternating test voltage does not exceed 4kV r.m.s for 1 minute
- By being approved to three international standards Tri-Rated cable is suitable for equipment installations required to meet both North American and European wiring regulations and codes of practice



PART NO	LENGTH
<b>TR0.75G100</b>	100m
<b>TR1.0G100</b>	100m
<b>TR1.5G100</b>	100m
<b>TR2.5G100</b>	100m
<b>TR0.75B100</b>	100m
<b>TR1.0B100</b>	100m
<b>TR1.5B100</b>	100m
<b>TR2.5B100</b>	100m
<b>TR0.75G/Y100</b>	100m
<b>TR1.0G/Y100</b>	100m

PART NO	LENGTH
<b>TR1.5G/Y100</b>	100m
<b>TR2.5G/Y100</b>	100m
<b>TR0.75BL100</b>	100m
<b>TR1.0BL100</b>	100m
<b>TR1.5BL100</b>	100m
<b>TR2.5BL100</b>	100m
<b>TR0.75BR100</b>	100m
<b>TR1.0BR100</b>	100m
<b>TR1.5BR100</b>	100m
<b>TR2.5BR100</b>	100m

### CHOOSING THE RIGHT CABLE

PART NUMBER BREAKDOWN

Example Part No. - **TR1.5G100**  
**TR** (Product Code)  
**1.5** (Conductor size)  
**G** (Colour - **G** is Grey, **B** is Black, **G/Y** is Green Yellow, **BL** is Blue, **BR** is Brown)  
**100** (Reel length in metres)





## Lighting and Power Busbar Trunking - 50% quicker to install than cable and trunking

Graziadio UK supply all types of busbar projects including lighting busbar from 25A to rising main systems and specialist power busbar up to 5000A.

- Large UK stocks of lighting busbar from 25A to 63A
- Power busbar systems designed and shipped quickly
- Fast return on all quotation requests
- UK based sales and technical support
- Lighting busbar is much easier to install than cable and trunking, and there are typically only 5 items per order
- It is often more cost effective than the installer will expect
- Lighting busbar: 25-63A
- Power busbar: 63-2500A
- IP68 Power busbar: 630-6300A



## Lighting

PART NO	DESCRIPTION
GLS2534	25A 4 Pole Lighting Busbar 3m length
GLS4034	40A 4 Pole Lighting Busbar 3m length
GLS4036	40A 6 Pole Lighting Busbar 3m length
GLS4038	40A 8 Pole Lighting Busbar 3m length
GLS6334	63A 4 Pole Lighting Busbar 3m length

PART NO	DESCRIPTION
GLSATS4	End Feed 25A/40A LH 4P
GLSATS8	End Feed 25A/40A 8P
GLSATS63	End Feed 63A LH 4P

PART NO	DESCRIPTION
GLSCT4	End Cap 25A/40A 4P
GLSCT8	End Cap 25A/40A 8P

PART NO	DESCRIPTION
GLS16FN	16A Fused Tap Off 2P (6.3A)
GLS10LN	10A Unfused Tap Off

PART NO	DESCRIPTION
GLSS4	Fixing Hanger 4P
GLSS8	Fixing Hanger 8P

## Power

- Graziadio GDA power busbar is available from 63A-2500A and is both versatile and cost effective
- It is used extensively in multi storey buildings such as hotels, office blocks and student accommodation
- We can assist in the design process, prepare schematic site drawings, and move from enquiry to delivery much quicker than many manufacturers



GDA401252



GDA401250



GDA100020

PART NO	DESCRIPTION
GDA100630	63A Busbar 4m
GDA100000	100A Busbar 4m
GDA101000M	160A Busbar 4m
GDA102000	250A Busbar 4m
GDA104000	400A Busbar 4m
GDA105000	500A Busbar 4m
GDA106000	630A Busbar 4m
GDA108000	800A Busbar 4m
GDA110000	1000A Busbar 4m
GDA112000	1250A Busbar 4m
GDA116000	1600A Busbar 4m

PART NO	DESCRIPTION
GDA100020M	End Feed 63A-100A-160A
GDA100020	End Feed 250A-400A
GDA100022	End Feed 500A-630A-800A
GDA100043	End Feed 1000A
GDA116043	End Feed 1250A-1600A

PART NO	DESCRIPTION
GDA100027	End Caps 63A-100A-160A
GDA100028	End Caps 250A-400A
GDA100029	End Caps 500A-630A-800A-1000A
GDACT4	End Caps 1250A-1600A

PART NO	DESCRIPTION
GDA010000	Fixing Hangers 63A-100A-160A
GDA010001	Fixing Hangers 250A-400A-500A-630A-800A-1000A
GDASS4	Fixing Hangers 1250A-1600A

PART NO	DESCRIPTION
GDA400250	32A Fused Tap Off
GDA401250	63A-125A Fused Tap Off
GDA401600	160A Fused Tap Off
GDA402500	250A Fused Tap Off
GDA404000	400A Fused Tap Off



**Various Cable Lengths Available**

## FT Series - Spring-retractable

- Designed and manufactured to the highest of standards, the Schill FT series of spring-retractable cable reels offers an exceptionally effective & flexible means of optimising power supply connectivity
- All reels can be wall, floor or ceiling mounted, with various cable lengths, sizes and load capacities of up to 32A, in single or 3-phase, 4 & 5-wire configurations
- After use, the cable can be simply retracted and safely stowed away leaving no trip hazard, enhancing the safety of the workplace
- Operating temperature: +5°C up to +60°C
- FT038 and FT046 are IP44 rated



GROUP PART NO.  
FT038



GROUP PART NO.  
FT046



GROUP PART NO.  
FT150



GROUP PART NO.  
FT260



GROUP PART NO.  
FT350

## GT Series

- All reels in the GT series are manufactured from Hi-Impact resistant speciality rubber, with the integrated handle/stand being manufactured from tough polycarbonate
- Each reel is supplied with either a detachable front blank plate or an auxiliary winding flange
- All reels come with a locking brake for safety and ease of stowage
- Operating temperature: -20°C up to +100°C



GROUP PART NO.  
GT235.RM



GROUP PART NO.  
GT235.SO



GROUP PART NO.  
GT310.RM



GROUP PART NO.  
GT310.SO

CABLE O/D	GT235	GT310	GT380	GT450
5mm	108m	200m	390m	520m
10mm	27m	50m	98m	130m
12mm	18m	34m	68m	90m



GROUP PART NO.  
GT380.RM



GROUP PART NO.  
GT380.SO



GROUP PART NO.  
GT450.RM



GROUP PART NO.  
GT450.SO

Please note: Group Part No's - refer to the group category - please enquire at your local branch



## IT Series

- All IT series drums are manufactured from unbreakable thermoplastic
- The IT300 is supplied with an integrated polycarbonate handle/stand, whereas all larger IT reels are supplied with a powder-coated tubular steel handle/stand for increased strength
- All metal stand reels are earth-bonded for added user safety and compliance
- Each reel is supplied with either a detachable front blank plate or an auxiliary winding flange
- All reels come with a locking brake for safety and ease of stowage
- Operating temperature: -20°C up to +60°C

CABLE O/D	IT300	IT300K	IT380
5mm	249m	232m	440m
10mm	62m	58m	110m
12mm	43m	40m	76m

## HT Series

- All HT series reels are supplied with powder-coated steel flanges & integrated handles/stands for superior strength
- All metal parts are earth-bonded for user safety & compliance
- Each reel is supplied with either a detachable front blank plate or an auxiliary winding flange
- Each reel is supplied with a locking brake for safety and stowage
- Operating temperature: -20°C up to +80°C
- Supplied in either black or orange



CABLE O/D	HT300	HT300K	HT380
5mm	249m	220m	440m
10mm	62m	55m	110m
12mm	43m	38m	76m

Please note: Group Part No's - refer to the group category - please enquire at your local branch



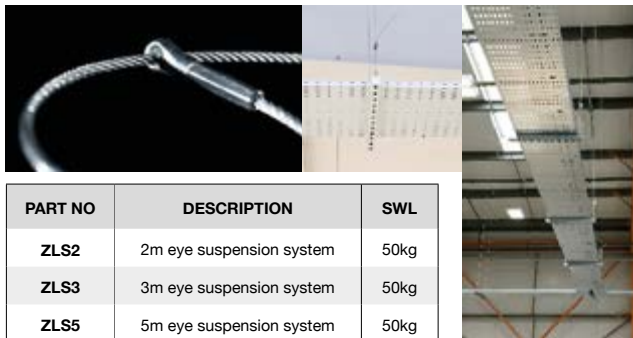


## Rize

PART NO	DESCRIPTION	SWL
KL50	Zip-Clip Rize KL50 15kg SWL	15kg
R200G	200m 15kg SWL G Wire Compatible With KL50	15kg
KL100	Zip-Clip Rize KL100 50kg SWL	50kg
R100S	100m 50kg SWL S Wire Compatible With KL100	50kg
R200S	200m 50kg SWL S Wire Compatible With KL100	50kg
R500S	500m 50kg SWL S Wire Compatible with KL100	50kg
KL150	Zip-Clip Rize KL150 120kg SWL	120kg
R100Y	100m 120kg SWL Y Wire Compatible With KL150	120kg
KL200	Zip-Clip Rize KL200 300kg SWL	300kg
R100P	100m 300kg SWL P Wire Compatible With KL200	300kg



## Zip-Lock



PART NO	DESCRIPTION	SWL
ZLS2	2m eye suspension system	50kg
ZLS3	3m eye suspension system	50kg
ZLS5	5m eye suspension system	50kg

## Loop-It



PART NO	DESCRIPTION	SWL
PLEK1G	1m Loop Suspension System	15kg
PLEK3G	3m Loop Suspension System	15kg
PLEK5G	5m Loop Suspension System	15kg
PLEK1S	1m Loop Suspension System	50kg
PLEK2S	2m Loop Suspension System	50kg
PLEK3S	3m Loop Suspension System	50kg
PLEK5S	5m Loop Suspension System	50kg
PLEK10S	10m Loop Suspension System	50kg

## Con-Lock



PART NO	DESCRIPTION	SWL
CLS1	1m Concrete Susp. System	50kg
CLS2	2m Concrete Susp. System	50kg
CLS3	3m Concrete Susp. System	50kg
CLS5	5m Concrete Susp. System	50kg



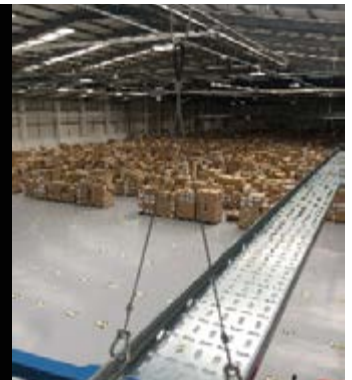
## Stay in Control

Pre-fab Service Zip-Clip is also renowned for its unique problem solving skills. Over the past number of years Zip-Clip has designed and developed a range of systems tailored to overcome troublesome applications. With their highly trained technical managers and their extensive knowledge of the fixings market Zip-Clip can confidently design a solution for all your requirements



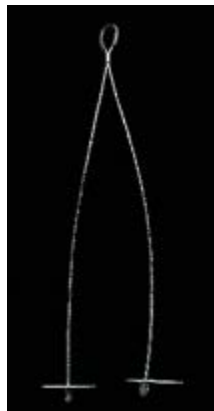
## Try-Lock

PART NO	DESCRIPTION	SWL
TRS50-200	300mm Carabiner Susp. Syst.	50kg
TRS300-400	460mm Carabiner Susp. Syst.	50kg



## Luma-Lock

PART NO	DESCRIPTION	SWL
LUMG300-400	460mm Toggle Susp. Syst.	15kg
LUMG600	500mm Toggle Susp. Syst.	15kg
LUM300-400	460mm Toggle Susp. Syst.	35kg
LUM600	500mm Toggle Susp. Syst.	35kg



### Applications

- Cable tray
- Cable basket
- Ladder rack
- Luminaires
- Trunking
- High/Low bay lighting
- Busbar
- Trapeze bracketry

## Strut-Lock

PART NO	DESCRIPTION	SWL
TPDM820LPS1	1m Loop Trapeze System	45kg
TPDM820LPS3	3m Loop Trapeze System	45kg
TPDM820LPS5	5m Loop Trapeze System	45kg
TPDM1020LPY1	1m Loop Trapeze System	90kg
TPDM1020LPY3	3m Loop Trapeze System	90kg
TPDM1020LPY5	5m Loop Trapeze System	90kg



## Advantages

- Key free release system
- Easy to handle
- Cold cut
- Vibration reduction
- Reduced labour cost
- Reduced risk of injury
- Aesthetically pleasing
- Reduced environmental impact

## Strength with Style

Zip-Clip wire supports are used as an alternative means of suspension to traditional threaded rod systems. Offering quick installation times, ease of use, guaranteed weight loadings from 15 - 500kg, ease of storage and transport, low visual impacts and a variety of end fixings among many other points



**Zip-Clip offers a selection of end fixings, suitable for various types of substrates**

## Fixing to Existing Services

- Rize
- Zip-Lock
- Loop-It
- Snap-It



## Concrete Applications

- Con-Lock
- Shot-Lock
- Thread-It
- Anchor-It



## Timber and Other Substrates

- Uni-Lock
- Thread-it M6
- Thread-It M8



## Profile Decking

- Dec-Lock
- Knock-It
- Toggle-It



## Trapeze Brackets

- Chan-Lock
- Plus on Wire
- Strut-Lock



## Catenary Applications

- Span-Lock
- Zip-Clip



## Basket, Tray and Other Applications

- Try-Lock
- Luma-Lock



- Y-It Carabiner
- Y-It Toggle



**CONTACT YOUR LOCAL BRANCH FOR YOUR REQUIREMENTS**





## Cabletrail Unit

- Cable Track 5 can accommodate up to 5x11mm cables (110V)
- Heavy Duty Cable Track 3 can take 3x 20dia Cables or 1 x32mm

They can be utilised for electrical, air, water or any type of conduit where a good level of cable management is required. Ideal for flexible or semi permanent cable management. Multiple fixing points for cable tie, bolt, screw or high powered magnet location

PART NO	DESCRIPTION
PCT02	Cable Track 5 (Pack of 6)
CTHD02	Cable Track 3 (Single)



## Tri Hooks

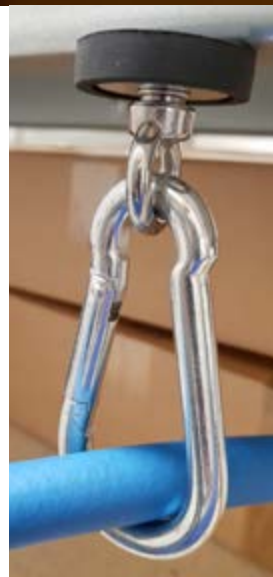
- Small 230mm can locate over any hand rail or scaffold up to 80mm diameter and accommodate multiple cables in its unique D Location. Ideal for fast an effective cable routing on any temporary site. Low cost fast and effect solution to preventing trip hazards.
- Large 325mm can locate over diameters up to 120mm and has a large capacity Btm D Section to accommodate multiple or large diameter cables and ducting
- Wall mount hooks - Secure location of up to 12 x 20mm dia cables or 3x40mm dia Or 1 large 75mm hose Fix using Bolt or Magnet
- Metal versions are available on a made to order basis. Min Qty 50

PART NO	DESCRIPTION
PTRS02	Small Tri Hook (Pack of 6)
PKRL02	Small Tri Hook (Pack of 6)
PTRL02	Wall Hook (Pack of 6)



## Magnetic Fixing

- Magnetic Fixing complete with Carabiner hook for secure and simple cable management
- Ideal where hooks are not an option and only a single cable is needed to be located
- Can also be supplied with a protective rubber cup where the mounting surface has to be protected



PART NO	DESCRIPTION
PCB01	Small Carabiner with 23Kg Pull Magnet (Pack of 12)
PHCB01	Large 100mm Carabiner with 63kg Pull Magnet (Pack of 6)



## Tripod

- High stability Tripod complete with 2x Cable trail units and convenient carry handle
- Lightweight and foldable to a compact 1.5m for easy transportation
- Adjustable to 2.3m high and capable of handling 10 x 11mm dia cables

PART NO	DESCRIPTION
TRP01	Tripod Assembly



## Heavy Duty Hose and Cable Ramp Protectors

- 2, 3 and 5 channel with load capacity up to 44T these are made for the toughest of indoor and outdoor environments.
- Each 1M section can be easily located into the next to cover long runs

PART NO	DESCRIPTION
HDCP02	2x32mm Cable Channels
HDCP03	2x65x50 1x68x50 Cable and Hose Channels
HDCP05	5x38x35mm Cable Channels



## Cable Mats

- Simple and effective cable mats with fabric or rubber finish

PART NO	DESCRIPTION
CMOR	Grey mat with rubber finish
CMOC	Grey mat with cloth finish

## Pedestrian Cable Protector

- A simple pedestrian cable protector for indoor or outdoor use where each 1m section can be linked to create a longer run of protection.

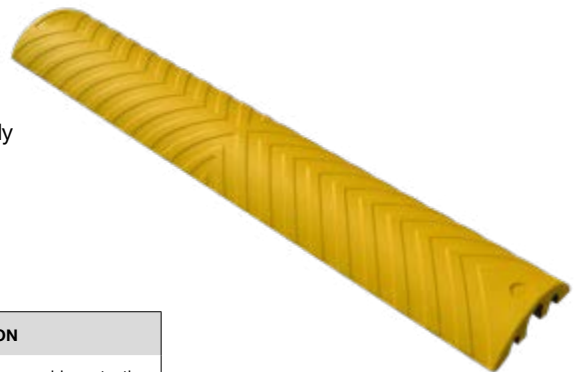
PART NO	DESCRIPTION
PCP01	Pedestrian Cable Protector



## Heavy Duty Rubber Throw

- Drop over cable protector in Highly visible Yellow rubber. Suitable for indoor and outdoor use and can also be used for traffic calming. Speed restriction of 5mph
- Can take 1x 40mm and 2 x 20mm cables

PART NO	DESCRIPTION
SP1200	1.2m Heavy duty rubber throw over cable protection



## Interlocking Flooring Tiles

Industrial and commercial flooring tiles require no damp proof membrane, screed or adhesives. Suitable for all and any space – whether commercial, industrial, or residential, they are versatile and ideal. They provide extra insulation and give the professional look to impress your visitors.

- Easy to install
- No damp proof membrane, screed or adhesives required
- Reduces dust and noise
- Excellent durability and slip resistance
- Warm – insulates the floor
- Fire retardant – Bfl S1
- Reduces fatigue
- Environmentally sustainable
- Choice of colours
- Easy to clean and maintain

PART NO	DESCRIPTION
RT01	Black
RT02	Yellow
RT03	Red
RT04	Green
RT05	Blue
RT17	Grey

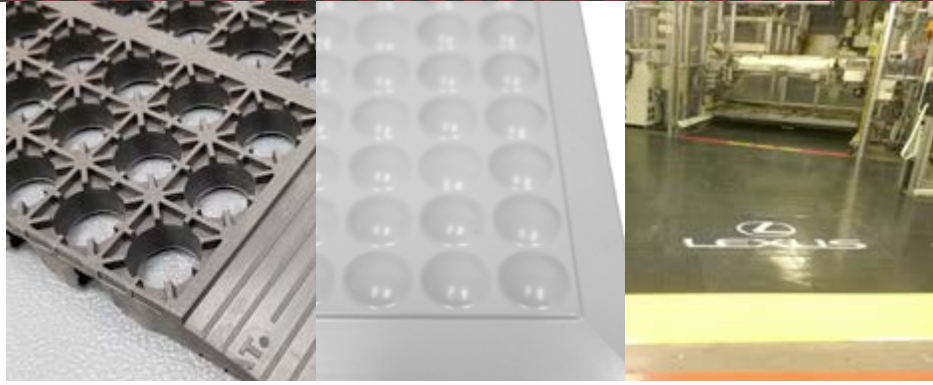
**OTHER STYLES AND THICKNESSES AVAILABLE ON REQUEST**





## Industrial Flooring Mats

- A complete range of Mats to cover all aspects of industrial safety, Std sizes (90x60) Basic anti fatigue, Oil resistant and Drainage Mats
- Alternatively a complete made to measure item, with company logo and LED inlays options which can be activated via Motion sensor or door contact



PART NO	DESCRIPTION
<b>BBM</b>	Basic bubble is a light-duty ergonomic mat that will perform well in non-demanding applications like pick lines and mail rooms
<b>CSM</b>	Complete smooth offers all the benefits of the bubble with an easy clean surface
<b>NBM</b>	Nitril is a non-porous rubber ergonomic mat that will not curl, swell or otherwise deteriorate when exposed to oils. The nitril provides exceptional traction in wet or oily environments for added worker safety
<b>MM</b>	Drainage Mat: For use in extremely wet or oily environments, or other working conditions that require significant material pass through like sandblasting. Large areas can be fused together or linked with mechanical fasteners to facilitate moving or reconfiguring.

## LV-Tag – Asset and Inspection Tags

- High grade Polyurethane tags. Chemical, solvent and UV resistant
- Self tying
- They can be written on to provide quick and easy identification or can be Laser printed with any detail, the print is etched into the surface of the tag so cannot be removed



**PLEASE SUPPLY  
REQUIRED  
PRINT DETAILS  
WHEN ORDERING**

### Examples of Prints:



**HAV Tags**



**Hire Tags**



**Safety Tags**



**Loler Inspection Tags**

PLAIN PART NO.	PRINTED PART NO.	DESCRIPTION
LV01	LV01-P	Black
LV02	LV02-P	Yellow
LV03	LV03-P	Red
LV04	LV04-P	Lime Green
LV05	LV05-P	Light Blue
LV06	LV06-P	White
LV07	LV07-P	Orange
LV09	LV09-P	Lilac
LV10	LV10-P	Pink
LV11	LV11-P	Brown
LV12	LV12-P	Beige
LV14	LV14-P	Green
LV15	LV15-P	Blue
LV16	LV16-P	Purple

## RFID Identification

- Our RFID come in a wide range of frequencies and formats to suit a wide range of applications
- Including Hire, Oil & Gas, Utilities and Aerospace
- Please discuss your specific application so we can best match the product to ensure the most effective solution



**E-Clip**



**LVF-UHF**

## Printed Heat Shrink Sleeving

- Ideal for cable management and identification
- Heat shrink sleeves can be thermal printed with a black ink onto white or yellow sleeving, suitable for threading onto 3.6, 4.8, 7.6mm cable ties

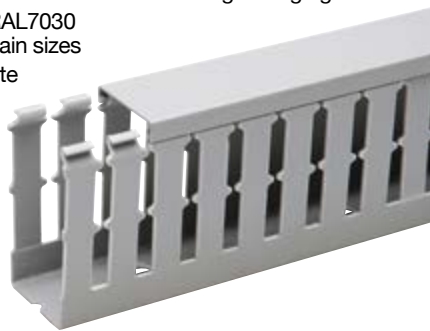




## IBOCO

- IBOCO Trunking by Bocchiotti is manufactured in self extinguishing rigid PVC
- The main colour of supply is Grey RAL7030 but it is also available in Blue in certain sizes
- Supplied in 2 Metre lengths complete with cover

### Standard Slot Trunking T1 & T1-E



PART NO	DIMENSIONS (W x H)	2M LENGTHS PER PACK
T1-15x18G	15 x 18mm	36
T1-15x30G	15 x 30mm	32
T1-25x30G	25 x 30mm	36
T1-15x40G	15 x 40mm	24
T1-25x40G	25 x 40mm	36
T1-40x40G	40 x 40mm	20
T1-60x40G	60 x 40mm	12
T1-80x40G	80 x 40mm	12
T1-100x40G	100 x 40mm	8
T1-15x60G	15 x 60mm	32
T1-25x60G	25 x 60mm	24
T1-40x60G	40 x 60mm	18
T1-60x60G	60 x 60mm	12
T1-80x60G	80 x 60mm	12
T1-100x60G	100 x 60mm	8

PART NO	DIMENSIONS (W x H)	2M LENGTHS PER PACK
T1-120x60G	120 x 60mm	8
T1-F-25x80G	25 x 80mm	24
T1-F-40x80G	40 x 80mm	16
T1-F-60x80G	60 x 80mm	12
T1-F-80x80G	80 x 80mm	12
T1-F-100x80G	100 x 80mm	8
T1-F-120x80G	120 x 80mm	8
T1-F-25x100G	25 x 100mm	8
T1-F-40x100G	40 x 100mm	8
T1-F-60x100G	60 x 100mm	4
T1-F-80x100G	80 x 100mm	4
T1-F-100x100G	100 x 100mm	4
T1-F-150x100G	150 x 100mm	4
T1-75x125G	75 x 125mm	6
T1-100x125G	100 x 125mm	4

### Narrow Slot Trunking T1E & T1-EF - Grey



PART NO	DIMENSIONS (W x H)	2M LGTHS PER PK
T1-E-25x40G	25 x 40mm	36
T1-E-40x40G	40 x 40mm	20
T1-E-60x40G	60 x 40mm	12
T1-E-80x40G	80 x 40mm	12
T1-E-100x40G	100 x 40mm	8
T1-E-25x60G	25 x 60mm	24
T1-E-40x60G	40 x 60mm	18
T1-E-60x60G	60 x 60mm	12
T1-E-80x60G	80 x 60mm	12
T1-E-100x60G	100 x 60mm	8
T1-E-120x60G	120 x 60mm	8

PART NO	DIMENSIONS (W x H)	2M LGTHS PER PK
T1-EF-25x80G	25 x 80mm	24
T1-EF-40x80G	40 x 80mm	16
T1-EF-60x80G	60 x 80mm	12
T1-EF-80x80G	80 x 80mm	12
T1-EF-100x80G	100 x 80mm	8
T1-EF-120x80G	120 x 80mm	8
T1-EF-25x100G	25 x 100mm	8
T1-EF-40x100G	40 x 100mm	8
T1-EF-60x100G	60 x 100mm	4
T1-EF-80x100G	80 x 100mm	4
T1-EF-100x100G	100 x 100mm	4

## PARTEX MARKING SYSTEMS

### Marking System

- A closed secure marker for unconnected wires and cables designed for electrical, hydraulic and pneumatic applications
- Chevron cut to enable interlocking and alignment of characters
- The range covers cable sizes up to 70mm<sup>2</sup>



#### PA02/1 for 0.5mm<sup>2</sup> - 0.75mm<sup>2</sup> Cable

PART NO	DESCRIPTION
PA02	For cable 0.5mm <sup>2</sup> to 0.75mm <sup>2</sup> . Available in Colour Coded Numbers or Black on White Numbers and Letters. Total: 1000 markers on reel
PA02(200)	For cable 0.5mm <sup>2</sup> to 0.75mm <sup>2</sup> . Available in Colour Coded Numbers or Black on White Numbers and Letters. Total: 200 Loose

#### PA01/3 for 0.75mm<sup>2</sup> - 4mm<sup>2</sup> Cable

PART NO	DESCRIPTION
PA1/3	For cable 0.75mm <sup>2</sup> to 4mm <sup>2</sup> . Available in Colour Coded Numbers or Black on White Numbers and Letters. Total: 1000 markers on reel
PA1/3(200)	For cable 0.75mm <sup>2</sup> to 4mm <sup>2</sup> . Available in Colour Coded Numbers or Black on White Numbers and Letters. Total: 200 Loose



#### PA2/4 for 2.5mm<sup>2</sup> - 16mm<sup>2</sup> Cable

PART NO	DESCRIPTION
PA2/4(250)	For cable 2.5mm <sup>2</sup> to 16mm <sup>2</sup> . Available in Colour Coded Numbers or Black on White Numbers and Letters. Total: 250 markers on reel



#### PA03/6 for 16mm<sup>2</sup> - 70mm<sup>2</sup> Cable

PART NO	DESCRIPTION
PA3/6(20)	For cable 16mm <sup>2</sup> to 70mm <sup>2</sup> . Available in Colour Coded Numbers or Black on White Numbers and Letters. Total: 20 Loose



## Firefly Fixings

- Material: Galv zinc steel EN10270-1-SL-ZN
- Melt point: Over 1000OC

Fire Safe Cable Clips – metal cable retention clips for Fire Alarms, HVAC, CCTV and general electrical and fit most brands of plastic trunking. All our Safety Cable Clips are 100% compliant with BS7671:2008 Amendment 3 (2015). This requires the use of metallic fire-safe clips in the retention of overhead cabling which is either exposed or inside plastic trunking. The failure of which may hinder access or evacuation.

Firefly Safety Cable Clips are the ONLY cable clips that work well inside YT2, YT3, YT4, YT5, YT6, YT8, YT15 and CMT/MT equivalent trunking. They allow for easy addition or removal of cables and are fire-resistant to very high and prolonged temperatures.

### Spring loaded for extra security and ease of use

Firefly Safety Cable Clips are spring loaded to hold cables tighter in place in the event of fire. As plastic melts around them, they dig in tighter!

Being spring loaded, these versatile, high spec cable retention clips are perfect for fast installation and ease of use – AND RE-USE – across a wide range of applications. Adding or removing cables could not be easier. Nothing is unscrewed.

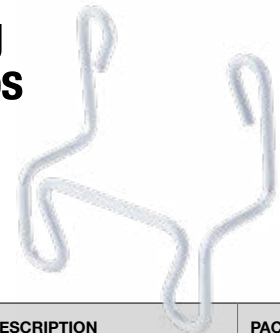
Firefly Safety Cable Clips are an important aid to survival in the event of fire and can be fixed to walls, ceilings or suspended from stud bar. Use again and again without destroying the clip or having to unscrew the clip from its mounting.

### Internal Fitting Fire Safety Clips



PART NO	DESCRIPTION	PACK QTY
YFFC1	To suit plastic trunking 16mm x 16mm (internal)	100
YFFC2	To suit plastic trunking 25mm x 16mm (internal)	100
YFFC3	To suit plastic trunking 40mm x 16mm (internal)	100
YFFC4	To suit plastic trunking 40mm x 25mm (internal)	100
YFFC5	To suit plastic trunking 40mm x 40mm (internal)	100
YFFC6	To suit plastic trunking 50mm x 25mm (internal)	100
YFFC8	To suit plastic trunking 50mm x 50mm (internal)	50

### External Fitting Fire Safety Clips



PART NO	DESCRIPTION	PACK QTY
YFFC2-EXT	To suit plastic trunking 25mm x 16mm (external)	100
YFFC4-EXT	To suit plastic trunking 40mm x 25mm (external)	100

### Fire Safety Clips Tubs



PART NO	DESCRIPTION
YFFC2M-KIT	200 x Internal fitting clips for 25mm x 16mm trunking c/w 200 masonry screws, washers & 1 x 4mm drill
YFFC2C-KIT	100 x Internal fitting clips for 25mm x 16mm trunking c/w 100 cavity fixing & screws
YFFC4M-KIT	100 x Internal fitting clips for 40mm x 25mm trunking c/w 100 masonry screws, washers & 1 x 4mm drill
YFFC4C-KIT	50 x Internal fitting clips for 40mm x 25mm trunking c/w 50 cavity fixing & screws
YFFC2EXTM-KIT	100 x External fitting clips for 25mm x 16mm trunking c/w 200 masonry screws, washers & 1 x 4mm drill
YFFC2EXTC-KIT	50 x External fitting clips for 25mm x 16mm trunking c/w 100 cavity fixing & screws
YFFC4EXTM-KIT	50 x External fitting clips for 40mm x 25mm trunking c/w 100 masonry screws, washers & 1 x 4mm drill
YFFC4EXTC-KIT	50 x External fitting clips for 40mm x 25mm trunking c/w 100 cavity fixing & screws

### Round Conduit Fire Safety Clips



PART NO	DESCRIPTION	PACK QTY
YFFRC20	20mm conduit clip	100
YFFRC25	25mm conduit clip	100

### Firefly Accessories



PART NO	DESCRIPTION	PACK QTY
YFFC2-MS4737M	Masonry Screws 4.7mm x 37mm & washers	100
YFFC-CFSM	Cavity fixings & screws	50



## Heatshrink SP EU Packs

- Contains 5 colours - black, blue, brown, green/yellow and grey

PART NO	SIZE (mm)	SHRINKS TO	LENGTH
YSP6EU	6.4	3.0	250mm x 5 Cols x 3 Lgths
YSP12EU	12.7	6.0	250mm x 5 Cols x 3 Lgths
YSP19EU	19.0	9.0	250mm x 5 Cols x 2 Lgths
YSP25EU	25.0	12.0	250mm x 5 Cols x 2 Lgths
YSP38EU	38.0	19.0	250mm x 5 Cols x 2 Lgths



## Heatshrink SP Packs

- Contains 4 colours - red, blue, yellow and black

PART NO	SIZE (mm)	SHRINKS TO	LENGTH
YSP6	6.4	3.0	250mm x 4 Cols x 3 Lgths
YSP12	12.7	6.0	250mm x 4 Cols x 3 Lgths
YSP19	19.0	9.0	250mm x 4 Cols x 2 Lgths
YSP25	25.0	12.0	250mm x 4 Cols x 2 Lgths
YSP38	38.0	19.0	250mm x 4 Cols x 2 Lgths

## Dual Wall (Adhesive Lined) Polyolefin Heatshrink Packs

PART NO	COLOUR	SIZE (mm)	SHRINKS TO	LENGTH
YSPDW6	Black	6.4	2.2	250mm x 15 Lgths
YSPDW12	Black	12.7	4.2	250mm x 10 Lgths
YSPDW25	Black	25.0	8.5	250mm x 5 Lgths



## Handi-Box

- For small quantities, an easy way of buying an assortment of coloured standard grade heatshrink incorporating colours - Red, Yellow, Blue, Green/Yellow, Black, Grey, White, Clear and Brown.



\*Please specify colour required after Part No.

PART NO	INTERNAL DIAMETER (mm)		WALL THICKNESS (mm)		BOX QTY (m)
	AS SUPPLIED (min.)	AFTER RECOVERY (MAX.)	AS SUPPLIED (min.)	AFTER RECOVERY (MAX.)	
YSG3.2*-HB	3.2	1.30	0.18	0.38	15
YSG4.8*-HB	4.8	2.30	0.25	0.50	10
YSG6.4*-HB	6.4	3.0	0.28	0.55	10
YSG9.5*-HB	9.5	4.5	0.30	0.60	10
YSG12.7*-HB	12.7	6.0	0.30	0.60	10
YSG19*-HB	19.0	9.0	0.40	0.80	5
YSG25*-HB	25.0	12.0	0.55	0.90	5

## Standard Grade Polyolefin Heatshrink

- SG is a flexible, flame-retardant heat shrinkable polyolefin tubing designed for a wide range of applications such as insulation, marking, strain relief and mechanical protection
- U L224 125°C 600V VW-1
- CSA C22 .2 No. 198 125°C 600V
- RoHS Compliant
- Radial shrinkage: 50% min
- Longitudinal shrinkage: 5% max
- Tubing has ability to shrink at comparatively low temperatures of 100°C
- 2:1 shrink ratio
- Operating temperature: -55°C to 125°C
- Self-extinguishing



PART NO	SIZE (mm)	'LAYFLAT' (mm) (NOMINAL)	INTERNAL DIAMETER (mm)		WALL THICKNESS (mm)		BOX QTY (m)
			AS SUPPLIED (min.)	AFTER RECOVERY (MAX.)	AS SUPPLIED (min.)	AFTER RECOVERY (MAX.)	
YSG1.2*	1.2	-	1.4	0.60	0.20	0.36	200
YSG1.6*	1.6	-	2.0	0.75	0.20	0.44	200
YSG2.4*	2.4	-	2.5	1.00	0.20	0.44	100
YSG3.2*	3.2	5	3.4	1.50	0.25	0.44	100
YSG4.8*	4.8	8	5.0	2.25	0.25	0.56	100
YSG6.4*	6.4	11	6.5	3.00	0.25	0.56	100
YSG9.5*	9.5	17	9.8	4.50	0.25	0.56	100
YSG12.7*	12.7	21	12.5	6.00	0.25	0.56	100
YSG19*	19.1	31	19.3	9.00	0.35	0.77	50
YSG25*	25.4	44	25.5	12.5	0.45	0.87	50
YSG38*	38.0	60	39.0	19.0	0.50	0.97	50
YSG50*	50.0	83	51.0	25.0	0.50	0.97	50
YSG75*	75.0	128	76.2	38.1	0.50	0.97	50
YSG100*	100.0	160	101.6	50.8	0.50	0.97	50

\*Suffix colour required. For technical data contact SWA. Larger sizes available on request. Sold on reels or cut to size. Colours available: Black, blue, yellow, red, white, clear, brown, grey - other colours on request. Wall thickness will be less if tubing recovery is restricted during shrinkage.





## Standard Grade Polyolefin (G/Y)

- Green and yellow striped, flexible polyolefin sleeving
- YSG-G/Y is a general purpose, flexible polyolefin tubing for a wide range of applications such as insulation, strain relief, light-duty harnessing or where the international electrical ground designation is intended
- Shrink ratio 2:1
- Minimum shrink temperature: 90°C
- Operating temperature: -30 °C to +125°C
- Flammability: UL VW-1
- UL224 (Reference standard)



PART NO	'LAYFLAT' (mm) (NOMINAL)	INTERNAL DIAMETER (mm)		WALL THICKNESS (mm)		BOX QTY (m)
		AS SUPPLIED (min.)	AFTER RECOVERY (MAX.)	AS SUPPLIED (min.)	AFTER RECOVERY (MAX.)	
YSG3.2G/Y	5	3.4	1.50	0.25	0.50	100
YSG4.8G/Y	8	5.0	2.25	0.25	0.59	100
YSG6.4G/Y	11	6.5	3.00	0.25	0.56	100
YSG9.5G/Y	17	9.8	4.50	0.25	0.68	100
YSG12.7G/Y	21	12.5	6.00	0.25	0.68	100
YSG19G/Y	31	19.3	9.00	0.35	0.77	50
YSG25G/Y	44	25.5	12.5	0.45	0.90	50
YSG38G/Y	60	39.0	19.0	0.50	1.04	50
YSG50G/Y	83	51.0	25.0	0.50	0.97	50

## Sizing Chart Guide

CABLE SIZE	6491X	6181Y
1.5mm <sup>2</sup>	YSG4.8	YSG64
2.5mm <sup>2</sup>	YSG4.8	YSG64
4.0mm <sup>2</sup>	YSG6.4	YSG95
6.0mm <sup>2</sup>	YSG6.4	YSG95
10mm <sup>2</sup>	YSG9.5	YSG12
16mm <sup>2</sup>	YSG9.5	YSG12
25mm <sup>2</sup>	YSG12	YSG19
35mm <sup>2</sup>	YSG12	YSG19
50mm <sup>2</sup>	YSG19	YSG19
70mm <sup>2</sup>	YSG19	YSG25
95mm <sup>2</sup>	YSG19	YSG25
120mm <sup>2</sup>	YSG25	YSG25
150mm <sup>2</sup>	YSG25	YSG38
185mm <sup>2</sup>	YSG25	YSG38
240mm <sup>2</sup>	YSG38	YSG38
300mm <sup>2</sup>	YSG38	YSG38
400mm <sup>2</sup>	YSG38	YSG50
500mm <sup>2</sup>	YSG50	YSG50
630mm <sup>2</sup>	YSG50	YSG50

## EarthingNuts™

- Electrical Industry Awards Winner- Innovative Power Products
- No extra drilling required - saving up to 60% on fitting time than conventional methods and does not compromise the enclosure IP rating
- Improved safety during fitting and in service
- Fitted right first time every time
- Replaces the traditional "banjo" earth-tag and lock-nut
- Unique cutting teeth bite into the box wall so that the gland can be tightened with one tool from the outside
- Teeth provide voltage equalising connection to EMI shielding
- Enable a direct high integrity connection for protective earthing
- Grub screw secures nut to the gland ensuring continuity, even if the enclosure becomes damaged
- Supplied with grub screw(s), connecting bolt and allen key



PART NO	TO SUIT THREAD SIZE (mm)	PACK QUANTITY
YBELN20-PK2	20	2
YBELN20-PK10	20	10
YBELN25-PK2	25	2
YBELN25-PK10	25	10
YBELN32-PK2	32	2
YBELN40-PK1	40	1
YBELN50-PK1	50	1
YBELN63-PK1	63	1
YBELN75-PK1	75	1



## STORM® Cable Glands

The new STORM® range of cable glands suitable for termination of armoured and non-armoured, SY and CY braided cables.

Offering improved ingress protection (IP68) and faster-fitting over conventional armoured cable glands.

- Fast-fit
- No need for a shroud
- Suitable for multiple cable types – armoured and non-armoured, SY & CY braided cables
- IP68 rated
- Non-corrosive
- UV stabilised
- Zero-halogen
- Material: Gland body, armour ring: brass  
Gland upper & lower body: PA66 30% GF  
Gasket & O-rings: NBR
- Operating temperature range: -20°C to +80°C
- Approval: BS EN 62444: 2013
- Flammability of plastic
- Material used in Storm, is V0 according to UL94
- Flammability of O-rings (NBR) is HB according to UL94



FLAMMABILITY	DRY	TEST METHOD
Oxygen index	35	ISO 4589-2
French fire index	F2	NF F16-101
French smoke index	I3	NF F16-101

ADDITIONAL INFORMATION	TEST METHOD
European Railways Certifications	
R22	EN 45545-2
R23	

### Standard Version

- Pack contains: 2 glands, 2 earth tags & 2 brass locknuts

PART NO	ENTRY THREAD EN 60423	DIAMETER MINIMUM	DIAMETER MAXIMUM	ARMOUR WIRE RANGE
YSTORM20S	M20 X 1.5	10.5	16.0	0.80 - 1.25
YSTORM20	M20 x 1.5	15.5	21.0	0.80 - 1.25
YSTORM25	M25 x 1.5	20.5	27.5	1.20 - 1.60
YSTORM32	M32 x 1.5	27.0	35.0	1.60 - 2.00

### Tauras™ Version Complete with EarthingNuts™

- Pack contains: 2 glands, 2 EarthingNuts™, terminations and allen key

PART NO	ENTRY THREAD EN 60423	DIAMETER MINIMUM	DIAMETER MAXIMUM	ARMOUR WIRE RANGE
YTSTORM20S	M20 X 1.5	10.5	16.0	0.80 - 1.25
YTSTORM20	M20 x 1.5	15.5	21.0	0.80 - 1.25
YTSTORM25	M25 x 1.5	20.5	27.5	1.20 - 1.60
YTSTORM32	M32 x 1.5	27.0	35.0	1.60 - 2.00

## Flexible Conduit

A comprehensive range of flexible conduit in a variety of materials, sizes and lengths from stock. Different coloured conduits are also available to order. Please contact us for further information.

### Polypropylene

Corrugated conduit is a very economical solution for a variety of applications due to its high flexibility and compression strength. Suitable for embedding into floors and walls, polypropylene conduit is often used for cable assemblies, underfloor wiring and general cable tidying.

### PVC

This advanced product is ideal for all general purpose applications where durability and flexibility is required. With an all PVC construction, the product offers all round protection and facilitates fast insertion of the cable.

As a UL recognised product, this conduit range will not support combustion and offers a high ingress protection of IP65, which can be achieved without the use of tools.

### Nylon

Manufactured from Polyamide 6, this range has excellent resistance to alcohols, grease, mineral oils, kerosene, detergents, solvents and UV rays.

This range is UV, flame retardant and free of halogens, making it an excellent choice for external applications.

### Galvanised steel

Typically used for lighting installations, underfloor heating and other high temperature applications where continuous flexing is required, this range is designed for both commercial and industrial users.

This galvanised conduit is wound from a formed strip of electro-galvanised steel.

### PVC Covered Galvanised steel

Designed to provide high mechanical protection in a highly flexible format, this conduit range can be used in a wide range of dynamic and static applications as well as commercial and industrial environments.

A unique vacuum extrusion process allows this conduit to have a thin PVC jacket, which does not restrict the excellent flexibility characteristics of the inner core and also offers a degree of weather proofing.

## Polypropylene Contractor Packs

Available in both black and white finish in diameter range of 16-32mm

- Ingress protection: IP40
- Temperature range -40°C to +120°
- UV resistant
- LSOH
- Complete with 10 glands and locknuts



PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERSCP16PPB	16mm x 10m	Black	10.7mm	16mm
ERSCP20PPB	20mm x 10m	Black	16.8mm	20mm
ERSCP25PPB	25mm x 10m	Black	19.9mm	25mm
ERSCP32PPB	32mm x 10m	Black	26.5mm	32mm
ERSCP20PPW	20mm x 10m	White	16.8mm	20mm
ERSCP25PPW	25mm x 10m	White	19.9mm	25mm



Industrial

FOR LOCKNUTS  
SEE PAGE 191

## Galvanised Steel Conduit Contractor Packs

Available in diameter range of 20-25mm

- Ingress protection: IP40
- Temperature range -50°C to +300°C
- Complete with 10 fixed galvanised glands



PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERSCP20GALV	20mm x 10m	Galvanised	17mm	20.5mm
ERSCP25GALV	25mm x 10m	Galvanised	21mm	25mm

## PVC Contractor Packs

Available in diameter range of 20-25mm

- Ingress protection: IP65
- Temperature range -20°C to +60°C
- Flame retardant - self extinguishing within 30 seconds (UL94VO)
- Complete with 10 glands and locknuts
- UL approved



PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERSCP20PVCB	20mm x 10m	Black	16mm	20.7mm
ERSCP25PVCB	25mm x 10m	Black	22mm	27.7mm

## Nylon Contractor Packs

Available in diameter range of 20-25mm

- Ingress protection: IP68
- Temperature range -40°C to +120°C
- UV resistant acc. to DIN EN ISO 8580
- Flame retardant halogen free
- Complete with 10 glands and locknuts



PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERSCP20NYB	20mm x 10m	Black	17mm	21.2mm
ERSCP25NYB	25mm x 10m	Black	23.5mm	28.4mm

## PVC Covered Galvanised Steel Conduit Contractor Packs

Available in diameter range of 20-25mm

- Ingress protection: IP54
- Temperature range -20°C to +80°C
- Complete with 10 fixed galvanised glands

FOR LOCKNUTS  
SEE PAGE 191



PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERSCP20GPVC	20mm x 10m	Black	17mm	21.5mm
ERSCP25GPVC	25mm x 10m	Black	21mm	26mm





## Polypropylene Conduit

Available in both black and white finish in diameter range of 16-50mm and lengths of 10-100m

- Ingress protection: IP40
- UV resistant
- Temperature range -40°C to +120°C
- LSOH

PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERS16PP10MB	16mm x 10m	Black	10.7mm	16mm
ERS16PP25MB	16mm x 25m	Black	10.7mm	16mm
ERS16PP50MB	16mm x 50m	Black	10.7mm	16mm
ERS16PP100MB	16mm x 100m	Black	10.7mm	16mm
ERS20PP10MB	20mm x 10m	Black	16.8mm	20mm
ERS20PP25MB	20mm x 25m	Black	16.8mm	20mm
ERS20PP50MB	20mm x 50m	Black	16.8mm	20mm
ERS20PP100MB	20mm x 100m	Black	16.8mm	20mm
ERS20PP10MW	20mm x 10m	White	16.8mm	20mm
ERS20PP25MW	20mm x 25m	White	16.8mm	20mm
ERS20PP50MW	20mm x 50m	White	16.8mm	20mm
ERS20PP100MW	20mm x 100m	White	16.8mm	20mm
ERS25PP10MB	25mm x 10m	Black	19.9mm	25mm
ERS25PP25MB	25mm x 25m	Black	19.9mm	25mm
ERS25PP50MB	25mm x 50m	Black	19.9mm	25mm
ERS25PP100MB	25mm x 100m	Black	19.9mm	25mm
ERS25PP10MW	25mm x 10m	White	19.9mm	25mm
ERS25PP25MW	25mm x 25m	White	19.9mm	25mm
ERS25PP50MW	25mm x 50m	White	19.9mm	25mm
ERS25PP100MW	25mm x 100m	White	19.9mm	25mm
ERS32PP10MB	32mm x 10m	Black	26.5mm	32mm
ERS32PP25MB	32mm x 25m	Black	26.5mm	32mm
ERS32PP50MB	32mm x 50m	Black	26.5mm	32mm
ERS40PP25MB	40mm x 25m	Black	32.4mm	40mm
ERS50PP25MB	50mm x 25m	Black	41.2mm	50mm

## Polypropylene Glands

- Complete with locknuts

**10 PACK**

PART NO	SIZE	COLOUR
ERSPP16G	16mm	Black
ERSPP20G	20mm	Black
ERSPP25G	25mm	Black
ERSPP20GW	20mm	White
ERSPP25GW	25mm	White
ERSPP32G	32mm	Black
ERSPP40G	40mm	Black
ERSPP50G	50mm	Black



## Polypropylene Couplers

**10 PACK**

PART NO	SIZE	COLOUR
ERS20PPC	20mm	Opaque
ERS25PPC	25mm	Opaque
ERS32PPC	32mm	Opaque
ERS40PPC	40mm	Opaque
ERS50PPC	50mm	Opaque



# eris PVC Conduit

## Industrial

Available in a diameter range of 16-63mm and lengths of 10-30m

- Ingress protection: IP65
- Temperature range -20°C to +60°C
- Flame retardant - self extinguishing within 30 seconds (UL94VO)
- UL recognised

PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERS16PVC10MB	16mm x 10m	Black	12mm	16.4mm
ERS16PVC30MB	16mm x 30m	Black	12mm	16.4mm
ERS20PVC10MB	20mm x 10m	Black	16mm	20.7mm
ERS20PVC30MB	20mm x 30m	Black	16mm	20.7mm
ERS25PVC10MB	25mm x 10m	Black	22mm	27.7mm
ERS25PVC30MB	25mm x 30m	Black	22mm	27.7mm
ERS32PVC10MB	32mm x 10m	Black	28mm	33.5mm
ERS32PVC30MB	32mm x 30m	Black	28mm	33.5mm
ERS40PVC10MB	40mm x 10m	Black	35mm	41mm
ERS40PVC30MB	40mm x 30m	Black	35mm	41mm
ERS50PVC10MB	50mm x 10m	Black	40mm	46.4mm
ERS50PVC30MB	50mm x 30m	Black	40mm	46.4mm
ERS63PVC10MB	63mm x 10m	Black	50mm	57.2mm
ERS63PVC30MB	63mm x 30m	Black	50mm	57.2mm



## PVC Glands

- Complete with locknuts

PART NO	SIZE	COLOUR
ERSPVC16G	16mm	Black
ERSPVC20G	20mm	Black
ERSPVC25G	25mm	Black
ERSPVC32G	32mm	Black
ERSPVC40G	40mm	Black
ERSPVC50G	50mm	Black
ERSPVC63G	63mm	Black





## Industrial Nylon Conduit

Available in a diameter range of 16-50mm and lengths of 25 and 50m

- Ingress protection: Up to IP68
- Temperature range -40°C to +120°C
- Flame retardant
- UL recognised
- Halogen free

PART NO	SIZE	COLOUR	INT. Ø	EXT. Ø
ERS16NY50MB	16mm x 50m	Black	13mm	16mm
ERS20NY50MB	20mm x 50m	Black	17mm	21.2mm
ERS25NY50MB	25mm x 50m	Black	23.5mm	28.4mm
ERS32NY25MB	32mm x 25m	Black	29.4mm	34.5mm
ERS40NY25MB	40mm x 25m	Black	36.7mm	42.2mm
ERS50NY25MB	50mm x 25m	Black	48.1mm	54mm



## Nylon Glands

- Ingress protection: IP68
- Complete with locknuts

**10  
PACK**

PART NO	SIZE	COLOUR
ERSNY16G	16mm	Black
ERSNY20G	20mm	Black
ERSNY25G	25mm	Black
ERSNY32G	32mm	Black
ERSNY40G	40mm	Black
ERSNY50G	50mm	Black



## Nylon Clips

PART NO	SIZE	COLOUR
ERS16NYCP	16mm	Black
ERS20NYCP	20mm	Black
ERS25NYCP	25mm	Black
ERS32NYCP	32mm	Black
ERS40NYCP	40mm	Black
ERS50NYCP	50mm	Black

**10  
PACK**



## Nylon 90° Elbow Gland

- Ingress protection: IP65
- Complete with locknuts



PART NO	SIZE	COLOUR	PACK QTY
ERS16NYEG	16mm	Black	10
ERS20NYEG	20mm	Black	10
ERS25NYEG	25mm	Black	10
ERS32NYEG	32mm	Black	5
ERS40NYEG	40mm	Black	2
ERS50NYEG	50mm	Black	2





## Galvanised Steel Conduit

Available in a diameter range of 16-50mm and lengths of 10-50m  
 • Ingress protection: IP40 • Temperature range -50°C to +300°C

PART NO	SIZE	INT. Ø	EXT. Ø
ERS16GALV10M	16mm x 10m	13mm	16mm
ERS16GALV30M	16mm x 30m	13mm	16mm
ERS16GALV50M	16mm x 50m	13mm	16mm
ERS20GALV10M	20mm x 10m	17mm	20.5mm
ERS20GALV30M	20mm x 30m	17mm	20.5mm
ERS20GALV50M	20mm x 50m	17mm	20.5mm
ERS25GALV10M	25mm x 10m	21mm	25mm
ERS25GALV30M	25mm x 30m	21mm	25mm
ERS25GALV50M	25mm x 50m	21mm	25mm
ERS32GALV10M	32mm x 10m	28.5mm	32mm
ERS32GALV30M	32mm x 30m	28.5mm	32mm
ERS32GALV50M	32mm x 50m	28.5mm	32mm
ERS50GALV10M	50mm x 10m	48.5mm	53mm
ERS50GALV20M	50mm x 20m	48.5mm	53mm

## PVC Covered Galvanised Steel Conduit

Available in a diameter range of 16-50mm and lengths of 10-50m  
 • Ingress protection: IP54 • Temperature range -20°C to +80°C



PART NO	SIZE	INT. Ø	EXT. Ø
ERS16GPVC10M	16mm x 10m	13mm	16mm
ERS16GPVC30M	16mm x 30m	13mm	16mm
ERS16GPVC50M	16mm x 50m	13mm	16mm
ERS20GPVC10M	20mm x 10m	17mm	21.5mm
ERS20GPVC30M	20mm x 30m	17mm	21.5mm
ERS20GPVC50M	20mm x 50m	17mm	21.5mm
ERS25GPVC10M	25mm x 10m	21mm	26mm
ERS25GPVC30M	25mm x 30m	21mm	26mm
ERS25GPVC50M	25mm x 50m	21mm	26mm
ERS32GPVC10M	32mm x 10m	28.5mm	34mm
ERS32GPVC30M	32mm x 30m	28.5mm	34mm
ERS32GPVC50M	32mm x 50m	28.5mm	34mm
ERS50GPVC10M	50mm x 10m	48.5mm	55mm
ERS50GPVC20M	50mm x 20m	48.5mm	55mm

## Nickel Plated Brass Fixed Glands

10  
PACK

PART NO	SIZE	TREAD
ERSFM16G	16mm	16mm
ERSFM16/20	16mm	20mm
ERSFM20G	20mm	20mm
ERSFM25G	25mm	25mm
ERSFM32G	32mm	32mm
ERSFM50G	50mm	50mm



## Nickel Plated Brass Swivel Glands

10  
PACK

PART NO	SIZE	TREAD
ERSSM16G	16mm	16mm
ERSSM16/20	16mm	20mm
ERSSM20G	20mm	20mm
ERSSM25G	25mm	25mm
ERSSM32G	32mm	32mm
ERSSM50G	50mm	50mm



## Nickel Plated Brass Locknut

10  
PACK

PART NO	SIZE
ERSLN16NP	16mm
ERSLN20NP	20mm
ERSLN25NP	25mm
ERSLN32NP	32mm
ERSLN40NP	40mm
ERSLN50NP	50mm



## LPC-HG system Hygienic Range



### Conduit - LPC-WFG

**Construction:** Smooth bore, smooth cover, helically formed PVC, flexible conduit with spiral uPVC reinforcement and flexible PVC jacket.

**Colour:** White.

**Typical Applications:** Suitable for repeat contact with all food types, excluding fatty foods, at full temperature.

The flexible PVC is manufactured from FDA approved ingredients and has been independently tested to European Food regulation 10/2011.

PART NO	NOMINAL SIZE (mm)	REEL LENGTH (m)	OUTSIDE DIAMETER (mm)	INSIDE DIAMETER (mm)	MIN INSIDE BEND RADIUS (mm)
LPCWFG16	16	30	17.8	12.6	50
LPCWFG20	20	10, 30	21.1	16.0	70
LPCWFG25	25	10, 30	26.4	21.0	90
LPCWFG32	32	10, 30	33.1	26.5	140
LPCWFG40	40	10, 30	41.8	35.4	190
LPCWFG50	50	10, 30	47.9	40.0	240
LPCWFG63	63	10, 30	59.7	51.3	270

Please state part number and reel length when ordering

### Conduit - LPC-BUFG

**Construction:** Smooth bore, smooth cover, helically formed PVC, flexible conduit with spiral uPVC reinforcement and flexible PVC jacket.

**Colour:** Blue.

**Typical Applications:** Suitable for repeat contact with all food types, excluding fatty foods, at full temperature.

The flexible PVC is manufactured from FDA approved ingredients and has been independently tested to European Food regulation 10/2011.

PART NO	NOMINAL SIZE (mm)	REEL LENGTH (m)	OUTSIDE DIAMETER (mm)	INSIDE DIAMETER (mm)	MIN INSIDE BEND RADIUS (mm)
LPCBUFG16	16	30	17.8	12.6	50
LPCBUFG20	20	10, 30	21.1	16.0	70
LPCBUFG25	25	10, 30	26.4	21.0	90
LPCBUFG32	32	10, 30	33.1	26.5	140
LPCBUFG40	40	10, 30	41.8	35.4	190
LPCBUFG50	50	10, 30	47.9	40.0	240
LPCBUFG63	63	10, 30	59.7	51.3	270

Please state part number and reel length when ordering

### Conduit - LPC-GFG

**Construction:** Smooth bore, smooth cover, helically formed PVC, flexible conduit with spiral uPVC reinforcement and flexible PVC jacket.

**Colour:** Grey.

**Typical Applications:** Suitable for repeat contact with all food types, excluding fatty foods, at full temperature.

The flexible PVC is manufactured from FDA approved ingredients and has been independently tested to European Food regulation 10/2011.

PART NO	NOMINAL SIZE (mm)	REEL LENGTH (m)	OUTSIDE DIAMETER (mm)	INSIDE DIAMETER (mm)	MIN INSIDE BEND RADIUS (mm)
LPCGFG16	16	30	17.8	12.6	50
LPCGFG20	20	10, 30	21.1	16.0	70
LPCGFG25	25	10, 30	26.4	21.0	90
LPCGFG32	32	10, 30	33.1	26.5	140
LPCGFG40	40	10, 30	41.8	35.4	190
LPCGFG50	50	10, 30	47.9	40.0	240
LPCGFG63	63	10, 30	59.7	51.3	270

Please state part number and reel length when ordering

### Fittings - FCC-SS

**Stainless steel (316L) P Clips**

• P clips to support conduit



PART NO	NOMINAL SIZE (mm)
FCC16-SS	16
FCC20-SS	20
FCC25-SS	25
FCC32-SS	32
FCC40-SS	40
FCC50-SS	50
FCC63-SS*	63

### Ordering Notes

\* Indicates parts made to order on request and may be subject to MOQ and lead time

**Available on request:**

- Additional sizes
- Alternative threads

## Properties

- Smooth, wipe clean surface
- Accepts some torsional movement
- IP rating: IP66, IP67, IP68 and IP69
- Temperature range -20°C to +90°C
- C-FG fitting designed in accordance with EN1672-2 and EN ISO 14159
- C-FG fitting manufactured from stainless steel grade 316L
- Compatible with Hygienic Round Box



## Fittings



### C-FG - External Thread Stainless Steel Food Grade

Multipart compression fitting designed using principles given in EN1672-2 and EN ISO 14159. Manufactured from 316L stainless steel, complete with polyester elastomer compression seals to prevent ingress of food or bacteria. Can be used for knockout or threaded entries as fitting rotates until tightened. ST fittings are designed for use with Round Boxes. They have a shorter thread to maximise space within the box or enclosure.



EXT METRIC	NOMINAL SIZE (mm)	ST FITTING PART NO
LPC16-M16-C-FG	16	-
LPC20-M20-C-FG	20	LPC20-M20ST-C-FG
LPC25-M25-C-FG	25	-
LPC32-M32-C-FG	32	-
LPC40-M40-C-FG	40	-
LPC50-M50-C-FG	50	-
LPC63-M63-C-FG*	63	-

## Locknuts

### Stainless steel (316L) locknuts

Hexagonal locknut to secure fitting.

METRIC THREAD PART NO	NOMINAL SIZE (mm)
SS-M16	16
SS-M20	20
SS-M25	25
SS-M32	32
SS-M40	40
SS-M50	50
SS-M63*	63



## I-Pack

This new range of LPC-FG conduits offers a smooth, easy to clean surface making it ideal for food and beverage, machinery and OEMS, Healthcare and Pharmaceutical applications. Featuring a smooth inner bore, the LPC-FG makes it easy to run cables through the conduit, simplifying installation. The I-Pack consists of 3 metres of conduit, 2 Hygienic fittings and 2 Stainless Steel Locknuts.

- Hygienic design
- Smooth finish
- High IP rating
- Corrosion resistant
- High chemical and thermal resistance

- Simplistic ordering - one part number
- Easy Storage - short length coiled for space saving
- Ready to use - all components to create a system

## 20mm I-Pack



### I-PACKBUFG20

- 3m x LPCBUFG20 Conduit
- 2 x LPC-C-FG Fittings
- 2 x SS-M20 Locknuts



### I-PACKWFG20

- 3m x LPCWFG20 Conduit
- 2 x LPC-C-FG Fittings
- 2 x SS-M20 Locknuts

## 25mm I-Pack



### I-PACKBUFG25

- 3m x LPCBUFG25 Conduit
- 2 x LPC-C-FG Fittings
- 2 x SS-M25 Locknuts



### I-PACKWFG25

- 3m x LPCWFG25 Conduit
- 2 x LPC-C-FG Fittings
- 2 x SS-M25 Locknuts



PART NO (BLUE)	PART NO (WHITE)	NOMINAL SIZE (mm)
I-PACKBUFG20	I-PACKWFG20	20
I-PACKBUFG25	I-PACKWFG25	25





## LTP-FG system LTBRDP-FG system LTPSS-FG system



### Conduit - LTP-FG

**Construction:** Galvanised steel, helically wound, flexible conduit with smooth White or Blue PVC cover.

**Typical Applications:** Suitable for repeat contact with all food types, excluding fatty foods, at full temperature. The flexible PVC is manufactured from FDA approved ingredients and has been independently tested to European Food regulation 10/2011.



PART NO	NOMINAL SIZE (mm)	REEL LENGTH (m)	OUTSIDE DIAMETER (mm)	INSIDE DIAMETER (mm)
LTPWFG16	16	25	17.8	12.6
LTPWFG20	20	10, 25	21.1	16.0
LTPWFG25	25	10, 25	26.4	21.0
LTPWFG32	32	10, 25	33.1	26.5
LTPWFG40	40	10	41.8	35.4
LTPWFG50+	50	10	47.9	40.4
LTPWFG63+	63	10	59.7	51.6

Part number for White version shown above. See ordering notes for colour and length.

Please state part number and reel length when ordering

### Conduit - LTBRDP-FG

**Construction:** Galvanised steel, helically wound, flexible conduit with galvanised steel braid and a White or Blue PVC smooth cover.

**Typical Applications:** Suitable for applications where high corrosion resistance and liquid tight are a requirement combined with EMC screening.

The flexible PVC is manufactured from FDA approved ingredients and has been independently tested to European Food regulation 10/2011.



PART NO	NOMINAL SIZE (mm)	REEL LENGTH (m)	OUTSIDE DIAMETER (mm)	INSIDE DIAMETER (mm)
LTBRDPWFG20	20	10, 25	21.1	16.0
LTBRDPWFG25	25	10, 25	26.4	21.0
LTBRDPWFG32	32	10, 25	33.1	26.5
LTBRDPWFG40	40	10	41.8	35.4
LTBRDPWFG50+	50	10	47.9	40.4

Please state part number and reel length when ordering

Part number for White version shown above. See ordering notes for colour and length.



### Conduit - LTPSS-FG

**Construction:** Stainless steel (316L), helically wound, flexible PVC Blue smooth cover.

**Typical Applications:** Suitable for repeat contact with all food types, excluding fatty foods, at full temperature.

The PVC is manufactured from FDA approved ingredients and has been independently tested to European Food regulation 10/2011.



PART NO	NOMINAL SIZE (mm)	REEL LENGTH (m)	OUTSIDE DIAMETER (mm)	INSIDE DIAMETER (mm)
LTPSSBUFG16	16	25	17.8	12.6
LTPSSBUFG20	20	10, 25	21.1	16.0
LTPSSBUFG25	25	10, 25	26.4	21.0
LTPSSBUFG32	32	10, 25	33.1	26.5
LTPSSBUFG40	40	10	41.8	35.4
LTPSSBUFG50+	50	10	47.9	40.4

Please state part number and reel length when ordering

See ordering notes for length.

## Ordering Notes

- For Blue cover substitute W for BU eg. LTPBUFG20 or LTPBRDPBUFG20 for 20mm size
- Add reel length eg: LTPWFG16-25M for 25m reel

\* Indicates parts made to order on request and may be subject to MOQ and lead time  
+ Double interlock section

#### Available on request:

- Longer lengths
- Cut lengths and assemblies
- Additional sizes

## Properties

- Hygienic design in accordance with EN1672-2 & EN ISO 14159
- Smooth finish eliminates build up of bacteria and micro-organisms
- High IP rating
- IP66, IP67, IP68 and IP69
- Temperature range -20°C to +105°C
- Corrosion resistance Material type (SS316L)
- High chemical and thermal resistance
- Resistant to chemicals and cleaning agents
- Fewer components
- Ease of assembly and integrated barrier seal to prevent contamination
- Compatible with Hygienic Round Box



## Fittings



### C-FG - External Thread Stainless Steel Food Grade

Multipart compression fitting designed using principles given in EN1672-2 and EN ISO 14159. Manufactured from 316L stainless steel, complete with polyester elastomer compression seals to prevent ingress of food or bacteria. Can be used for knockout or threaded entries as fitting rotates until tightened. ST fittings are designed for use with Round Boxes. They have a shorter thread to maximise space within the box or enclosure.



EXT METRIC	NOMINAL SIZE (mm)	ST FITTING PART NO
LTP16-M16-C-FG	16	-
LTP20-M20-C-FG	20	LTP20-M20ST-C-FG
LTP25-M25-C-FG	25	-
LTP32-M32-C-FG	32	-
LTP40-M40-C-FG	40	-
LTP50-M50-C-FG	50	-
LTP63-M63-C-FG*	63	-

## Locknuts

### Stainless Steel (316L) Locknuts

Hexagonal locknut to secure fitting.

METRIC THREAD PART NO	NOMINAL SIZE (mm)
SS-M16	16
SS-M20	20
SS-M25	25
SS-M32	32
SS-M40	40
SS-M50	50
SS-M63*	63



## FCC-SS

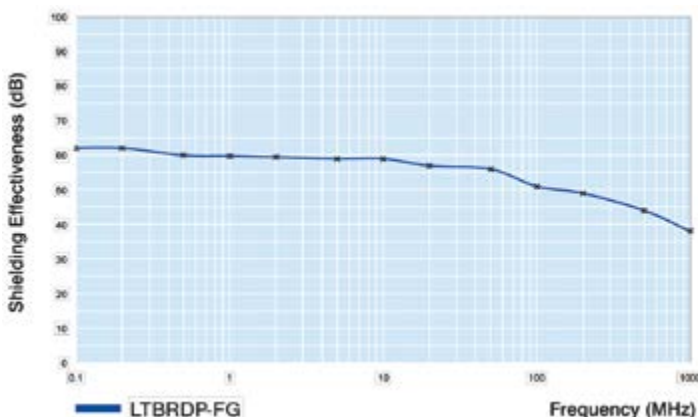
### Stainless Steel (316L) P Clips

P clip to support conduit.

METRIC THREAD NO	NOMINAL SIZE (mm)
FCC16-SS	16
FCC20-SS	20
FCC25-SS	25
FCC32-SS	32
FCC40-SS	40
FCC50-SS	50
FCC63-SS*	63



## EMC Screening Performance



## CABLE & CABLE MANAGEMENT • INDUSTRIAL PLUGS & SOCKETS

ERIS offers a comprehensive range of industrial plugs and sockets ranging from 16A to 125A to suit all environments and applications. All products are RoHS compliant and are produced strictly according to international standard IEC 60309-1, IEC 60309-2.

ERIS Plugs and sockets are manufactured to be used in a wide variety of industry from Petroleum and Chemical industry, quarry plants, airports, building sites, processing industry, water and sewerage plants, hotel, ports and mining.

The ERIS plugs and sockets are corrosion and impact resistant, IP rated – sealed against levels of dust and water ingress. Products have an operating temperature range of -25°C to 50°C.

All products have an operating voltage up to 690V AC in varying pin configurations and are also colour coded to identify operation voltage.



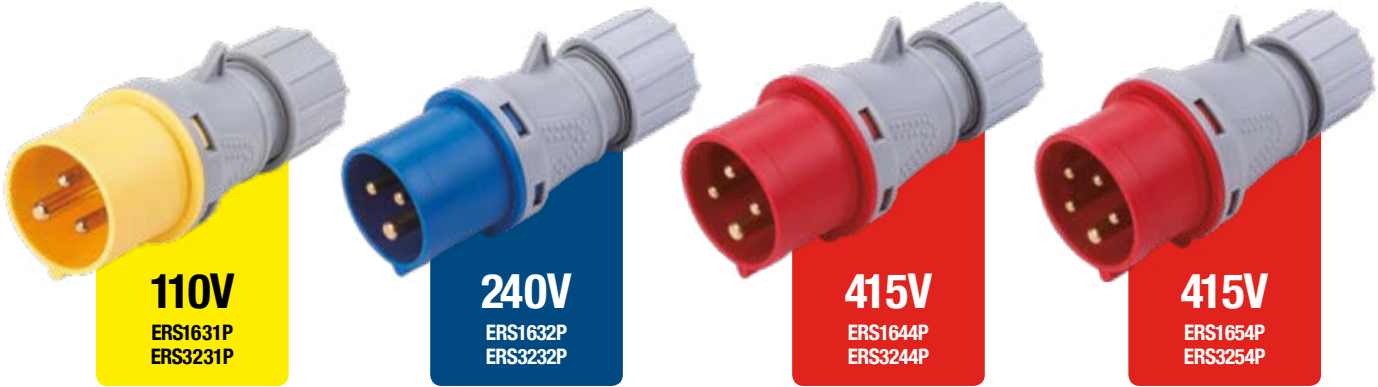
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Industrial

## IP44 Industrial Plugs 16A-32A



PART NO	DESCRIPTION
 ERS1631P	16A 2P+E 110V
 ERS1632P	16A 2P+E 240V
 ERS1644P	16A 3P+E 415V
 ERS1654P	16A 3P+N+E 415V

PART NO	DESCRIPTION
 ERS3231P	32A 2P+E 110V
 ERS3232P	32A 2P+E 240V
 ERS3244P	32A 3P+E 415V
 ERS3254P	32A 3P+N+E 415V

Available in the following pin options:

3 Pin: 2P+E



4 Pin: 3P+E











5 Pin: 3P+N+E



## IP44 Industrial Connectors 16A-32A



PART NO	DESCRIPTION
 ERS1631C	16A 2P+E 110V
 ERS1632C	16A 2P+E 240V
 ERS1644C	16A 3P+E 415V
 ERS1654C	16A 3P+N+E 415V

PART NO	DESCRIPTION
 ERS3231C	32A 2P+E 110V
 ERS3232C	32A 2P+E 240V
 ERS3244C	32A 3P+E 415V
 ERS3254C	32A 3P+N+E 415V



## IP67 Industrial Plugs 16A-32A

Industrial



PART NO	DESCRIPTION
ERS1631P7	16A 2P+E 110V
ERS1632P7	16A 2P+E 240V
ERS1644P7	16A 3P+E 415V
ERS1654P7	16A 3P+N+E 415V

PART NO	DESCRIPTION
ERS3231P7	32A 2P+E 110V
ERS3232P7	32A 2P+E 240V
ERS3244P7	32A 3P+E 415V
ERS3254P7	32A 3P+N+E 415V

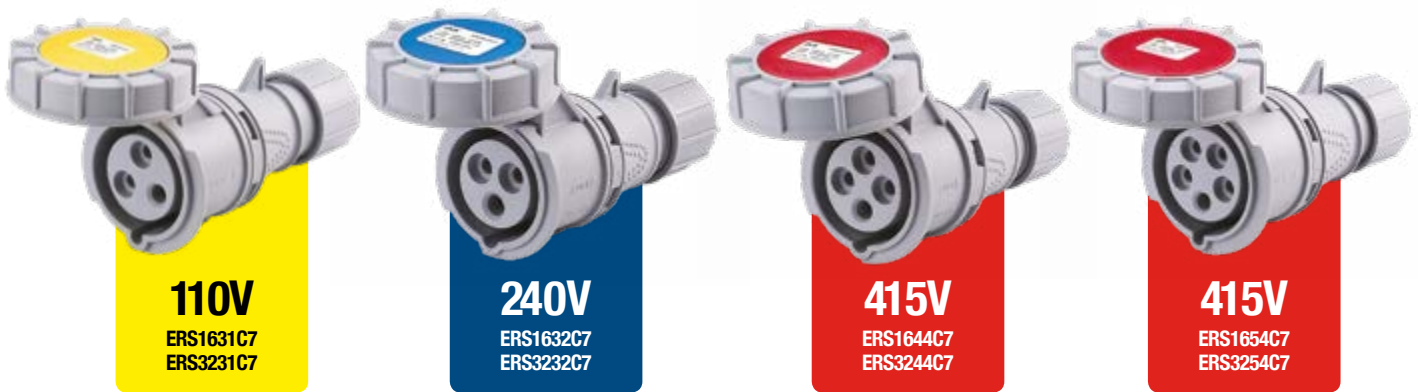
Available in the following pin options:

3 Pin: 2P+E

4 Pin: 3P+E

5 Pin: 3P+N+E

## IP67 Industrial Connectors 16A-32A



PART NO	DESCRIPTION
ERS1631C7	16A 2P+E 110V
ERS1632C7	16A 2P+E 240V
ERS1644C7	16A 3P+E 415V
ERS1654C7	16A 3P+N+E 415V

PART NO	DESCRIPTION
ERS3231C7	32A 2P+E 110V
ERS3232C7	32A 2P+E 240V
ERS3244C7	32A 3P+E 415V
ERS3254C7	32A 3P+N+E 415V



## IP67 Industrial Plugs 63A-125A

Industrial



PART NO	DESCRIPTION
ERS6332P7	63A 2P+E 240V
ERS6344P7	63A 3P+E 415V
ERS6354P7	63A 3P+N+E 415V
ERS12544P7	125A 3P+E 415V
ERS12554P7	125A 3P+N+E 415V

Available in the following pin options:

3 Pin: 2P+E



4 Pin: 3P+E



5 Pin: 3P+N+E



## IP67 Industrial Connectors 63A-125A



PART NO	DESCRIPTION
ERS6332C7	63A 2P+E 240V
ERS6344C7	63A 3P+E 415V
ERS6354C7	63A 3P+N+E 415V

PART NO	DESCRIPTION
ERS12544C7	125A 3P+E 415V
ERS12554C7	125A 3P+N+E 415V





Industrial

## IP44 Industrial Surface Sockets 16A-32A



PART NO	DESCRIPTION
ERS1631S	16A 2P+E 110V
ERS1632S	16A 2P+E 240V
ERS1644S	16A 3P+E 415V
ERS1654S	16A 3P+N+E 415V

PART NO	DESCRIPTION
ERS3231S	32A 2P+E 110V
ERS3232S	32A 2P+E 240V
ERS3244S	32A 3P+E 415V
ERS3254S	32A 3P+N+E 415V

Available in the following pin options:

3 Pin: 2P+E



4 Pin: 3P+E



5 Pin: 3P+N+E



## IP67 Industrial Surface Sockets 16A-32A



PART NO	DESCRIPTION
ERS1631S7	16A 2P+E 110V
ERS1632S7	16A 2P+E 240V
ERS1644S7	16A 3P+E 415V
ERS1654S7	16A 3P+N+E 415V




PART NO	DESCRIPTION
ERS3231S7	32A 2P+E 110V
ERS3232S7	32A 2P+E 240V
ERS3244S7	32A 3P+E 415V
ERS3254S7	32A 3P+N+E 415V





Industrial

## IP67 Industrial Surface Sockets 63A-125A



PART NO	DESCRIPTION
 ERS6332S7	63A 2P+E 240V
 ERS6344S7	63A 3P+E 415V
 ERS6354S7	63A 3P+N+E 415V

PART NO	DESCRIPTION
 ERS12544S7	125A 3P+E 415V
 ERS12554S7	125A 3P+N+E 415V

Available in the following pin options:

3 Pin: 2P+E



4 Pin: 3P+E







5 Pin: 3P+N+E






**DIMENSIONS**  
PAGE 316

## IP44 Horizontal Switch Sockets 16A-32A



PART NO	DESCRIPTION
 ERS1631HSS	16A 2P+E 110V
 ERS1632HSS	16A 2P+E 240V
 ERS1644HSS	16A 3P+E 415V
 ERS1654HSS	16A 3P+N+E 415V



PART NO	DESCRIPTION
 ERS3232HSS	32A 2P+E 240V
 ERS3244HSS	32A 3P+E 415V
 ERS3254HSS	32A 3P+N+E 415V




Industrial

## IP67 Vertical Switch Sockets 16A-32A



PART NO	DESCRIPTION
 ERS1632VSS7	16A 2P+E 240V
 ERS1654VSS7	16A 3P+N+E 415V

PART NO	DESCRIPTION
 ERS3254VSS7	32A 3P+N+E 415V

Available in the following pin options:

3 Pin: 2P+E



4 Pin: 3P+E






5 Pin: 3P+N+E



## IP67 Vertical Switch Sockets 63A



PART NO	DESCRIPTION
 ERS6332VSS7	63A 2P+E 240V
 ERS6344VSS7	63A 3P+E 415V

PART NO	DESCRIPTION
 ERS6354VSS7	63A 3P+N+E 415V





Industrial

## IP44 Surface Appliance Inlet 16A-32A



PART NO	DESCRIPTION
ERS1631SAI	16A 2P+E 110V
ERS1632SAI	16A 2P+E 240V
ERS1644SAI	16A 3P+E 415V
ERS1654SAI	16A 3P+N+E 415V

PART NO	DESCRIPTION
ERS3232SAI	32A 2P+E 240V
ERS3244SAI	32A 3P+E 415V
ERS3254SAI	32A 3P+N+E 415V

Available in the following pin options:

3 Pin: 2P+E



4 Pin: 3P+E



5 Pin: 3P+N+E



## IP44 Panel Socket Angled 16A



PART NO	DESCRIPTION
ERS1631PSA	16A 2P+E 110V

PART NO	DESCRIPTION
ERS1632PSA	16A 2P+E 240V

## IP44 3 Way Splitters 16A



PART NO	DESCRIPTION
ERS1631SP	16A 2P+E 110V

PART NO	DESCRIPTION
ERS1632SP	16A 2P+E 240V

# CABLE & CABLE MANAGEMENT • INDUSTRIAL PLUGS & SOCKETS










IP44 PLUGS 16A-32A	PART NO	DESCRIPTION	COMPATIBLE WITH	IP44 CONNECTORS	IP67 CONNECTORS	IP44 SURFACE SOCKETS
	ERS1631P	ERIS IP44 PLUG 16A 2P+E 110V		ERS1631C	ERS1631S	
	ERS3231P	ERIS IP44 PLUG 32A 2P+E 110V		ERS3231C	ERS3231S	
	ERS1632P	ERIS IP44 PLUG 16A 2P+E 240V		ERS1632C	ERS1632S	
	ERS3232P	ERIS IP44 PLUG 32A 2P+E 240V		ERS3232C	ERS3232S	
	ERS1644P	ERIS IP44 PLUG 16A 3P+E 415V		ERS1644C	ERS1644S	
	ERS3244P	ERIS IP44 PLUG 32A 3P+E 415V		ERS3244C	ERS3244S	
	ERS1654P	ERIS IP44 PLUG 16A 3P+N+E 415V		ERS1654C	ERS1654S	
	ERS3254P	ERIS IP44 PLUG 32A 3P+N+E 415V		ERS3254C	ERS3254S	












IP67 PLUGS 16A-32A	PART NO	DESCRIPTION	COMPATIBLE WITH	IP44 CONNECTORS	IP67 CONNECTORS	IP44 SURFACE SOCKETS
	ERS1631P7	ERIS IP67 PLUG 16A 2P+E 110V		ERS1631C7		
	ERS3231P7	ERIS IP67 PLUG 32A 2P+E 110V		ERS3231C7		
	ERS1632P7	ERIS IP67 PLUG 16A 2P+E 240V		ERS1632C7		
	ERS3232P7	ERIS IP67 PLUG 32A 2P+E 240V		ERS3232C7		
	ERS1644P7	ERIS IP67 PLUG 16A 3P+E 415V		ERS1644C7		
	ERS3244P7	ERIS IP67 PLUG 32A 3P+E 415V		ERS3244C7		
	ERS1654P7	ERIS IP67 PLUG 16A 3P+N+E 415V		ERS1654C7		
ERS3254P7	ERIS IP67 PLUG 32A 3P+N+E 415V	ERS3254C7				









IP67 PLUGS 63A-125A	PART NO	DESCRIPTION	COMPATIBLE WITH	IP44 CONNECTORS	IP67 CONNECTORS	IP44 SURFACE SOCKETS
	ERS6332P7	ERIS IP67 PLUG 63A 2P+E 240V		ERS6332C7		
	ERS6344P7	ERIS IP67 PLUG 63A 3P+E 415V		ERS6344C7		
	ERS12544P7	ERIS IP67 PLUG 125A 3P+E 415V		ERS12544C7		
	ERS6354P7	ERIS IP67 PLUG 63A 3P+N+E 415V		ERS6354C7		
ERS12554P7	ERIS IP67 PLUG 125A 3P+N+E 415V	ERS12554C7				








IP44 CONNECTORS 16A-32A	PART NO	DESCRIPTION	COMPATIBLE WITH	IP44 PLUGS	IP67 PLUGS	IP44 SURFACE SOCKETS
	ERS1631C	ERIS IP44 CONNECTOR 16A 2P+E 110V		ERS1631P		
	ERS3231C	ERIS IP44 CONNECTOR 32A 2P+E 110V		ERS3231P		
	ERS1632C	ERIS IP44 CONNECTOR 16A 2P+E 240V		ERS1632P		
	ERS3232C	ERIS IP44 CONNECTOR 32A 2P+E 240V		ERS3232P		
	ERS1644C	ERIS IP44 CONNECTOR 16A 3P+E 415V		ERS1644P		
	ERS3244C	ERIS IP44 CONNECTOR 32A 3P+E 415V		ERS3244P		
	ERS1654C	ERIS IP44 CONNECTOR 16A 3P+N+E 415V		ERS1654P		
ERS3254C	ERIS IP44 CONNECTOR 32A 3P+N+E 415V	ERS3254P				

IP44 3 WAY SPLITTER 16A	PART NO	DESCRIPTION	COMPATIBLE WITH	IP44 PLUGS	IP67 CONNECTORS	IP44 SURFACE SOCKETS
	ERS1631SP	ERIS IP44 3 WAY SPLITTER 16A 2P+E 110V		ERS1631P		
	ERS1632SP	ERIS IP44 3 WAY SPLITTER 16A 2P+E 240V		ERS1632P		

IP67 SURFACE SOCKETS	IP44 PANEL SOCKETS ANGLED	IP44 HORIZONTAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP44 SURFACE APPLIANCE INLET
	ERS1631PSA 	ERS1631HSS 			
	ERS1632PSA 	ERS1632HSS 			
		ERS3232HSS 			
		ERS1644HSS 			
		ERS3244HSS 			
		ERS1654HSS 			
		ERS3254HSS 			

IP67 SURFACE SOCKETS	IP44 PANEL SOCKETS ANGLED	IP44 HORIZONTAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP44 SURFACE APPLIANCE INLET
ERS1631S7 					
ERS3231S7 					
ERS1632S7 			ERS1632VSS7 		
ERS3232S7 					
ERS1644S7 					
ERS3244S7 					
ERS1654S7 			ERS1654VSS7 		
ERS3254S7 			ERS3254VSS7 		

IP67 SURFACE SOCKETS	IP44 PANEL SOCKETS ANGLED	IP44 HORIZONTAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP44 SURFACE APPLIANCE INLET
ERS6332S7 				ERS6332VSS7 	
ERS6344S7 				ERS6344VSS7 	
ERS12544S7 					
ERS6354S7 				ERS6354VSS7 	
ERS12554S7 					

IP67 SURFACE SOCKETS	IP44 PANEL SOCKETS ANGLED	IP44 HORIZONTAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP44 SURFACE APPLIANCE INLET
					ERS1631SAI 
					ERS1632SAI 
					ERS3232SAI 
					ERS1644SAI 
					ERS3244SAI 
					ERS1654SAI 
					ERS3254SAI 





IP67 SURFACE SOCKETS	IP44 PANEL SOCKETS ANGLED	IP44 HORIZONTAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP67 VERTICAL SWITCH SOCKETS	IP44 SURFACE APPLIANCE INLET









## IP44 Industrial Plugs 16A-32A











PART NO	DESCRIPTION
 13100Y	16A 2P+E 110V
 13200Y	16A 2P+E 240V
 13300Y	16A 3P+E 415V
 13301Y	16A 3P+N+E 415V

PART NO	DESCRIPTION
 13102Y	32A 2P+E 110V
 13203Y	32A 2P+E 240V
 13302Y	32A 3P+E 415V
 13303Y	32A 3P+N+E 415V

## IP44 Industrial Connectors 16A-32A







PART NO	DESCRIPTION
 23100Y	16A 2P+E 110V
 23200Y	16A 2P+E 240V
 23300Y	16A 3P+E 415V
 23301Y	16A 3P+N+E 415V

PART NO	DESCRIPTION
 23102Y	32A 2P+E 110V
 23203Y	32A 2P+E 240V
 23302Y	32A 3P+E 415V
 23303Y	32A 3P+N+E 415V

## IP67 Industrial Plugs & Connectors 63A







PART NO	DESCRIPTION
 9159Y	Plug 63A 2P+E 240V
 9059Y	Connector 63A 2P+E 240V
 14305Y	Plug 63A 3P+N+E 415V
 24305Y	Connector 63A 3P+N+E 415V





**Other voltages and pin configurations available on request.**



## IP44 Industrial Surface Sockets 16A-32A











PART NO	DESCRIPTION
 23190Y	16A 2P+E 110V
 23290Y	16A 2P+E 240V
 23390Y	16A 3P+E 415V
 23391Y	16A 3P+N+E 415V

PART NO	DESCRIPTION
 23192Y	32A 2P+E 110V
 23292Y	32A 2P+E 240V
 23392Y	32A 3P+E 415V
 23393Y	32A 3P+N+E 415V

## IP44 Horizontal Switched Interlocked Sockets 16A-32A





PART NO	DESCRIPTION
 3214G4Y	16A 2P+E 110V
 3214B6Y	16A 2P+E 240V
 3314R6Y	16A 3P+E 415V
 3414R6Y	16A 3P+N+E 415V

PART NO	DESCRIPTION
 3234G4Y	32A 2P+E 110V
 3234B6Y	32A 2P+E 240V
 3334R6Y	32A 3P+E 415V
 3434R6Y	32A 3P+N+E 415V

## IP44 Industrial Twin Surface Sockets 16A-32A



PART NO	DESCRIPTION
 TS1134Y	16A 2P+E 110V
 TS1234Y	16A 2P+E 240V



## IP44 Switched Interlocked Socket 16A-32A with RCD



PART NO	DESCRIPTION
16.3214G4RY	16A 2P+E 110V Switched Interlocked Socket includes RCD (30mA)
16.3214B6RY	16A 2P+E 240V Switched Interlocked Socket includes RCD (30mA)
16.3314R6RY	16A 3P+E 415V Switched Interlocked Socket includes RCD (30mA)
16.3414R6RY	16A 3P+N+E 415V Switched Interlocked Socket includes RCD (30mA)
16.3234B6RY	32A 2P+E 240V Switched Interlocked Socket includes RCD (30mA)
16.3334R6RY	32A 3P+E 32A 415V Switched Interlocked Socket includes RCD (30mA)
16.3434R6RY	32A 3P+N+E 415V Switched Interlocked Socket includes RCD (30mA)

## IP67 Switched Interlocked Socket 16A-32A with RCD



PART NO	DESCRIPTION
16.3216G4RY	16A 2P+E 110V Switched Interlock Socket includes RCD (30mA)
16.3216B6RY	16A 2P+E 240V Switched Interlock Socket includes RCD (30mA)
16.3316R6RY	16A 3P+E 415V Switched Interlocked Socket includes RCD (30mA)
16.3416R6RY	16A 3P+N+E 415V Switched Interlocked Socket includes RCD (30mA)
16.3232B6RY	32A 2P+E 240V Switched Interlocked Socket includes RCD (30mA)
16.3332R6RY	32A 3P+E 415V Switched Interlocked Socket includes RCD (30mA)
16.3432R6RY	32A 3P+N+E 415V Switched Interlocked Socket includes RCD (30mA)
16.263B6MTRY	63A 2P+E 240V Switched Interlocked Socket includes RCD (30mA)
16.363R6MTRY	63A 3P+E 415V Switched Interlocked Sockets includes RCD (30mA)
16.463R6MTRY	63A 3P+N+E 415V Switched Interlocked Sockets includes RCD (30mA)



## IP44 Twin Switched Interlocked Socket 16A-32A with RCD









PART NO	DESCRIPTION
TRD1134Y	16A 2P+E 110V includes Top box & RCD (30mA)
TRD1234Y	16A 2P+E 240V includes Top box & RCD (30mA)
TRD1444Y	16A 3P+E 415V includes Top box & RCD (30mA)
TRD1454Y	16A 3P+N+E 415V includes Top box & RCD (30mA)
TRD3134Y	32A 2P+E 110V includes Top box & RCD (30mA)
TRD3234Y	32A 2P+E 240V includes Top box & RCD (30mA)
TRD3444Y	32A 3P+E 415V includes Top box & RCD (30mA)
TRD3454Y	32A 3P+N+E 415V includes Top box & RCD (30mA)





## IP67 Twin Switched Interlocked Socket 16A-32A with RCD

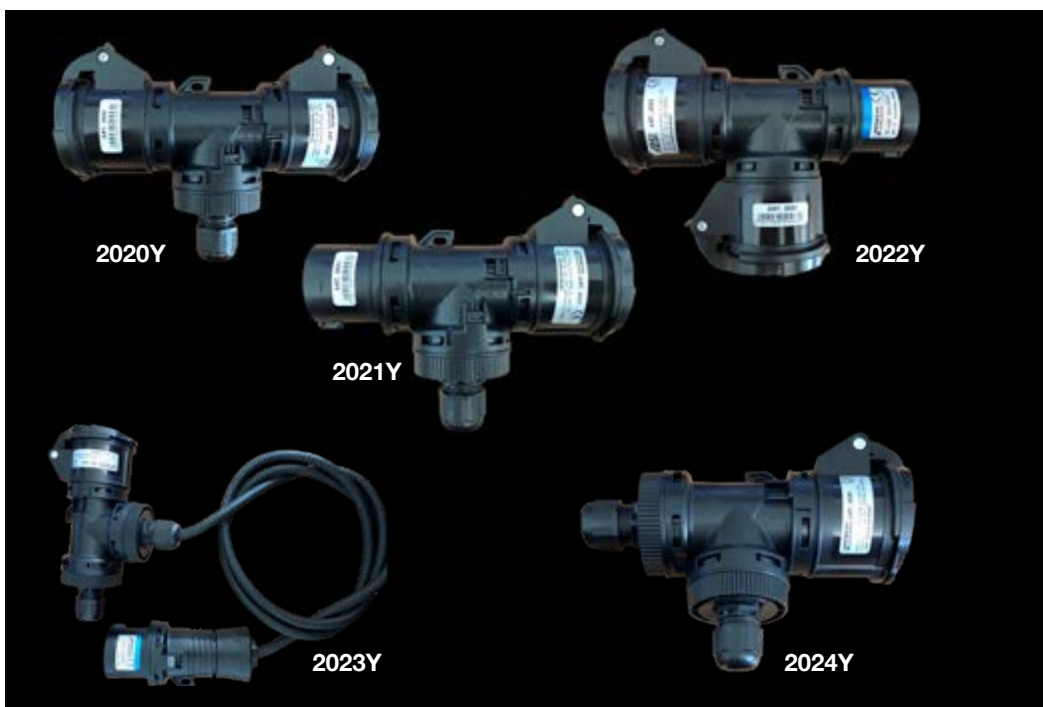


PART NO	DESCRIPTION
 TRD1136Y	16A 2P+E 110V C/W Top box & RCD (30mA)
 TRD1236Y	16A 2P+E 240V C/W Top box & RCD (30mA)
 TRD1446Y	16A 3P+E 415V C/W Top box & RCD (30mA)
 TRD1456Y	16A 3P+N+E 415V C/W Top box & RCD (30mA)
 TRD3136Y	32A 2P+E 110V C/W Top box & RCD (30mA)
 TRD3236Y	32A 2P+E 240V C/W Top box & RCD (30mA)
 TRD3446Y	32A 3P+E 415V C/W Top box & RCD (30mA)
 TRD3456Y	32A 3P+N+E 415V C/W Top box & RCD (30mA)

## T-Power - Making Power Easy to Connect

- IP44
- 16A
- 2P + Earth
- 240V
- Black
- Compact design
- Hanging facility
- High quality
- Quick release gland

PART NO	DESCRIPTION
2020Y	Female in and Female out + Gland
2021Y	Male in and Female out + Gland
2022Y	Male in and 2 Female out
2023Y	Female in 1x Gland out 1x Gland c/w with 1m of cable c/w Plug
2024Y	Female in 2x Glands out





# POWER SOLUTIONS



- 211 Phase Converters
- 212 Power Factor Correction
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- 217 Power Distribution
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- 219 Home Charging

# POWER SOLUTIONS • SINGLE TO THREE PHASE CONVERTERS



## Static Converters

In a home workshop, farm, garage or small business environment there is often a requirement for the operation of machinery driven by three phase induction motors where only a single phase electricity supply is available.

The Transwave Converter provides an artificial means by which a three-phase motor can be operated from a single phase supply thereby offering a cost-effective solution to this dilemma. In most instances, no modification to the machine is necessary.

The Static Converter is designed to operate three phase motors with starting characteristics and duty cycles as generally experienced on machine tool applications (i.e. light to medium duty and relatively constant load conditions). This style of converter is typically used in single operator environments where only one machine is used at a time.

## Operation

The Static Converter is a passive device that depends upon an interaction between the converter and the driven motor (or motors) to induce an artificial third phase.

## Single or Multi-Motor Operation

Any number of motors can be operated simultaneously from a Static Converter provided the converter rating is not exceeded, either on a single motor or multi-motor basis. When considering a Static Converter for the operation of a multi-motor application the use of a three-phase distribution board or similar is recommended. In such instances it is imperative that the largest motor is started first and switched off last.

PART NO	MAX. LOAD MULTI MOTOR	MAX. LOAD SINGLE MOTOR	MIN. LOAD SINGLE MOTOR	DIMENSIONS (H x W x D)	WEIGHT
STC1.1HD	1.1kW/1.5hp	0.75kW/1hp	0.37kW/0.5hp	300 x 460 x 310mm	15kg
STC1.5HD	1.5kW/2hp	1.1kW/1.5hp	0.37kW/0.5hp	300 x 460 x 310mm	17kg
STC2HD	2.2kW/3hp	1.5kW/2hp	0.37kW/0.5hp	300 x 460 x 310mm	25kg
STC3	3kW/4hp	2.2kW/3hp	0.55kW/0.75hp	300 x 460 x 310mm	25kg
STC4	4kW/5.5hp	3kW/4hp	0.75kW/1hp	300 x 460 x 310mm	30kg
STC5	5.5kW/7.5hp	4kW/5.5hp	0.75kW/1hp	350 x 510 x 350mm	40kg
STC7	7.5kW/10hp	5.5kW/7.5hp	0.75kW/1hp	350 x 510 x 350mm	40kg

## Rotary Converters

The Rotary Converter is particularly suited to the multi-motor, multi-operator environment. Multi-motor applications can be accommodated up to the maximum loading of the converter provided that the specified maximum single motor load is not exceeded.

The Rotary Converter is often operated in conjunction with machine tools, however it is also suitable for applications where equipment has a heavy starting load or is subjected to an abnormal surge current. Vehicle Hoists, Compressors, Pumps and Extractor Fans fall into this latter category.



## Operation

All Transwave Converters automatically control the motor starting surge, maintaining the surge until the motor has attained its full running speed irrespective of time taken.

PART NO	MAX. LOAD MULTI MOTOR	MAX. LOAD SINGLE MOTOR	MIN. LOAD SINGLE MOTOR	DIMENSIONS (H x W x D)	WEIGHT
MT1.1	1.1kW/1.5hp	0.75kW/1hp	No Minimum Load	300 x 460 x 310mm	45kg
MT1.5	1.5kW/2hp	1.1kW/1.5hp	No Minimum Load	300 x 460 x 310mm	45kg
MT2	2.2kW/3hp	1.5kW/2hp	No Minimum Load	300 x 460 x 310mm	50kg
MT3	3kW/4hp	2.2kW/3hp	No Minimum Load	300 x 460 x 310mm	60kg
MT4	4kW/5.5hp	3kW/4hp	No Minimum Load	600 x 400 x 680mm	100kg
MT5	5.5kW/7.5hp	4kW/5.5hp	No Minimum Load	600 x 400 x 700mm	110kg
MT7	7.5kW/10hp	5.5kW/7.5hp	No Minimum Load	600 x 400 x 770mm	135kg
MT11	11kW/15hp	7.5kW/10hp	No Minimum Load	600 x 400 x 800mm	145kg
MT15	15kW/20hp	11kW/15hp	No Minimum Load	600 x 400 x 900mm	170kg
MT18	18.5kW/25hp	15kW/20hp	No Minimum Load	600 x 600 x 920mm	210kg
MT22	22kW/30hp	18.5kW/25hp	No Minimum Load	600 x 600 x 920mm	210kg

**Proven examples of equipment operated in conjunction with Transwave Converters:**

Woodworking Machinery | Metalworking Machinery | Agricultural & Horticultural Machinery



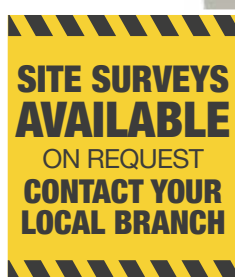
Power Factor Correction is accepted universally as one of the first steps recommended to reduce energy costs and improve energy efficiency. It works by “correcting” an inefficient electrical load or supply. Capacitors are automatically switched in to circuit to counteract the effects of an inductive load which is produced by all motors, pumps, air conditioning systems, refrigeration and general plant and machinery that use motors in their process or operation.

## There are a number of benefits:

- Removal of “Reactive Power” charges (penalty for operating an inefficient electrical supply)
- Reduction in kva “Availability” and “Capacity” charges
- Reduction in kW/h losses
- Reductions in CO<sub>2</sub> emissions
- Reduction in circuit currents
- Improved electrical efficiency
- Improved utility

Power Factor Correction not only returns financial savings on monthly electricity bills but also due to improved utility of the existing electricity supply would allow for additional plant to be connected to an otherwise overloaded inefficient supply, which in most cases would remove the need for a larger supply and associated costs.

With the main emphasis on Power Factor Correction and Voltage Optimisation we are continuing to deliver impressive results on energy reduction for many of our clients within all industrial and commercial sectors in the UK and overseas.



## Typical case study of vinyl floor manufacturer



### Annual Savings Achieved

£42,929

253.27 Tons CO<sub>2</sub>

169685 kW/h site

471600 kW/h inc transmission

### System Savings

1496 Amps per phase

1076 kVa Demand

### Payback - R.O.I.

11 Months

The site above is a world leader in vinyl floor manufacture with an annual electrical energy spend of around £7 million per annum on a 6 megawatt site. The project included new power factor correction equipment and repairs to existing equipment to achieve an overall electrical efficiency of around 99% from a pre contract 85%.



## What is a poor power factor?

Power Factor is a degree of electrical efficiency with 1.00pf (unity) being the ultimate efficiency of 100%. Since 1990, recent changes from RECs to DNOs (Distribution Network Operators), changes to reactive power charges which came into force in 2008 and the new charging methodology which came into force in mid 2010, it is more important than ever to maintain a good healthy power factor.

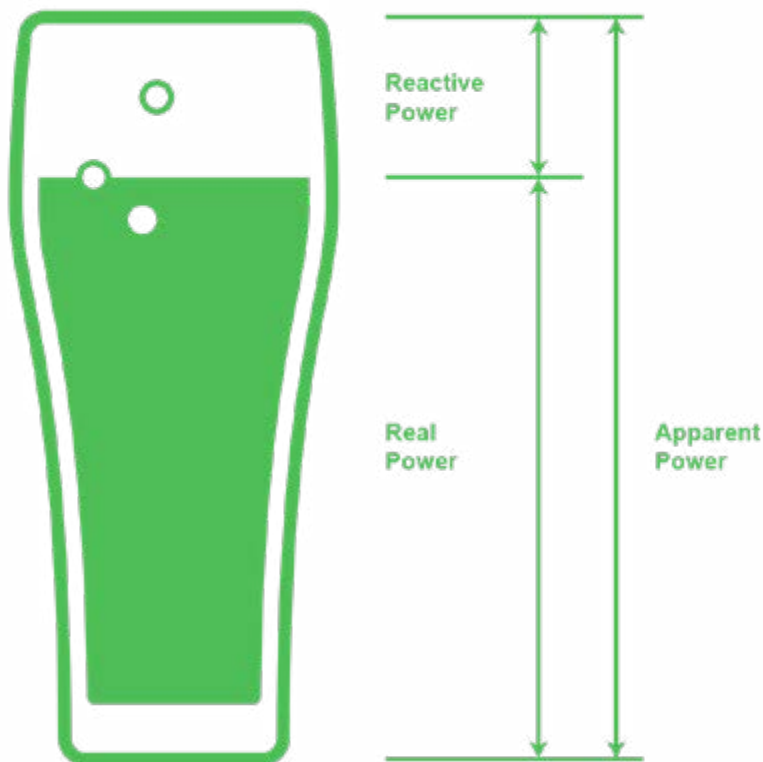
The new methodology for “Reactive Power Charges” will in most cases penalise for a power factor of less than 0.95pf (95% efficient) and in some cases as high as 0.99pf (99% efficient) leading to heavy penalties for inefficient users.

The power factor above refers to a lagging power factor which is the effect of inductive loads created by motors etc. Although additional recent changes have also come into effect regarding “Leading” power factors which are commonly created by static non automatic DOL capacitors connected permanently on the supply. A “Reactive Charge” can also be introduced if the power factor is “Leading” beyond 0.95pf as experienced by one of our clients who suddenly attracted a “Reactive Charge” despite the average power factor on the site being recorded on the electricity bills as 0.99pf due mainly to the planned maintenance program introduced many years ago to ensure a good healthy power factor was maintained.

## Efficiency - How it works

**Real Power** - Useful power needed to perform task

**Reactive Power** - Power drawn in addition to useful power but does not contribute to the task



## What is a Voltage Optimisation System?

The theory behind voltage optimisation is simple. There is a difference between the voltage supplied to a building in the United Kingdom and what is required to operate electrical equipment.

On average the voltage in the United Kingdom is 242V and due to electrical equipment being manufactured to work anywhere in the European Union, this means that the optimum operating voltage required by electrical equipment to work most efficiently is around 220V.

This overvoltage is not only costing more than required, it can also shorten the life of electrical equipment.

The surplus voltage produces additional heat, noise and vibration in appliances, causing stress on components, especially to motors, electronic systems like computers and lighting which are more vulnerable to overvoltage and fail much sooner.

A voltage optimisation system makes sure that a building only consumes and pays for the voltage level that it really needs rather than the overvoltage supplied from the grid. It does this by optimising the incoming voltage by up to -25V. This lowers electricity consumption, reduces electricity bills and reduces the wear and tear on appliances and electrical equipment.

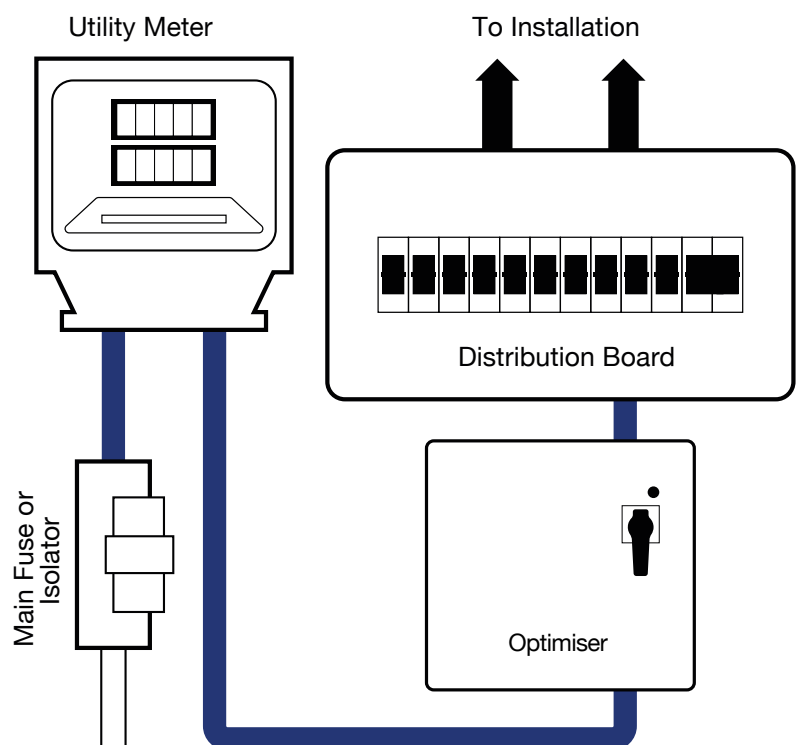
# Compact YCVO63-3P and YCVO100-3P

The Compact three-phase voltage optimisation systems are designed for use in any building with a three phase supply and maximum demand up to 100A (72kVA). The units are easily fitted by a competent electrical installer and simply requires the mains cables wiring in and out to make it fully operational, a process that only takes around a couple of hours. (Larger sizes are available)

- 400V AC 3 Phase 50Hz
- 63A permanent operation YCVO63-3P (45kVA)
- 100A permanent operation YCVO100-3P (72kVA)
- Super low loss Toroidal technology 99.9% Efficient
- Voltage output is set by the installer during installation
- Choice of 4 voltage reduction settings (-10V, -15V, -20V, -25V)
- 5 year warranty
- Amendment 3 compliant
- Integrated isolation
- Overcurrent protection
- Temperature range -10°C to 60°C
- Dimensions YCVO63-3P (inc 100m removable plinth) - H700 x W500 x D300mm
- Dimensions CVO100-3P (inc 100m removable plinth) - H700 x W500 x D300mm
- Weight YCVO63-3P - 44kg
- Weight YCVO100-3P - 63kg

A Compact requires a three-phase supply and neutral, which is fed from the incoming mains to the business. The system incorporates protection via a door interlocked MCCB although the supply to the system may require suitably rated isolation and protection to conform to the latest edition of current wiring regulations.

PART NO	DESCRIPTION
YCVO63-3P	3 Phase, 63A
YCVO100-3P	3 Phase, 100A





# Compact YCVO63 and YCVO100

The Compact single-phase voltage optimisation system is designed for use in residential properties and small commercial buildings. The 63A unit is easily fitted by a competent electrical installer and simply requires two wires in and two wires out to make it fully operational. A process that only takes around one hour.

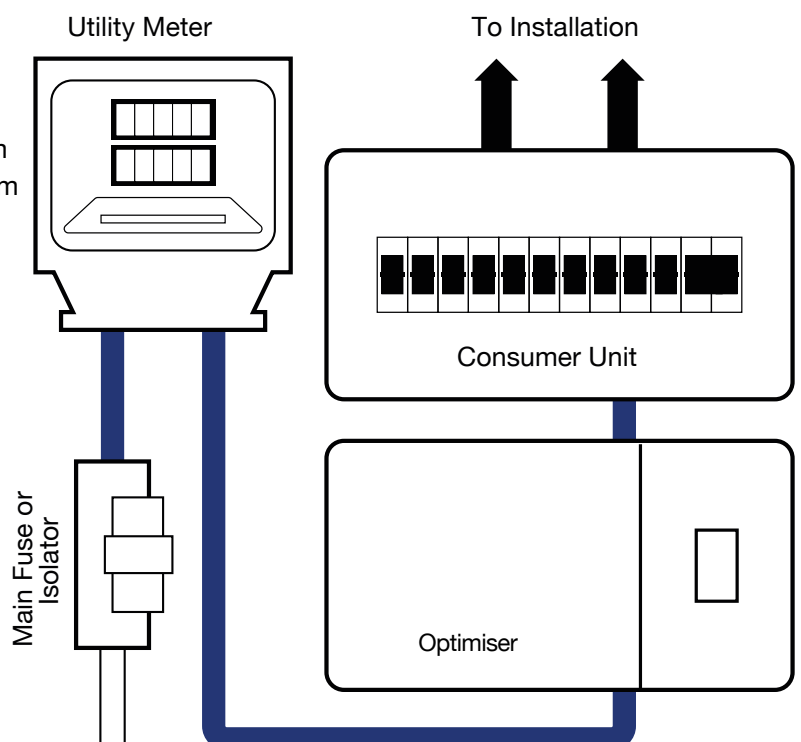
Another attractive feature of the Compact domestic voltage optimisation system is that, unlike smart meters, it does not require a complete change in behaviour and unlike solar and wind power it is not focused on renewable energy production, but rather on reducing energy consumption all day every day.



- 230V AC 1 Phase 50Hz
- 63A permanent operation YCVO63
- 100A permanent operation YCVO100
- Super low loss Toroidal technology 99.9% Efficient
- Voltage output is set by the installer during installation
- Choice of 4 voltage reduction settings (-10V, -15V, -20V, -25V)
- Overcurrent protection
- Integrated isolation
- Amendment 3 compliant
- 5 year warranty
- Temperature range -10°C to 60°C
- Dimensions YCVO63 – H215 x W340 x D115mm
- Dimensions YCVO100 - H280 x W410 x D150mm
- Weight YCVO63 - 14.5kg
- Weight YCVO100 - 24kg

A Compact requires a 230V (nominal) single-phase supply, which is fed from the incoming mains to the home. The supply to the system must be fitted with suitably rated protection and isolation to allow maintenance (if required) and to conform to current regulations and standards.

PART NO	DESCRIPTION
YCVO63	1 Phase, 63A
YCVO100	1 Phase, 100A



# WHAT WOULD YOU DO IF THE POWER GOES OUT NOW?



## Supply, install, maintain and service



## When was the last time your UPS had a checkup?

Regular health checks carried out on your UPS and UPS batteries will help to avoid unexpected failures or spot potential faults to prevent them causing any downtime to your supported load.

### Things to consider when deciding if your UPS needs a Health Check:

- How old is your UPS?
- How effective is your UPS in protecting your equipment?
- When was the last time your UPS had a service?
- Do you have new equipment which would also benefit from emergency power protection?
- Will your UPS run for the length of time you need it in the event of a mains failure?
- Have you taken into consideration the environment in which your UPS and batteries are housed, as heat has the most detrimental effect on UPS batteries?

### UPS health check includes:

- UPS visual inspection and environmental checks
- Further maintenance checks including fuses, fans and display values
- Battery test
- External bypass check
- Full health check report with recommendations
- All work to be completed in normal working hours

### YESSS Industrial offer:

- Full project management from start to finish, we specify the solutions and manage the entire project on your behalf
- Full installation, maintenance and commissioning



# POWER DISTRIBUTION CUSTOM BUILD



**Custom  
distribution  
systems  
made to order**

**CONTACT YOUR LOCAL  
YESSS BRANCH**

Do you have an idea or are not sure what you need and require some assistance?

Would you like to work with a company that can turn your requirements into reality, a company with their own facility manufacturing distribution systems, that works very closely with many key solution providers to offer a wide range of potential solutions that meet your needs whilst at the same time ensuring design and quality is a priority?

YESSS Industrial in conjunction with Famatel UK Ltd is making power easy to connect by offering a custom build solution





## 18th Edition Caravan Hook-up Units

### NEWCAV1STTY:

- 18th Edition Caravan hook up 1 x 16A RCBO 30mA DP
- 1 x 16A 3P 240V outlets 1 x 25mm Loop in and out terminals
- Neon Power on indicator

### NEWCAV1SMTTY:

- 18th Edition Caravan hook up 1 x 16A RCBO 30mA DP 1 x Meter
- 1 x 16A 3P 240v outlets 1 x 25mm Loop in and out terminals
- Neon Power on indicator



- All cables crimped
- Lockable window
- RCBO DP 30mA fitted
- Switched interlocked outlets
- Set of 35mm incoming and outgoing terminals
- Security screw fitted switched sockets

- Wired in tri-rated cable
- Also available in IP65 versions
- Also available with a meter
- Also available with a photo cell
- Also available with a light



PART NO	DESCRIPTION
NEWCAV1Y	1 x 16A 3P outlet 240V c/w 1 x RCBO 30mA DP
NEWCAV1MY	1 x 16A 3P outlet 240V c/w 1 x RCBO 30mA DP 1 X Meter
NEWCAV2Y	2 x 16A 3P outlet 240V c/w 2 x RCBO 30mA DP
NEWCAV2MY	2 x 16A 3P outlets 240V c/w 2 x RCBO 30mA DP 2 X Meters

PART NO	DESCRIPTION
NEWCAV3Y	3 x 16A 3P outlets 240V c/w 3 x RCBO 30mA DP
NEWCAV3MY	3 x 16A 3P outlets 240V c/w 3 x RCBO 30mA DP 3 x Meters
NEWCAV4Y	4 x 16A 3P outlets 240V c/w 4 x RCBO 30mA DP
NEWCAV4MY	4 x 16A 3P outlet 240V c/w 4 x RCBO 30mA DP 4 x Meters



## 17th Edition Caravan Hook-up Units



PART NO	DESCRIPTION
CAV1Y	1 x 16A 3P outlet 240V c/w 1 x RCBO 30mA DP
CAV1MY	1 x 16A 3P outlet 240V c/w 1 x RCBO 30mA DP 1 x Meter
CAV2Y	2 x 16A 3P outlet 240V c/w 2 x RCBO 30mA DP
CAV2MY	2 x 16A 3P outlets 240V c/w 2 x RCBO 30mA DP 2 x Meters

PART NO	DESCRIPTION
CAV3Y	3 x 16A 3P outlets 240V c/w 3 x RCBO 30mA DP
CAV3MY	3 x 16A 3P outlets 240V c/w 3 x RCBO 30mA DP 3 x Meters
CAV4Y	4 x 16A 3P outlets 240V c/w 4 x RCBO 30mA DP
CAV4MY	4 x 16A 3P outlet 240V c/w 4 x RCBO 30mA DP 4 x Meters

## Electric Vehicle HOME CHARGING

pod POINT

### Solo

- In-built earth-neutral failure protection (no earth rod or isolation transformer required)
- Load balancing ensures no pre-authorisation required from the ENA or DNO
- Every unit is now fitted with 6mA DC leakage protection (no type B RCD required)
- Available with a Universal Socket or Tethered Type 1/ Type 2 connector
- Compatible with all plug-in vehicles

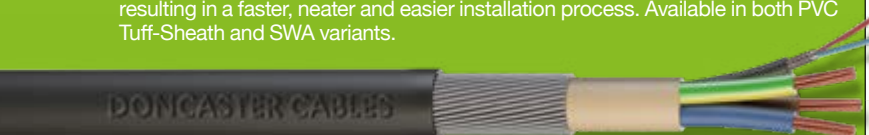


PART NO.	DESCRIPTION
S7-UC-6MA-2	3.6-7kW Socketed version (untethered)
S7-1C-6MA-2	3.6-7kW Tethered Type 1
S7-2C-6MA-2	3.6-7kW Tethered Type 2



### Power and data connectivity combined in one cable

Hard wired data connectivity is a superior and secure alternative to using WiFi, resulting in a faster, neater and easier installation process. Available in both PVC Tuff-Sheath and SWA variants.



PART NO.	DESCRIPTION
EV-ULTRA3C4.0	EV-Ultra 3 Core 4.0mm <sup>2</sup> Power and Data Cable
EV-ULTRA3C4.0SWA	EV-ultra 3 Core 4.0mm <sup>2</sup> SWA Power and Data Cable
EV-ULTRA3C6.0	EV-ultra 3 Core 6.0mm <sup>2</sup> Power and Data Cable
EV-ULTRA3C6.0SWA	EV-ultra 3 Core 6.0mm <sup>2</sup> SWA Power and Data Cable



# INDUSTRIAL SITE EQUIPMENT



- 221 Hire Service
- 222 Generators
- 226 Site Distribution Kits
- 230 Corporate Clothing
- 231 Torches
- 232 Site Lighting
- 235 Site Heating & Cooling
- 236 Site & Van Security



# HIRE SERVICE

## Supply, install, maintain and service



For all of your generator requirements



### Sales

When considering the right generator, you need the assurance that it is from a reputable manufacturer. Flying Hire is a inmesol authorised dealer.

- Portable
- Industrial
- Stand-by
- Rental
- Heavy duty
- Load banking
- Servicing



### Hire

Choose from an extensive fleet of single, three phase and synchronised generators. The range starts at compact 10kVA machines to much larger units.

In addition, we can supply:

- Mains cable
- Distribution
- External tanks
- Road-towable (up to 200kVA)
- On-site engineer



### Tower Light Hire

Tower lights are the perfect tool for illuminating dark sites. Easy to install, easy to manage and very fuel efficient.

- 9m mast
- Wide beam
- Fuel efficient
- On / Off timer
- Photo sensing
- Towable



The selection of Hyundai Power Equipment products is extensive, ranging from consumer (high end home use) to professional and heavy duty industrial machines.

Generators remain the flagship product range, featuring diesel generators for backup and prime power, open frame petrol generators for professional and commercial use, and petrol inverter generators for the leisure market.



## Petrol Generators

### HYUNDAI

#### Leisure Generators

- Combining power, affordability, lightweight design & easy portability
- When "ECO" mode is engaged, the engine RPM is reduced to increase fuel efficiency, reduce noise & extend the lifespan of the engine
- Digital display measures volts, frequency and hours
- Latest Inverter Technology suitable for powering sensitive electronics and power tools



Use in a well ventilated area to prevent carbon monoxide poisoning

PART NO	HY1000SI	HY2000SI
MAX OUTPUT	1kW / 1.25kVA	2kW / 2.25kVA
VOLTAGE	230V (Pure Sine Wave)	
RUNTIME	4.5hrs at 50% load	5.6hrs at 50% load
NOISE	58dB at 7m	
START METHOD	Recoil	
NET WEIGHT	14kg	20kg





## Leisure Generators

- Remote start
- Clean pure sinewave output
- 'Eco Mode' Reduce engine RPM & noise, whilst saving fuel
- Unbeatable power to weight ratio



PART NO	HY3200SEI
MAX OUTPUT	3.2kW / 4kVA
VOLTAGE	230V (Pure Sine Wave)
RUNTIME	7hrs at 50% load
NOISE	54-59dB at 7m
START METHOD	Recoil / Electric
NET WEIGHT	35kg



Use in a well ventilated area to prevent carbon monoxide poisoning

## LPG Generators

- Run on standard unleaded petrol or can be run on your caravan or motorhome LPG supply
- Fuel cost savings of up to 50%
- Only one fuel type needs to be carried
- No refuelling required (in LPG mode)
- Ideal for caravan / motorhome use



PART NO.	DESCRIPTION
HY1000SI-LPG	1000W
HY2000SI-LPG	2000W
HY3200SEI-LPG	3200W



Use in a well ventilated area to prevent carbon monoxide poisoning

## Single Phase Electric Start Inverter Generator

- Electric Key Start, for simple and easy starting with recoil backup
- 3.3kW Maximum Output. Ideal for site use, commercial use or simply home / garage use
- VFT display with LCD status lights for ease of monitoring
- Economical Hyundai 212cc 4 Stroke Petrol Engine
- 2 x 230V AC & 1 x 12V DC sockets



PART NO	HY3500SEI
MAX OUTPUT	3.3kW
OIL CAPACITY	600ml
NOISE	74dB at 7m
START METHOD	Recoil / Electric
MAX ENGINE SPEED	3600rpm



Use in a well ventilated area to prevent carbon monoxide poisoning



## Portable 4 Stroke Water Pump

- Powered by a Hyundai 99cc 4-Stroke Air Cooled Petrol Engine
- 1" (25mm) Inlet and Outlet Ports
- Self-Priming Pump with Cast Iron Volute and Impeller
- Rugged Frame with Carry Handle and Anti-Vibration Mounts
- Semi-synthetic SAE 15W40 engine oil
- Capable of Pumping 85L/hr
- Dimensions (L x W x H): 370 x 280 x 388mm
- Net weight: 11kg
- 15m Maximum Lift, 4m Suction



PART NO	HY25-4
MAX OUTPUT	1.1kW
OIL CAPACITY	400ml
NOISE	115dB
START METHOD	East recoil
MAX ENGINE SPEED	3600rpm



Use in a well ventilated area to prevent carbon monoxide poisoning





## HYUNDAI

### Standby Diesel Generators

- Economical - run on as little as 1L/hr (red or white diesel)
- Long run tank - up to 30hrs on LR models
- Electric, remote & auto-start options
- Hyundai AVR alternator for smooth output
- ATS / AMF / MTS compatible
- Remote start / 2-wire start (optional)
- Ideal for home or business standby



Use in a well ventilated area to prevent carbon monoxide poisoning

\*kVA is based on assumed load factor of 0.8

PART NO	DHY6000SE	DHY8000SELR	DHY8000SELR-3	DHY12500SE
MAX OUTPUT	5.2kW / 6.5kVA*	6kW / 7.5kVA*	5.5kW / 6kVA*	10kW / 12.5kVA*
VOLTAGE	115V / 230V	115V / 230V	230V / 400V	230V
ENGINE SPEED	3000RPM	3000RPM	3000RPM	3000RPM
ENGINE TYPE	Single OHV	Single OHV	Single OHV	Twin OHV
COOLING	Air-Cooled	Air-Cooled	Air-Cooled	Air-Cooled
START METHOD	Electric	Electric	Electric	Electric
NOISE	70dB @ 7m (96dBA)	70dB @ 7m (96dBA)	70dB @ 7m (96dBA)	70dB @ 7m (96dBA)
DIMENSIONS L x W x H (mm)	930 x 530 x 720	930 x 530 x 870	930 x 530 x 720	1150 x 890 x 660
NET WEIGHT	152kg	158kg	156kg	322kg



# Single Phase 1500RPM Diesel Generators

- Slow running for a long life
- Smooth power output - brushless AVR alternators
- ATS & AMF options
- Auto-start / water heaters / battery chargers
- Digital control panels for exact engine control & protection



Use in a well ventilated area to prevent carbon monoxide poisoning

\*kVA is based on assumed load factor of 0.8



ATS, AMF (optional) never lose power



Emergency stop for instant disable



External fuel filler ease of refuelling



Digital panel full control

PART NO	DHY9KSEM	DHY11KSEM	DHY18KSEM	DHY22KSEM	DHY28KSEM	DHY35KSEM	DHY53KSEM
<b>MAX OUTPUT</b>	8.8kW / 11kVA*	11kW / 13.75kVA*	18kW / 22.5kVA*	22kW / 27.5kVA*	27.5kW / 34.4kVA*	28.2kW / 35.2kVA*	52.8kW / 66kVA*
<b>VOLTAGE</b>	230V	230V	230V	230V	230V	230V	230V
<b>ENGINE SPEED</b>	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM
<b>FUEL TANK CAPACITY</b>	42L	77L	77L	93L	93L	93L	180L
<b>RUNTIME (50% LOAD)</b>	23hrs	35hrs	23hrs	21hrs	18hrs	16hrs	20hrs
<b>ATS CONNECTION</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>DIMENSIONS L x W x H (mm)</b>	1500 x 760 x 1075	1500 x 760 x 1075	1900 x 900 x 1100	2220 x 950 x 1240	2220 x 950 x 1240	2200 x 950 x 1250	2500 x 950 x 1520
<b>NET WEIGHT</b>	530kg	710kg	760kg	870kg	970kg	1045kg	1290kg

# Three Phase 1500RPM Diesel Generators

- 230V / 400V outputs
- 1500RPM for low noise & long life
- Brushless maintenance-free Hyundai AVR alternators
- 2-Wire remote start functionality
- ATS / AMF compatible
- Ideal for mains-failure standby use



Use in a well ventilated area to prevent carbon monoxide poisoning

\*kVA is based on assumed load factor of 0.8

Optional extras



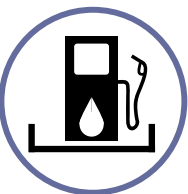
Remote monitoring and control



Battery charger



Water heaters



Bunded fuel tank



PART NO	DHY11KSE	DHY14KSE	DHY22KSE	DHY28KSE	DHY34KSE	DHY45KSE	DHY65KSE	DHY85KSE	DHY125KSE	DH34KSE-MULTI
<b>MAX OUTPUT</b>	9kW / 11kVA*	11kW / 14kVA*	18kW / 22kVA*	22kW / 28kVA*	28kW / 34kVA*	36kW / 45kVA*	48kW / 60kVA*	62kW / 85kVA*	91kW / 125kVA*	3-Phase 25kW / 31.3kVA 1-Phase 17kW / 21.3kVA
<b>VOLTAGE</b>	230V / 400V	230V / 400V	230V / 400V	230V / 400V	230V / 400V	230V / 400V	230V / 400V	230V / 400V	230V / 400V	230V / 400V
<b>ENGINE SPEED</b>	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM	1500RPM
<b>FUEL TANK CAPACITY</b>	42L	77L	77L	93L	93L	93L	180L	180L	180L	93L
<b>RUNTIME (50% LOAD)</b>	23hrs	35hrs	23hrs	23hrs	23hrs	13hrs	19.7hrs	16hrs	12hrs	20hrs
<b>ATS CONNECTION</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>DIMENSIONS L x W x H (mm)</b>	1500 x 760 x 1070	1900 x 900 x 1100		2200 x 950 x 1240		2200 x 950 x 1310	2500 x 950 x 1560	2520 x 980 x 1510	3200 x 1050 x 1770	2200 x 950 x 1250
<b>NET WEIGHT</b>	530kg	710kg	760kg	870kg	970kg	1045kg	1250kg	1270kg	1634kg	1000kg

Single and three phase continuously rated site transformers in 5kVA and 10kVA, which incorporate socket outlets, hard wired lighting outputs or a combination of both.

## Transformer Windings

UK manufactured continuously rated with a voltage ratio of single phase 230-110V CTE, or three phase 400-110V NE Delta/Star. 5kVA-10kVA (additional ratings up to 30kVA available on request)



## Circuit Protection

- 16A sockets protected in pairs by a 16A DP type D MCB
- 32A sockets protected individually by a 32A DP type D MCB
- Lighting circuits protected individually by a 16A DP type D MCB



PART NO	kVA	INPUT VOLTS	PRIMARY MCB	SOCKET OUTLETS	LIGHTING OUTPUTS
YT-1-5K	5	230V 1ph	20A DP	4 x 16A + 1 x 32A	N/A
YT-1-5KL4	5	230V 1ph	20A DP	N/A	4
YT-1-5KL1	5	230V 1ph	20A DP	4 x 16A + 1 x 32A	1
YT-1-10K	10	230V 1ph	40A DP	4 x 16A + 2 x 32A	N/A
YT-1-10KL2	10	230V 1ph	40A DP	4 x 16A + 2 x 32A	2
YT-1-10KL6	10	230V 1ph	40A DP	N/A	6
YT-3-10K	10	400V 3ph	16A TP	4 x 16A + 2 x 32A	N/A
YT-3-10KL2	10	400V 3ph	16A TP	4 x 16A + 2 x 32A	2
YT-3-10KL6	10	400V 3ph	16A TP	N/A	6





Industrial

## Metal Clad Wall / Floor Mounted Transformers

- 240VAC Primary
- 110VAC Secondary



PART NO	INTERMITTENT RATING	CONTINUOUS RATING	OUTPUT CONNECTION
ERSWM1500/2	1.5kVA	0.75kVA	2 x 16A 110V Sockets, IEC 60309 (BS4343)
ERSWM1500	1.5kVA	0.75kVA	Internal Hard Wire 0.5 to 6.0mm <sup>2</sup>
ERSWM3300/2	3.3kVA	1.65kVA	2 x 16A 110V Sockets, IEC 60309 (BS4343)
ERSWM3300	3.3kVA	1.65kVA	Internal Hard Wire 0.5 to 6.0mm <sup>2</sup>
ERSWM5000/4	5.0kVA	3.0kVA	4 x 16A 110V Sockets, IEC 60309 (BS4343)
ERSWM5000	5.0kVA	3.0kVA	Internal Hard Wire 0.5 to 6.0mm <sup>2</sup>

**SPECIAL BUILD TRANSFORMERS AVAILABLE UPON REQUEST**



## LED Pear Drop Light Fitting

- Nano LED IP54 rated
- Supply voltages: 110V, 240V AC (also available in 24, 42, 48V to order)
- Power rating: 12W for the standard version and 8W for emergency
- Colour temperature 6500K
- Low maintenance costs thanks to a lifetime up to 25,000 hours

- A high efficiency LED module placed on a special heat sink design in order to increase inner convective air movements to get a better cooling effect ensuring a long life of electronic components.
- Diameter: 105mm (approx). Height 200mm (body) + 40mm (hook)
- Weight 600g (approx)



PART NO	DESCRIPTION
FME110Y	Nano light 12W Standard 110V
FME120Y	Nano light 12W Standard 240V
FME110EMY	Nano light 8W Emergency 110V
FME120EMY	Nano light 8W Emergency 240V

# Defender

POWER AND LIGHT

## Kit - 1

### Defender 3kVA Transformer - 110V

- High quality internal windings and components ensure long term reliability
- Resettable Circuit Breaker
- Supplied with 2m of Rubber Cable
- Fitted 13A plug
- Outlets: 2 X 16A



PART NO	DESCRIPTION
E203010	Defender 3kVA Transformer

### Defender 4 Way Distribution Unit - 110V

- 110V 4 Way Power Distribution unit
- Outlets: 4 X 16A
- Steel cased
- Supplied with 2.5mm cable
- Fitted 16A plug



PART NO	DESCRIPTION
E13104	Defender 4 Way Distribution Unit 110V

### Defender 14m Extension Lead 16A 1.5mm Cable - Yellow 110V

- Professional extension lead made with high quality components
- Low temperature Arctic-grade cable
- Defender BS EN 60309 plugs & sockets
- For use in harsh environments



PART NO	DESCRIPTION
E85111	Defender 14m Extension Lead 16A 1.5mm Cable 110V

## Kit - 2

### Defender 3.3kVA Power Pod Transformer 110V

Versus imported 3.3kVA transformers the Power Pod Transformer has:

- More Steel: over 1Kilo
- Better quality sand to dissipate heat
- High grade Du Pont Nylon plastic casing: prevents rust, chips or cracks
- Recessed outlets prevent them from being sheared off in harsh environments
- Power-on indicators for each socket show when tools are powered up
- Weight: 18kg
- 2m cable with 13A fitted plug
- 2 x 16A Outlets



PART NO	DESCRIPTION
E205100	Defender Power Pod Transformer Distribution Unit 110V

### Defender Spider Ball Power Distribution Unit - 110V

Versus traditional splitter boxes, the Spider Ball has:

- Recessed sockets - prevent them from being sheared off in harsh environments
- Quality Du Pont plastic shell - drop tested to 2m
- Tested to handle harsh site conditions
- Integrated cable tidy with securing strap
- Neon power indicators- shows it's working
- 4 Way 16A Splitter
- 3m Cable with a 16A fitted plug and cable



PART NO	DESCRIPTION
E13200	Defender Spider Ball Distribution Unit 110V

### Defender 14m Extension Lead 16A 2.5mm Cable - Yellow 110V

- Professional extension lead made with high quality components
- Low temperature Arctic-grade cable
- Defender BS EN 60309 plugs & sockets
- For use in harsh environments



PART NO	DESCRIPTION
E85121	Defender 14m Extension Lead 16A 2.5mm Cable 110V



## Light Industrial Cable Reels

- Industry standard VDE approved cable
- Steel A frame gives a robust and stable base
- Easy to see on site
- Neon power indicator
- Thermal overload protection prevents overheating
- Integrated carry handle



PART NO	DESCRIPTION
E86465	20m, 240V
E86450	25m, 110V

# Defender

POWER AND LIGHT



## 5kVA Transformer

- Intermittent rating of 5000W - duty cycle 5mins on/15mins off
- Continuous rating of 2500W
- Made and tested in the UK
- No plug fitted
- Centre tapped to earth for extra safety
- Outlets - 1 x16A 1x 32A
- Cable - 2m, 2.5mm, 3 core, H05 VVF
- Standard - BSEN 61558-1
- Weight - 32KG
- Dimensions - 315 x 355 x 275

PART NO	DESCRIPTION
E205042	5KVA Site Transformer

## 5kVA Site Transformer

4 x 16A and 1 x 32A Outlet - 110V

- Heavy duty steel enclosure
- Double wound with a safety earth screen
- Complete with forklift points and lifting rings.
- Protected by miniature circuit breakers
- IP Rating IP23
- Size 545 x 430 x 370mm
- Weight 54.7kg



PART NO	DESCRIPTION
ZE210028	5kVA Site Transformer

## 10kVA Air Cooled Site Transformer

4 x 16A & 2 x 32A Outlets 110V

- Heavy duty steel enclosure
- Double wound with a safety earth screen
- Complete with forklift points and lifting rings.
- Protected by miniature circuit breakers
- Additional air-cooling ensures efficient operation and reliability
- IP Rating IP23
- Weight 90kg



PART NO	DESCRIPTION
ZE210022	10kVA Air Cooled Transformer





## Corporate Clothing

We offer personalised embroidered industrial workwear package deals, providing your workforce the highest quality clothing for that professional image.

The packs can contain customised embroidered clothing with a variety of polo shirts, sweatshirts, fleeces and workwear trousers styles to suit all applications.

Embroidered workwear bundles make it easy for you, and allow you to kit out your employees with exactly what they require to conduct their role. Whether the bundle is centred on that individual or the team, it means that you host your logo in a prominent position to give maximum visibility of your branding.

Artwork file types must be one of the following: .jpg, .png, .bmp, .psd, .pdf, .doc, .docx, .ie, .eps so we can recreate your logo to the highest quality.

If you have any questions about combinations of bundles, be it numbers, sizes or clothing types; please speak to our sales team.

Full workwear range available; ask in branch for more details.

## Poloshirt

- 240 gms
- 50% Polyester
- 50% Cotton
- Available in XS - 5XL
- Available colours: White, Black, Bottle Green, Burgundy, Heather Grey, Kelly Green, Navy, Red, Royal Blue and Sky Blue



## Sweatshirt

- 340 gms
- 50% Polyester
- 50% Cotton
- Available in XS - 5XL
- Available colours: Black, Bottle Green, Heather Grey, Navy, Red and Royal Blue



## Fleece

- 300 gms
- Symmetry Fleece
- Adjustable Hem
- Available in S - 4XL
- Available colours: Black, Bottle Green, Classic Red, Navy, Royal and Seal Grey



## Wearer Pack

- 5 x Poloshirts
- 2 x Sweatshirts
- 1 x Fleece
- All Items are included in the Wearer Pack and will all be embroidered with your company logo



# 7 YEAR WARRANTY

with registration. More information at [lelenser.com](http://lelenser.com)

**LEDLENSER**

PATENTED ADVANCED FLOOD/SPOT FOCUSING OPTICS

## LED Headlamp

- Lumens: 200/20
- Beam Distance: 130/40m
- Run Time: 4.5/35hrs
- Weight: 92g
- Ingress Rating: IP54
- Battery: 1 x AA
- Supplied with batteries
- Spot / flood focusing
- Low battery warning



PART NO  
IH5



## LED Rechargeable Headlamp

- Lumens: 400/20
- Beam Distance: 180/40m
- Run Time: 4/35hrs
- Weight: 98g
- Ingress Rating: IP54
- Battery: L-ion
- Supplied with batteries, magnetic charger
- Spot / flood focusing
- Low battery warning



PART NO  
IH5R



## LED Rechargeable Headlamp

- Lumens: 1000/750/300/10
- Beam Distance: 320/300/200/30m
- Run Time: Boost/4/8/100hrs
- Weight: 179g
- Ingress Rating: IP54
- Battery: L-ion
- Supplied with batteries, magnetic charger
- Bluetooth enabled
- Spot / flood focusing
- Red, blue, green light options



PART NO  
IH11R



## LED Torch

- Lumens: 450/250/40
- Beam Distance: 300/220/100m
- Run Time: 1/2/25hrs
- Weight: 175g
- Ingress Rating: IP54
- Battery: 4 x AAA
- Supplied with batteries, belt pouch, wrist-strap



- Spot / flood focusing
- Focus lock

PART NO  
I7

## Flex Rechargeable Inspection Lamp

- Lumens: Flood 600/250 | Spot 100
- Run Time: Flood 2/4m | Spot 6.5mm
- Weight: 222g
- Ingress Rating: IP54
- Battery: L-ion
- Supplied with charging cable
- Folding, directable head
- Flood and spot light options
- Integrated magnet and hanging hook



PART NO  
IW5R

## LED Fast Charge Torch

- Lumens: 700/40
- Beam Distance: 280/80m
- Run Time: 6/35hrs
- Weight: 255g
- Ingress Rating: IP54
- Battery: L-ion
- Spot / flood focusing
- Supplied with batteries, belt pouch, wrist-strap, charging base



PART NO  
I9RIRON

## LED Rechargeable Torch

- Lumens: 120/10
- Beam Distance: 100/30m
- Run Time: 4/25hrs
- Weight: 82g
- Ingress Rating: IP54
- Battery: NiMH 3 x AAA
- Spot / flood focusing
- Supplied with batteries, belt pouch, USB cable, charging base, pocket clip



PART NO  
I6R

## Rechargeable Floodlight

- Lumens: 2500/1500/1000/500/200
- Run Time: 1.3/2/3/6/15hrs
- Weight: 1060g
- Ingress Rating: IP54
- Battery: L-ion
- Supplied with charging cable
- Dimmable
- Integrated stand and magnets
- Powerbank function



PART NO  
IF4R



## Defender POWER AND LIGHT

### DF1200 20W LED Work Light with Telescopic Tripod

- It's bright - 1200 Lumens output
- Low power - Only 20W
- Impact resistant - pressure die cast aluminium case absorbs knocks with ease
- Anti glare - toughened frosted glass diffuser
- IP44 plug (110v only) (IP65 light head)
- Colour temp - 6000K Cool white light
- Beam Angle - 120° light spread
- Robust - supplied with tough telescopic tripod stand
- Supplied with 3M H05RN-F rubber cable with a BS60309 110V/16A or 240V 5Amp plug to BS1363.
- Tripod - height adjustable from 0.6-1.7m
- Tripod - features a quick lock and release' height adjustment

PART NO	DESCRIPTION	
E204050	Single	110V / 16A
E204040		240V / 5Amp
E204070	Twin	110V / 16A
E204060		240V / 5Amp



### LED 400 Rechargeable Floor Light

- It's bright - 400 Lumens at 100% 100 Lumens at 25%
- Low power - Only 10W
- Impact resistant - pressure die cast aluminium case absorbs knocks with ease
- Anti glare - toughened frosted glass diffuser
- Colour temp - 6000K Cool white light
- Robust - supplied with tough floor stand



PART NO	DESCRIPTION
E712883	LED 400 Floor Light

### DF1200 20W LED Corded Floor Light

- It's bright - 1200 Lumens output
- Low power - Only 20W COB LED chips
- IP44 plug / IP65 light head
- Impact resistant - pressure die cast aluminium case absorbs knocks with ease
- Anti glare - toughened frosted glass diffuser
- Colour Temp - 6000K Cool white light
- Robust - supplied with tough floor stand



PART NO	DESCRIPTION
E204030	110V/16A
E204020	240V/13A





## LED Rechargeable Uplight

- LED light stick and base ideal for plastering, event lighting and general construction
- Impact-resistant polycarbonate lens protects the high output low energy LED tube
- Includes charging lead
- Lightweight and robust design that is portable
- Powerful SMD LEDs deliver a 3050 lumen cool white light output
- Up to 6 hours of run time and a 6 hour charge time

PART NO	DESCRIPTION
E206018	LED Uplight

## Uplight Light Stick with Splitter Base 110V

- Lumens: 2500
- Power: 22W
- Light Spread: 180° / 360°
- Rating: IP44
- Durable and versatile across many applications
- Low energy light stick - ideal for plastering, event lighting and general construction



PART NO	DESCRIPTION
E712649	LED Uplight

## LED Uplight 4Ft 110V 20W LED Uplight with Wobble Base

- Light output- 1600 Lumens
- Low power - 20W
- Light spread - 180°
- IP44 rating
- Impact resistant polycarbonate lens ensures durability on site
- Self Righting wobble base up to 75°- delivers instant stability
- Power socket for linking multiple units together



PART NO	DESCRIPTION
E712670	110V / 16A

## LED String Light

### Anti Corrosive LED String Light

- It's bright - 2ft 20W 1243 Lumens output  
5ft 40W 2500 Lumens output
- Impact resistant - Tough polycarbonate case absorbs knocks with ease
- Anti glare - Strong polycarbonate diffuser
- Colour temp - 6000K cool white light
- Supplied with 3m cable with a 110V 16A plug and coupler
- Battery back-up version offers up to 3hrs back-up lighting



PART NO	DESCRIPTION
E709280	2Ft 20W Led Anti Corrosive String Light 110V
E204055	2Ft 20W Led Anti Corrosive String Light With Battery Backup 110V
E709283	5Ft 40W Led Anti Corrosive String Light 110V

## LED Contractor Floor Light 2ft 20W LED

### Contractor Floor Light with 2 x power take off points

- It's bright - 1243 Lumens output
- Low Power - Only 20W
- Impact Resistant - tough Polycarbonate case absorbs knocks with ease
- Anti Glare - Strong Polycarbonate diffuser
- Colour Temp - 6000K cool white light
- Supplied with 3M cable with a BS60309 110V/16A or 240V 13A plug to BS1363
- Features - 2 x Power Take Off Points (240V 13A / 110V 16A)



PART NO	DESCRIPTION
E709278	110V / 16A
E709279	240V / 13A



## 22m ES LED Festoon Kit (LED Lamp) 110V, 100W

- Kit Features:
  - 10 ES holders
  - 10 x 10W (ES) LED Lamps
  - 10 x ES Lamp guards
- LED Lamps
- Fully insulated
- 800 Lumens, total output 8000 lumens
- IP44 rating



PART NO	DESCRIPTION
E89811	22M ES LED Festoon Kit

## LED Slim Light

- Powerful SMD LEDs deliver a 4000k cool white light
- Slim fold flat design for portability and easy storage
- Impact resistant body and lens - strong cast aluminium
- Drop tested to 1 metre



PART NO	DESCRIPTION
E206013	30W, 110V
E206017	30W, 240V
E206014	50W, 110V

## ES LED (GLS Style) Lamp 10W

- Suitable for E89811 Defender 22M ES LED Festoon Kit
- 10W LED Lamp
- 800 Lumens
- Pack of 10 Lamps



PART NO	DESCRIPTION
E56262	ES LED Lamp 10W

## LED Festoon Modules



- 10 modules 2m apart
- Very efficient LED festoon module, reducing running costs
- Easy access fixing point reduces time of installation
- Heat and glass free makes the units very safe
- Diffused lens reduces light glare

PART NO	DESCRIPTION
E89816	22m, 110V
E89817	22m, 240V
E89818	50m, 110V



## RHINO

### TQ3 Heater

- A high efficiency thermo-quartz heater that's ideal for both temporary heating and drying paintwork and plaster
- Twin 1400W infra-red elements
- 2 heat settings
- Integral wheels for easy manoeuvrability
- Robust plastic body resists dents and scrapes



PART NO	DESCRIPTION
H029300	110V
H029400	240V



### PTC Heater

- Three selectable heat settings
- Low Noise
- Built in adjustable thermostat control
- Robust construction
- Strong Adjustable frame

PART NO	DESCRIPTION
H02076	2kW
H02077	3kW

### FH3 3kW Fan Heater

- Unique Fin Heating Element
- Heats quicker and hotter than standard industrial heaters
- Three selectable heat settings
- Directional air outlet for efficient air distribution
- Built in adjustable thermostat control
- Heavy Duty industrial steel body
- Suitable for warehouses, garages, construction sites and workshops



PART NO	DESCRIPTION
H02075	110V
H02074	240V

### Air Conditioner 9000 BTU

- 3 in 1 - Cooling, Dehumidifier and Fan
- Ideal for rooms with an area of 18-22m<sup>2</sup>
- 3 speed fan for maximum control
- Auto swing function
- Digital soft-touch controls with LED display
- Programmable timer
- Handles and castors for easy movement
- Low noise (56dB)
- Power consumption 2.65kW
- Performance:
  - Cooling - 9000 BTU
  - Dehumidifier - 0.9 L/h
  - Fan - 360 m<sup>3</sup>/h



PART NO	DESCRIPTION
H03620	Air Conditioner





The UK's No.1 vehicle and on-site security box solution. A key replacement service is offered on all 5-Lever BS locks, please contact us for further details.

## Van Vault 2

- All your valuable kit is stored and secured behind a heavy duty steel body with a reinforced lid and advanced protection Vaultlock™ locking system
- Fitted with a highly effective 70mm anti-pick, anti-drill and anti-rust stainless steel disc lock
- Built with a 3mm steel construction with fully phosphated anti-corrosion protection
- 4 reinforced fitting points
- External dimensions: H494 x L935 x D590mm



PART NO	DESCRIPTION
S10810	Van Vault 2

## Slider

- A flexible alternative to the traditional box product, this high security drawer adds extra depth to your tool storage setup
- Constructed to take the weight of other equipment - means you can stack on-top and not lose any valuable van space
- Fitted with a highly effective 70mm anti-pick, anti-drill and anti-rust stainless steel disc lock
- Built with a solid steel body with fully phosphated anti-corrosion protection
- Heavy duty roller bearings combined with full drawer runners provide a smooth drawer action
- Drawer will carry 300kg
- External dimensions: H310 x L500 x D1200mm



PART NO	DESCRIPTION
S10870	Slider

## Slim Slider

- Independently tested, approved and certified by Sold Secure and Secured by Design
- Built with a solid steel construction with fully phosphated anti-corrosion protection
- Fitted with a highly effective 70mm anti-pick, anti-drill and anti-rust stainless steel disc lock
- The Vaultlock™ is positioned deep within the body of the drawer protected by a hardened steel plate
- Heavy duty roller bearings combined with full drawer runners provide a smooth drawer action
- Drawer will carry 300kg
- External dimensions: H227 x L1000 x D1200mm



PART NO	DESCRIPTION
S10880	Slim Slider



## Battery Bank

- Provides a safe environment for charging power tool batteries
- 20 integral RCD protected power points and a MCB protected inlet
- Coin return locking - compatible with old and new £1 coins
- 2-gang latching RCD protected 13A outlets
- Numbered keys and locker for easy identification
- Individual locker venting
- Individually switched sockets with power on indicators

PART NO	DIMENSIONS - WHOLE UNIT (H x W x D)	DIMENSIONS - CHARGING LOCKER (H x W x D)	CURRENT	WEIGHT (KG)
E92000	1877 x 455 x 275mm	270 x 200 280mm	13A	63



## 4-Site

- 2mm sheet steel construction
- 2 x 5-lever BS Locks
- Integrated single pin hinge
- Fully phosphated anti-corrosion protection
- Gas strut support arms
- Solid lock 'lid stay' system
- Flush comfort grip handles
- Fork lift points for easy loading

PART NO	EXTERNAL SIZE (H x L x D)	INTERNAL SIZE (H x L x D)	WEIGHT (KG)
S10270	750 x 1190 x 645mm	595 x 1150 x 580mm	60



## 4-Store

- 2.5mm sheet steel construction
- 2 x 5-lever BS Locks
- Integrated single pin hinge
- Fully phosphated anti-corrosion protection
- Gas strut support arms
- Solid lock 'lid stay' system
- Fitted with shelf brackets
- Fork lift points for easy loading
- Crane hook anchor brackets

PART NO	EXTERNAL SIZE (H x L x D)	INTERNAL SIZE (H x L x D)	WEIGHT (KG)
S10280	1280 x 1282 x 735mm	1111 x 1121 x 665mm	173





# INDUSTRIAL HEATING



- 239 Industrial Fan Heaters
- 240 Destratification Units
- 241 Halogen Heaters
- 242 Radiant Cassettes
- 243 Outdoor Heaters
- 244 Pew Heaters
- 245 Explosion-proof Tubular Heaters



# INDUSTRIAL HEATING • INDUSTRIAL FAN HEATERS



- An effective means of heating industrial premises
- Extremely robust UK manufactured heaters
- Exceptional reliability – backed by a 5 year warranty
- Typical applications: warehouses, workshops and factories
- Heavy gauge steel construction
- Bracket provided with every heater for wall or ceiling mounting
- Suitable for vertical suspension – hooks provided as standard
- Built-in temperature control thermostat
- Optional control switch providing on/off/fan only settings
- A number of heaters can be controlled from a single point
- Ideally suited for use in conjunction with BN Thermic DSU destratification units

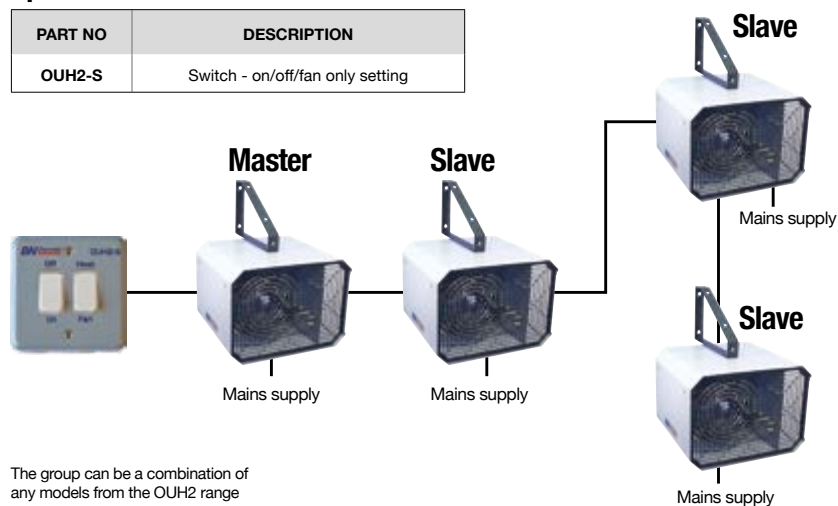


PART NO	kW	VOLTS	AIRFLOW (m³/h)	dB* @ 2m	DIMENSIONS (W x D x H)	WEIGHT (KG)
OUH2-03	3.0	230V or 400/3N	1100	60	435 x 405 x 320mm	18
OUH2-05	5.0	230V or 400/3N	1100	60	435 x 405 x 320mm	18
OUH2-07	7.5	230V or 400/3N	1100	60	435 x 405 x 320mm	18
OUH2-10	10	400V/3N	1100	60	435 x 405 x 320mm	18
OUH2-15	15	400V/3N	3150	62	565 x 485 x 445mm	37
OUH2-20	20	400V/3N	3150	62	565 x 485 x 445mm	37
OUH2-25	25	400V/3N	3150	62	565 x 485 x 445mm	37

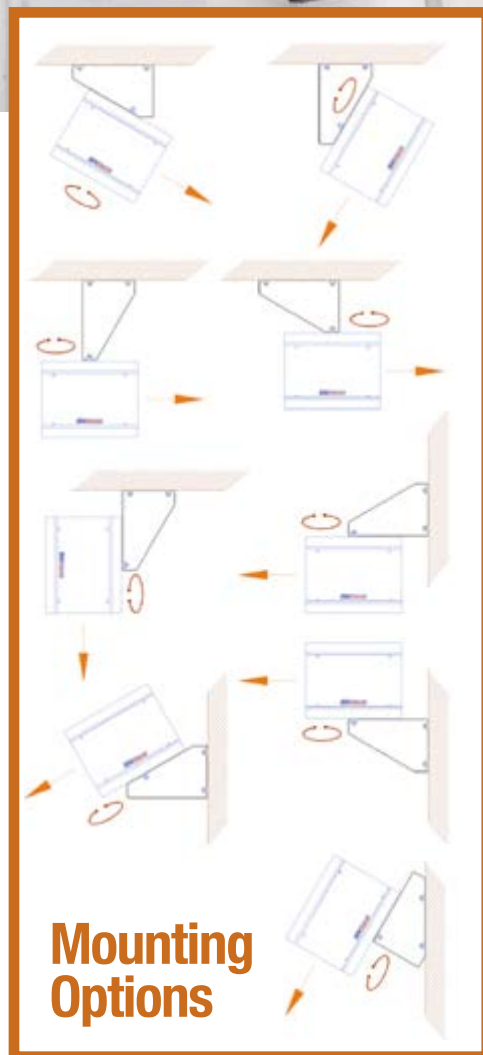
\*Noise levels are factory tested not laboratory tested

## Optional accessories

PART NO	DESCRIPTION
OUH2-S	Switch - on/off/fan only setting



The group can be a combination of any models from the OUH2 range

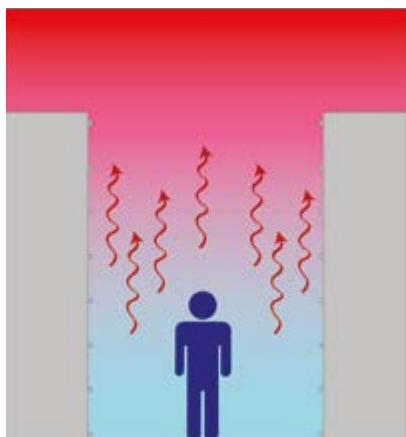


# INDUSTRIAL HEATING • DESTRATIFICATION UNITS



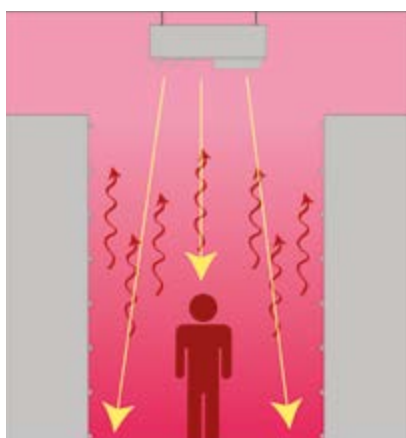
- Reduces heating bills by up to 30% by recycling warm air which accumulates at high level?
- Recommended for industrial premises where roof height exceeds 4m
- Typical applications: warehouses, exhibition halls and ideally suited for use in conjunction with BN Thermic's OUH2 industrial fan heaters
- Heavy duty steel construction
- Built-in thermostat automatically energises fan
- 4-way adjustable louvres
- Suspension kit supplied as standard (4 x 500mm chains and associated hooks)

## Warehouse example



### Without DSU

Warm air accumulates at high level



### With DSU

Warm air is recycled reducing heating costs by up to 30%



PART NO	VOLTS	AIRFLOW (m <sup>3</sup> /h)	FAN MOTOR (W)	DIMENSIONS (H x W x D)	ROOF HEIGHT (m)	AREA COVERED (m)	dB* @ 5m	WEIGHT (KG)
DSU-4	230	4000	200	385 x 560 x 560mm	4 to 7	20 x 20	45	18
DSU-8	230	8000	250	385 x 720 x 720	7 to 12	25 x 25	50	24

\*Noise levels are factory tested not laboratory tested



# INDUSTRIAL HEATING • HALOGEN HEATERS



- Heats people rather than space
- Ideal for heating specific targets within an otherwise unheated building
- Instantly effective and therefore ideal for infrequently used buildings
- Typical Applications: community halls, churches, workshops, packing areas, squash courts, factories and warehouses
- Aluminium construction with safety grille
- High quality replaceable halogen lamp with an average 7000 hours operating life
- Wall mounting bracket with 'up and down' and 'side to side' angle adjustment
- Gold lamp with pink/orange glow
- 1m high temperature cable (2 core and earth)

PART NO	kW	VOLTS	DIMENSIONS (H x W x D)	WEIGHT (KG)
HN2-1500G	1.5	230	275 x 420 x 140mm	3.8
HN2-2000G	2.0	230	275 x 420 x 140mm	3.8
HN2-3000G	3.0	230	430 x 420 x 140mm	5.5
HN2-4500G	4.5	230/400	590 x 420 x 140mm	6.5
HN2-6000G	6.0	230/400	590 x 420 x 140mm	6.5

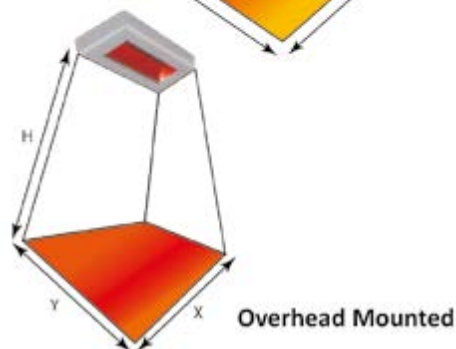
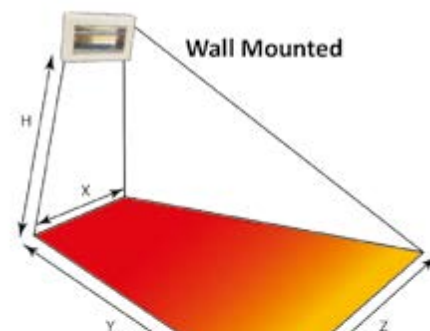


## Select appropriate W/m<sup>2</sup>

AREA	HEAVY WORK	LIGHT WORK	SPOT HEATING
HIGHLY INSULATED	150	200	250
INSULATED	175	225	250
UN-INSULATED	200	250	275
LIGHT CLADDING	250	300	300
BADLY INSULATED/DAMP	300	300	300

## Select heater type and mounting height

PART NO	WALL MOUNTED (H x X x Y x Z)	AREA COVERED (m <sup>2</sup> )	OVERHEAD MOUNTED (H x X x Y)	AREA COVERED (m <sup>2</sup> )
HN2-1500G or HN2-2000G	2.5 x 3.2 x 2.6 x 6.0m	11.9	3.0 x 3.0 x 2.0m	6.0
	3.0 x 3.4 x 3.6 x 6.7m	18.2	3.5 x 3.3 x 2.3m	7.6
HN2-3000G	3.0 x 3.7 x 3.6 x 7.0m	19.2	3.5 x 3.3 x 2.6m	8.6
	3.5 x 4.0 x 4.2 x 7.9m	25.0	4.0 x 5.0 x 3.1m	15.5
HN2-4500G or HN2-6000G	3.5 x 4.0 x 4.2 x 8.1m	25.4	4.0 x 5.0 x 3.4m	17.0
	4.0 x 4.3 x 4.5 x 8.4m	28.6	5.0 x 5.3 x 3.7m	19.6





# INDUSTRIAL HEATING • RADIANT CASSETTES



- An extremely economic means of heating large commercial spaces
- Attractive unobtrusive design well suited to modern facilities
- High mounting positions allows flexible use of floor and wall space
- Typical Applications: community halls, sports halls, showrooms, food halls and squash courts
- Radiant heat without light output
- Robust steel case with white epoxy finish
- Specially treated aluminium heat emitter
- Ceiling mounting brackets supplied as standard (these brackets also provide suspension points)
- Optional angle adjustable wall brackets available



PART NO	kW	VOLTS	DIMENSIONS (H x W x D)	RECOMMENDED MOUNTING HEIGHT (m)	WEIGHT (KG)
ESP2-09	0.9	230	60 x 1550 x 150mm	3.0 Min / 8.0 Max	5.8
ESP2-12	1.2	230	60 x 1550 x 150mm	3.0 Min / 8.0 Max	5.8
ESP2-18	1.8	230	60 x 1550 x 250mm	3.5 Min / 8.0 Max	9.9
ESP2-24	2.4	230	60 x 1550 x 250mm	3.5 Min / 8.0 Max	9.9
ESP2-30	3.0	230/400	60 x 1550 x 350mm	3.5 Min / 8.0 Max	13.9
ESP2-36	3.6	230/400	60 x 1550 x 350mm	3.5 Min / 8.0 Max	13.9

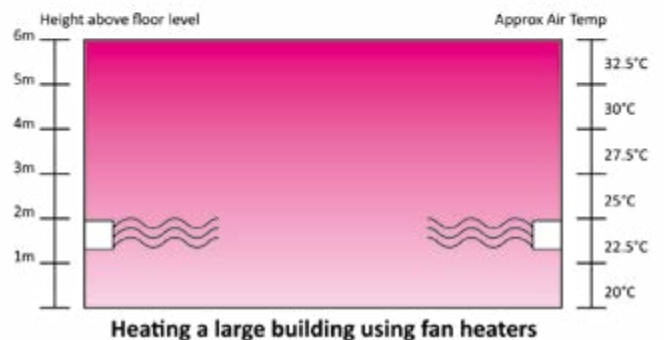
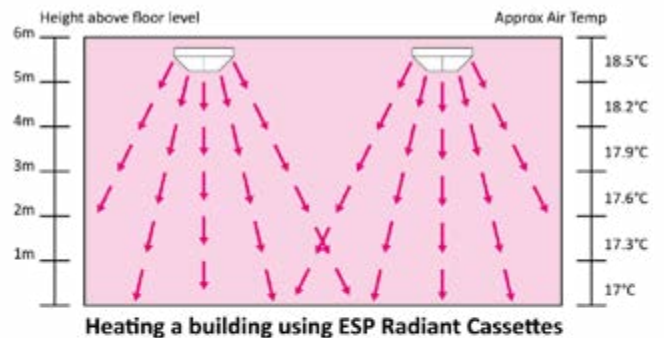
ESP2-B (OPTIONAL WALL BRACKET- PAIR)



## ENERGY SAVING

ESP Radiant Cassettes are our most economic heaters for buildings with high roofs for the following reasons:

- The gentle radiant effect means that the 'experienced temperature' can be up to 4°C warmer than the actual air temperature. This means that the thermostat can be set up to 4°C lower
- The temperature gradient is negligible. Typically air temperature will increase by 0.3°C per metre above floor level. This figure compares to a typical 2.5°C per metre when using fan heaters



# INDUSTRIAL HEATING • OUTDOOR HEATERS



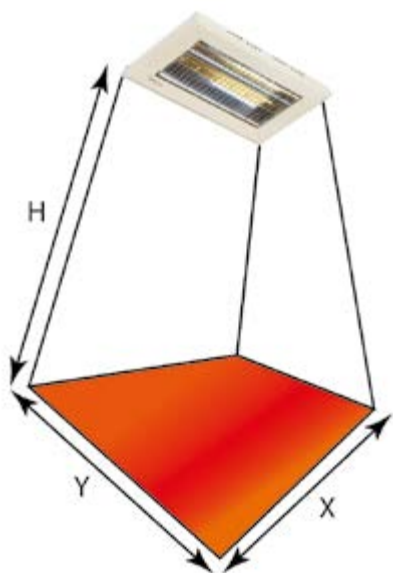
- Safe, instant outdoor heating
- Equally suitable for commercial or domestic installations
- Can be installed outdoors and left outdoors all year round
- IP55 rated
- Typical Applications: patios – both commercial and domestic, pub gardens, pavement cafés, golf driving ranges, nightclub queuing areas and smoking areas
- Aluminium construction with stainless steel safety grille

- Stylish design with choice of black, white or silver paint finish
- High quality replaceable halogen lamp with an average 7000 hours operating life
- Wall mounting bracket with 'up and down' angle adjustment supplied as standard
- Parasol clamp supplied as standard with single lamp heaters
- Suitable for suspension
- 3m high temperature cable

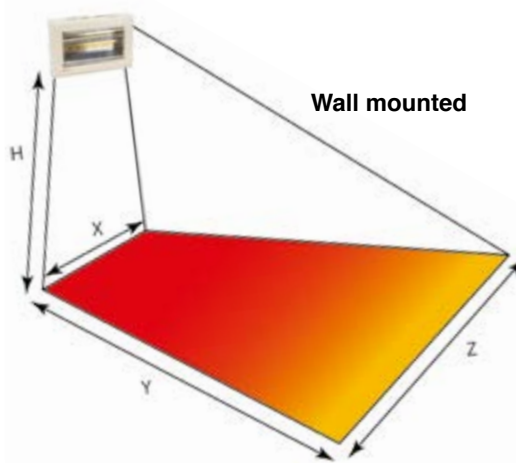
PART NO	kW	FINISH	VOLTS	LAMP TYPE	GLOW	DIMENSIONS (H x W x D)	WEIGHT (KG)
HWP2-B	1.5	Black	230	Frosted	Gold	120 x 480 x 140mm	1.7
HWP2-W	1.5	White	230	Frosted	Gold	120 x 480 x 140mm	1.7
HWP2-S	1.5	Silver	230	Frosted	Gold	120 x 480 x 140mm	1.7
HWP2-2B	2.0	Black	230	Gold	Red	120 x 480 x 140mm	1.7
HWP2-2W	2.0	White	230	Gold	Red	120 x 480 x 140mm	1.7
HWP2-3B	3.0	Black	230	Gold	Red	120 x 960 x 140mm	3.2
HWP2-3W	3.0	White	230	Gold	Red	120 x 960 x 140mm	3.2
HWP2-45B	4.5	Black	230/400	Gold	Red	120 x 1440 x 140mm	4.9



Overhead mounted



Wall mounted

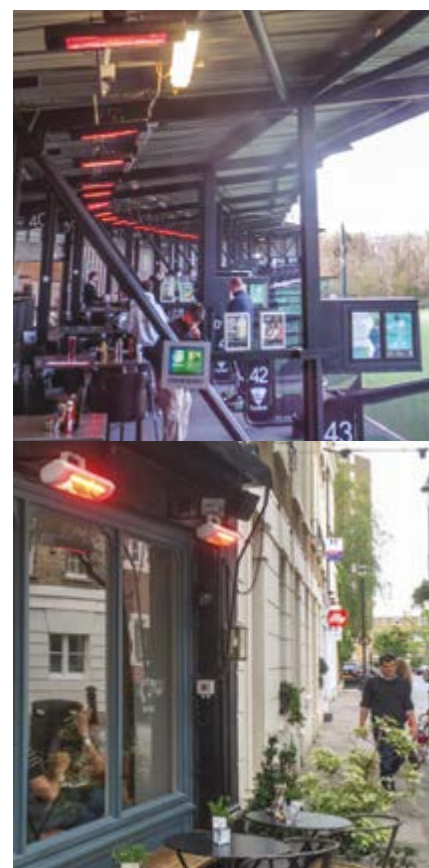


Area coverage - overhead mounted

kW	H (m)	X (m)	Y (m)	AREA (m <sup>2</sup> )
1.5 or 2kW	2.0	3.6	2.5	9.0
1.5 or 2kW	2.5	4.8	3.5	16.8
3.0	2.0	4.3	2.5	10.7
3.0	2.5	5.2	3.5	18.2
4.5	2.0	4.8	2.5	12.0
4.5	2.5	5.6	3.5	19.6

Area coverage - wall mounted

kW	H (m)	X (m)	Y (m)	Z (m)	AREA (m <sup>2</sup> )
1.5 or 2kW	2.0	2.3	2.4	4.0	7.6
1.5 or 2kW	2.5	3.0	3.0	5.2	12.3
3.0	2.0	3.4	2.4	4.5	9.5
3.0	2.5	4.2	3.0	5.8	15.0
4.5	2.0	4.3	2.4	5.0	11.2
4.5	2.5	4.8	3.0	6.4	16.8





# INDUSTRIAL HEATING • PEW HEATERS



- An economic means of heating a church congregation
- Minimal pre-heating required ensuring low running costs
- Visually unobtrusive
- Robust all-steel construction
- Dark brown paint finish
- Fixed directly to a pew's backboard or mounted on floor or suspension brackets

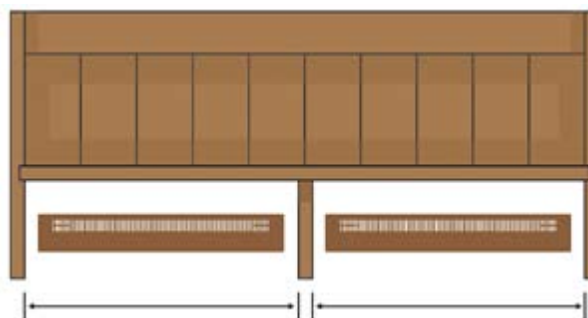
PART NO	KW	VOLTS	DIMENSIONS (L x D x H)	WEIGHT (KG)
PH30	0.3	230	525 x 58 x 168mm	2.5
PH45	0.45	230	702 x 58 x 168mm	3.2
PH65	0.65	230	948 x 58 x 168mm	4.2

## Mounting Brackets

PART NO	DESCRIPTION
PFB	Floor bracket (pair) assembled height 204mm
PHB	Suspension bracket (pair) assembled height 290mm



## Pew Heater Section Table



SPACE BETWEEN SEAT SUPPORTS	RECOMMENDED HEATER
600mm minimum / 750mm maximum	PH30
750mm minimum / 1000mm maximum	PH45
1000mm minimum / 1500mm maximum	PH65
1500+mm minimum	Multiple heaters





# INDUSTRIAL HEATING • TUBULAR HEATERS



**BN**thermic

## Explosion-proof Tubular Heater



- ATEX Certified for use in Hazardous Areas
- Typical applications: spray shops, petrochemical installations and storage areas where hazardous gases or dusts may be present
- Equipment protection level Gb (gas) and Db (dust)
- Certified for Zones 1, 2, 21 and 22
- Groups IIC (gas) and IIIC (dust)
- Temperature Class T3 (maximum ambient 40°C)
- IP66 rating
- Steel construction with grey epoxy finish
- Sturdy mounting feet for wall or floor mounting

PART NO	kW	DIMENSIONS (L x H x D)	WEIGHT (KG)
TXT3-05	0.5	850 x 157 x 100mm	11.5
TXT3-10	1.0	1450 x 157 x 100mm	16.0
TXT3-15	1.5	2050 x 157 x 100mm	19.5



### Optional thermostat

PART NO	DESCRIPTION
TXST-01	ATEX thermostat (hazardous gas only)



**BN**thermic

## SWD Industrial Finned Tubular Heater

- Welded stainless steel construction
- Typical applications include water treatment facilities, pumping stations, lift shafts, industrial Kiosks, GRP enclosures
- Often used for frost protection
- Waterproof glass fibre terminal box IP66 rated
- Built-in adjustable thermostat (SWD-A models only)
- M20 cable gland supplied as standard
- Optional zinc plated wire guards available
- 110V models available
- All units 130mm (W) x 170mm (H)

PART NO	kW	VOLTS	BUILT-IN THERMOSTAT	LENGTH (MM)	OPTIONAL GUARD
SWD-A-500	0.5	230	Yes	440	SWG-1
SWD-A-1000	1	230	Yes	640	SWG-2
SWD-A-1500	1.5	230	Yes	840	SWG-3
SWD-A-2000	2	230	Yes	1040	SWG-3
SWD-A-3000	3	230	Yes	1440	SWG-4
SWD-U-500	0.5	230	No	440	SWG-1
SWD-U-1000	1	230/400	No	640	SWG-2
SWD-U-1500	1.5	230/400	No	840	SWG-3
SWD-U-2000	2	230/400	No	1040	SWG-3
SWD-U-3000	3	230/400	No	1440	SWG-4
SWD-U-4000	4	230/400	No	1840	SWG-5



# INDUSTRIAL LIGHTING



- 247 LED Lighting
- 264 LED Emergency Lighting
- 267 LED Light Modules
- 268 Lighting Control
- 270 Lamps & Tubes

**NEW HIGH EFFICIENCY LED**



## Impact V

- The Impact V is a versatile LED lowbay / highbay fitting with high efficiency and a range of light outputs. Our new model is more efficient and cost effective
- IP20 rated
- 8,782 to 26,433 lumen outputs
- 3K, 4K or 5K LEDs
- Integral emergency options
- LED acrylic diffuser
- IP54 & IP65 versions available

PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
YV-72-55-LED-4K-HE	55	8782	159.6
YV-108-83-LED-4K-HE	83	13174	158.7
YV-144-110-LED-4K-HE	110	17622	160.2
YV-180-138-LED-4K-HE	138	22027	159.6
YV-210-161-LED-4K-HE	161	26433	164.1

## Impact Sport

- The Impact Sport has a steel louvred front with double protection, ideal for sports halls & gyms
- IP20 Rated
- Steel louvred front
- Glare reduction with front grill
- Includes sensor protection (when installed)
- Integral emergency options
- 3K, 4K or 5K LEDs



PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
YV-SP-72-55-LED-4K-HE	55	8782	159.6
YV-SP-108-83-LED-4K-HE	83	12003	144.6
YV-SP-144-110-LED-4K-HE	110	16055	145.9
YV-SP-180-138-LED-4K-HE	138	20069	145.4
YV-SP-210-161-LED-4K-HE	161	24083	142.5

## Options & Accessories

PART NO	DESCRIPTION
EM	Integral Emergency (4W)
EMST	Integral Emergency Self Test (4W)
DD	SwitchDIM/DALI -
CF	Corridor Function
PIR	Programmable PIR

PART NO	DESCRIPTION
MWH	Programmable Microwave Sensor (up to 12m)
WL	Wireless Control System
PIRW	Long Range PIR for wireless system
SURF-BKT	Surface/Trunking Mounting Bracket
IP54	IP54 version
IP65	IP65 version





**NEW HIGH EFFICIENCY LED**



## Starlux LED

- LED aisle racking and high bay luminaire. The energy efficient, high performance LED luminaire for warehouse and factory applications
- IP20 Rated
- Aisle racking applications
- 70% energy saving over T5
- 15m spacings, 10m high to achieve 250 Lux
- 10W per square metre
- IP65 version available
- Cold store version available



PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
Y95-LIN-A-4K	95	12970	136.5
Y125-LIN-A-4K	125	16212	129.7
Y160-LIN-A-4K	160	20099	125.6
Y190-LIN-A-4K	190	24386	128.3

## Options & Accessories

PART NO	DESCRIPTION
EM	Integral Emergency (4W)
EMST	Integral Emergency Self Test (4W)
DD	SwitchDIM/DALI -
CF	Corridor Function
PIR	Programmable PIR

PART NO	DESCRIPTION
MWH	Programmable Microwave Sensor (up to 12m)
WL	Wireless Control System
PIRW	Long Range PIR for wireless system
LIN-BKT	Surface/Trunking Mounting Bracket
IP65	IP65 version



## Gale LED

- Surface mounted corridor or office fitting with low UGR rating. Polycarbonate diffuser and screw retained end caps for security
- IP20 Rated
- Surface LED fitting
- Polycarbonate diffuser
- Screw retained end caps for security
- 3K, 4K & 5K Ra80 colour options
- Completely flush ceiling mounted luminaire
- Smooth, easy clean design



PART NO	WATTS	LENGTH	LUMINAIRE LUMENS	LL/CW
Y22-LED-4K-HE	22	1200mm	2968	134.9
Y32-LED-4K-HE	32	1200mm	4316	134.9
Y44-LED-4K-HE	44	1200mm	5935	134.9
Y27-LED-4K-HE	27	1500mm	3642	134.9
Y38-LED-4K-HE	38	1500mm	5126	134.9
Y53-LED-4K-HE	53	1500mm	7149	134.9
Y48-LED-4K-HE	48	1800mm	6475	134.9
Y68-LED-4K-HE	68	1800mm	9173	134.9

## Options & Accessories

PART NO	DESCRIPTION
EM	Integral Emergency (1W)
EMST	Integral Emergency Self Test (1W)
DD	SwitchDIM/DALI
CF	Corridor Function
MW	Microwave
WL	Wireless Control System

**NEW HIGH  
EFFICIENCY  
LED**



## Dustproof GRP LED

- Our LED Polycarbonate Dustproof luminaire with GRP bodies. It has been engineered for general, industrial and commercial applications.
- IP65 Rated
- 2500 to 5000 luminaire lumens
- 3K, 4K or 5K LED available
- Integral emergency options
- Polycarbonate injection moulded diffusers
- Cable entries with grommets at both ends
- GRP bodies

PART NO	WATTS	FITTING	LUMINAIRE LUMENS	LL/CW
Y11/2/CO/4K	8	600mm Single	1049	131.1
Y22/4/CO/4K	19	1200mm Single	2491	131.1
Y33/5/CO/4K	23	1500mm Single	3016	131.1
Y33/6/CO/4K	33	1800mm Single	4327	131.1
Y22/2HO/4K	16	600mm Twin	2098	131.1
Y44/4HO/4K	31	1200mm Twin	4064	131.1
Y55/5HO/4K	35	1500mm Twin	4589	131.1
Y55/6HO/4K	47	1800mm Twin	6162	131.1

### Options & Accessories

PART NO	DESCRIPTION
EM	3hr maintained emergency
SS	Stainless Steel Clips
5K	Colour 850 (5000K) 5K
3K	Colour 830 (3000K) 3K



## Xtreme LED+

- The XtremeLED+ is a highly efficient LED IP65 fitting with LED opal diffuser. It comes complete with stainless steel clips as standard
- IP65 Rated
- All polycarbonate housing
- LED opal diffuser
- Integral sensor option
- Integral emergency options
- Stainless Steel Clips as standard
- Security Clips available
- 3K, 4K or 5K LED available

PART NO	WATTS	FITTING	LUMINAIRE LUMENS	LL/CW
Y10-LED-S-4K-HE	6	2ft Single	899	141.8
Y18-LED-S-4K-HE	13	4ft Single	1797	141.8
Y27-LED-S-4K-HE	16	5ft Single	2246	141.8
Y28-LED-S-4K-HE	19	6ft Single	2696	141.8
Y20-LED-T-4K-HE	13	2ft Twin	1797	141.8
Y36-LED-T-4K-HE	25	4ft Twin	3594	141.8
Y45-LED-T-4K-HE	32	5ft Twin	4493	141.8
Y54-LED-T-4K-HE	38	6ft Twin	5391	141.8

### Options & Accessories

PART NO	DESCRIPTION
EM	Integral Emergency (1W)
EMST	Integral Emergency Self Test (1W)
DD	SwitchDIM/DALI
CF	Corridor Function
WL	Wireless Control System
PIRS	Short Range PIR for Wireless System
MWP	Remote Programmable Microwave



NEW HIGH EFFICIENCY  
**LED**



## Lightpack LED

- The LED lightpack is an energy saving lighting concept, which can be fitted with a variety of sensors for further savings
- IP20 Rated
- Manufactured from mild steel with white paint finish with a specially designed PMMA diffuser
- Constant output driver with colour 840 as standard
- 3K, 4K or 5K LED available

PART NO	WATTS	FITTING	LUMENS	LL/CW
Y2/CO/4K	12	2Ft Single	1440	120.0
Y4/CO/4K	22	4Ft Single	2923	132.8
Y5/CO/4K	27	5Ft Single	3507	129.0
Y6/CO/4K	34	6Ft Single	4384	129.0
Y2T/CO/4K	22	2Ft Twin	2880	130.0
Y4T/CO/4K	32	4Ft Twin	4092	128.0
Y5T/CO/4K	37	5Ft Twin	4670	126.0
Y6T/CO/4K	47	6Ft Twin	6138	130.0

### Options & Accessories

PART NO	DESCRIPTION
M3	3hr maintained emergency
BK	Black
SI	Silver
5K	Colour 850 (5000K)
3K	Colour 830 (3000K)



## Strong Hold

- A high quality luminaire with clean lines, vandal resistant and tested to BSEN60529: 1992 and A2: 2013. On correct installation the Stronghold luminaire can attain anti-ligature status
- IP65 Rated
- Flat Opal Polycarbonate material
- Manufactured from mild steel with traffic white primed, painted and lacquered finish as standard
- Anti-ligature luminaire
- 3K, 4K or 5K LEDs
- IK10+

PART NO	WATTS	FITTING	LUMENS	LL/CW
Y11/2/CO/5K	11	600mm Single	1361	123.7
Y22/3/CO/5K	22	900mm Single	2722	123.7
Y22/4/CO/5K	22	1200mm Single	2722	123.7
Y33/5/CO/5K	33	1500mm Single	4083	123.7
Y33/6/CO/5K	33	1800mm Single	4083	123.7
Y22/2T/CO/5K	22	600mm Twin	2722	123.7
Y44/3T/CO/5K	44	900mm Twin	5444	123.7
Y44/4T/CO/5K	44	1200mm Twin	5444	123.7
Y66/5T/CO/5K	66	1500mm Twin	8166	123.7
Y66/6T/CO/5K	66	1800mm Twin	8166	123.7

### Options & Accessories

PART NO	DESCRIPTION
M3	3hr maintained emergency
4K	Colour 840 (4000K)
3K	Colour 830 (3000K)
SI	Silver
BK	Black
CM	Corner mounted design





**NEW HIGH  
EFFICIENCY  
LED**



## Regor6 LED

- High quality LED floodlight constructed from polycarbonate and stainless steel non-corrosive construction is ideal for coastal areas
- IP65 Rated
- Tough polycarbonate UV resistant housing
- Tridonic constant current control gear
- Excellent passive thermal control
- Stainless steel and polycarbonate
- Colour LED on request to options
- 3K, 4K or 5K LEDs

PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
Y304K	30W	3920	147.0
Y454K	45W	6006	147.0
Y604K	60W	7400	142.0

### Options & Accessories

PART NO	DESCRIPTION
PC	Integral Photocell

## Regor11 LED

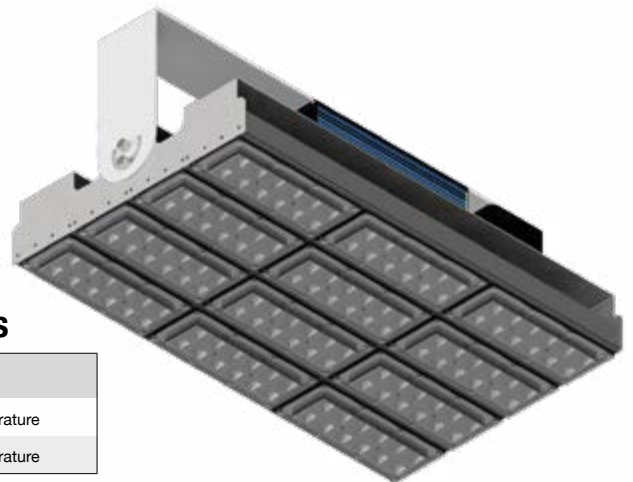
- The RegorLED 11 is the ultimate LED solution for traditional SON and metal halide floodlight fixtures, providing optimum light output. It is ideal for general flood lighting, high mast lighting, security and sport applications.

- Up to 142,500 lumens
- IP65 Rated
- Range of Wattages available
- Osram LEDs

PART NO	WATTS	LUMENS	LL/CW
Y160-5K	160	24000	150.0
Y320-5K	320	48000	150.0
Y480-5K	480	72000	150.0
Y800-5K	800	120000	150.0
Y950-5K	950	142500	150.0

### Options & Accessories

PART NO	DESCRIPTION
3K	3000K Colour Temperature
4K	4000K Colour Temperature



## Hygrow LED

- Our HygrowLED horticultural fitting has a modular design to make it easy to scale to production.
- IP65 Welded Aluminium Body
- Integral Passive Thermal Control
- Osram Oslon LEDs
- Range of Spectral Outputs Inc Custom Blends
- Up to 1200 Micromoles - 3.03  $\mu\text{mol}/\text{j}$
- Supplemental and Sole Source Options

PART NO	WATTS	$\mu\text{MOL}/\text{S}$	$\mu\text{MOL}/\text{J}$
Y160P	160	400	2.5
Y320P	320	800	2.5
Y480P	480	1200	2.5

### Options & Accessories

PART NO	DESCRIPTION
SUS1	Hanging Kit
CON103	Slave Feed Cable
DD	Dimming Control Gear
LDR	Daylight Linking Control
WL	Wireless Data Control
SP	Spectral Tuning





## Visage LED

- The VisageLED 2 is an IP65 street lighting head complete with a Tridonic driver and Nichia LEDs. It is available in a range of sizes and outputs.
- IP65 Construction
- Osram LEDs
- Tridonic Driver
- Quick access for easy maintenance
- Clip in Gear Tray



PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
Y2S-28-1-4K-60	27	3780	140.0
Y2S-56-2-4K-60	52	7354	141.0
Y2M-78-3-4K-60	78	10290	132.0
Y2L-105-4-4K-76	105	14700	136.0

### Options & Accessories

PART NO	DESCRIPTION
N	NEMA Photocell
SPA	Spigot Adapter 60mm - 76mm
DD	DALI/Virtual Midnight

## Sentinel Wallpack

- The Sentinel is a robust and versatile wall mounted luminaire constructed from vandal resistant diecast aluminium with a polycarbonate diffuser
- IP65 Rated
- Flush mounting to prevent fitting being levered away from the wall
- Easy installation/maintenance
- 3K, 4K or 5K LEDs
- Captive fixings and rugged construction for a long service life
- All gaskets are manufactured from heat resistant silicone rubber
- IK10



### Options & Accessories

PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
Y12/CO/BK/850	12	1340	111.6
Y17/CO/BK/850	17	1985	116.7
Y20/CO/BK/850	20	2792	139.6
Y30/CO/BK/850	30	3598	139.6
Y40/CO/BK/850	40	4466	111.6

PART NO	DESCRIPTION
LS3	3hr sustained emergency
M3	3hr maintained emergency
3K	Colour 830 (3000K)
4K	Colour 840 (4000K)
SNT/CBI	Internal corner bracket
SNT/CBE	External corner bracket

## LED 8 Anti-ligature Luminaire

- The LED8 is an IP44 rated anti-ligature wall and ceiling luminaire. It comes in a range of outputs and integral control options.
- LED opal polycarbonate diffuser
- Security screws as standard
- Integral control options
- Integral emergency options
- 3K, 4K or 5K LED available



### Options & Accessories

PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
Y48704K-HE	10	1445	144.5
Y48104K-HE	14	2023	144.5
YL48704K-HE	21	3035	144.5

PART NO	DESCRIPTION
EM	Integral Emergency (1 Watt)
EMST	Integral Emergency Self Test (1 Watt)
CF	Corridor Function Master
MWP	Remotely Programmable Microwave
DD	SwitchDIM/DALI

NEW HIGH  
EFFICIENCY  
**LED**



## Legion Round

- IP65 surface mounted luminaire constructed of diecast aluminium housing with a UV stabilised polycarbonate vandal resistant diffuser.
- Available in a variety of colours
- Constant output driver with colour 850 as standard
- White polyester paint finish as standard
- Allen key entry
- IK10+



PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
YL8/CO/850	8	993	124.1
YL14/CO/850	14	1340	111.6
YL17/CO/850	17	1985	116.7
YL20/CO/850	20	2792	139.6
YL30/CO/850	30	3598	119.9
YL40/CO/850	40	4466	111.6

## Knight Round

- An IP65 rated surface mounted luminaire. The housing and hood (front) are diecast aluminium with a UV stabilised vandal resistant diffuser in polycarbonate.
- Constant output driver with colour 850 as standard
- White polyester paint finish as standard
- Allen key entry
- IK10+

PART NO	WATTS	LUMINAIRE LUMENS	LL/CW
YK8/CO/5K	8	993	124.1
YK12/CO/5K	12	1340	111.6
YK17/CO/5K	17	1985	116.7
YK20/CO/5K	20	2792	139.6
YK30/CO/5K	30	3598	119.9
YK40/CO/5K	40	4466	111.6



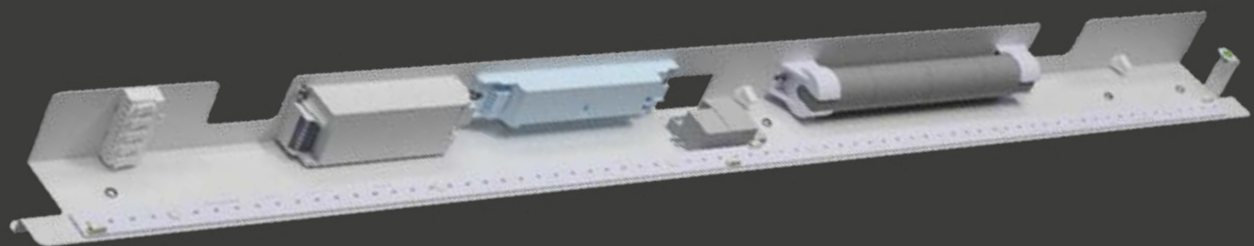
## Options & Accessories

PART NO	DESCRIPTION
LS3	3hr sustained emergency
M3	3hr maintained emergency
3K	Colour 830 (3000K)

PART NO	DESCRIPTION
4K	Colour 840 (4000K)
AD	1-10V Analogue dimming
DL	Dali addressable dimming

## Bespoke Solutions

YESSS Industrial are partnered with a specialist UK manufacturer of commercial lighting equipment. The company has massive lighting experience linked with the capability of producing a wide range of special luminaire solutions in their UK based factories. They have specialist skills in the production of bespoke solutions to your lighting issues.



They can produce a simple modification to an existing design, full gear tray solutions or produce a complete bespoke luminaire suited to your application.



# YESSS INDUSTRIAL LIGHTING SOLUTIONS

## Case Study: Drax Power Station Main Turbine Hall

### Background

Drax Power Station in North Yorkshire powers 7% of the UK's Electricity supply from its 6 Boilers, 1,800 miles of steel tubing, 12 cooling towers and six turbines. 70% of their generated electricity is generated with lower Carbon emissions than fossil fuels after having successfully converting 3 of its generating units to Biomass, making it the UK's largest Biomass Power Station.

### Project Brief

Drax wished to continue investing in innovative technology reducing their Carbon emissions further by utilising LED technology inside their Turbine Hall.

The impressive Turbine Hall houses six massive turbine generators each generating 660MW of power. The Turbine hall is 426m in length and 24m in height with complex multiple levels for access to machinery.

The main lighting was provided by 169 x 1000W Sodium Lamps mounted at 22m high and is switched on 24/7 all year round. The output of these luminaires had significantly deteriorated over time. The lighting can only be maintained and accessed via the overhead cranes which then require erection of scaffolding on top to further access the luminaires. Access and maintenance of the luminaires is also restricted due to safety documents, crane usage and other ongoing maintenance in the Turbine Hall. However all this needs to be taken into account and precise planning to ensure the maintenance can be carried out in preparation of the annual major outages. This maintenance requires contribution from a staggering number of people – 30! Drax therefore required a reliable fit and forget LED solution that they could trust whilst offering substantial energy and carbon savings.

Further to the Turbine Hall lighting Drax also looked to cascade this innovative technology to their 2 Gas Turbine Halls which were originally provided by a combined 52 x 400W Sodium Lamps – 22 in the South Gas Turbine Hall and 30 in the North Gas Turbine Hall.







## Solution

Through close partnership with Drax power station and YESSS Industrial, a solution was engineered to solve the historic issues of challenging maintenance planning and immense energy consumption whilst enhancing the ambient light levels from a difficult height of 22 metres. Through this solution a reduction was made from 160 kilowatts to 40 kilowatts, giving increased lighting levels in crucial maintenance areas whilst ensuring maximum reliability and safety.

A common factor in LED lighting is that the LED Driver is usually the weakest part of any lighting design. Here at YESSS Industrial we chose to work with a UK manufacturer who utilised years of experience in electronics design and manufacture their own LED Driver and Light Engine resulting in a product of the highest quality and reliability. The driver is designed with a mean time between failure (MTBF) of 93,000hrs closely matching the LED Lumen Maintenance lifetime of 100,000hrs to L70.

Due to the supplementary lighting around the Turbine Hall we selected the 210W High Bay with a 50° optic which is ideal for applications that are of substantial height. This allows the emitted light to be projected on to the floor level rather than dispersed around the Turbine Hall.

ENERGY SAVING %	ENERGY SAVING P.A.	CARBON SAVING P.A.	LED LIFETIME
84%	1,854 MW	973 Tonnes	11.4 Years







## What is SELECT?

The solraySELECT, horizonSELECT, and barracudaSELECT product ranges are the next generation of LED lighting, allowing the installer to easily select up to 8 lumen outputs on each product at the point of installation by using a simple switch on the driver.

## Why choose SELECT?

**EVEN LIGHT DISTRIBUTION** - It's very common for a single space to have lighting at variable heights. Now, with the SELECT ranges, a single product at different settings can provide even light throughout the same space.

**SALIX GRANT** - Having the flexibility of light output ensures that Salix grant requirements can be easily met for every installation

**COST REDUCTION** - Highly efficient and incredibly flexible, the SELECT range provides a very quick return on Investment

**LIGHT LEVELS** - It takes just a few seconds for the contractor to easily change the light levels ensuring client satisfaction with light levels on every installation

**FUTURE-PROOF** - Light levels can be adjusted at any time during the product's lifetime

**STOCK LEVELS** - Significantly reduces the need for lots of stock lines, meaning the wholesaler is much more likely to have stock available



## Solray Select LED Linear Batten

The Solray Select LED batten is the next generation of LED lighting. High-quality, attractive and easy to install, the Solray Select allows the client to easily select the lumen output of each product at the point of installation with a simple switch on the driver. Available in a range of sizes and with emergency options, this is a versatile batten with a range of installation options - surface mount, clip-on brackets or cable-mount. With an opaque polycarbonate diffuser and aluminium housing this product is designed to look good and last for 50,000 hours.

- Selectable output: 18W-60W
- Push Fit connectors
- Available as 4ft or 5ft

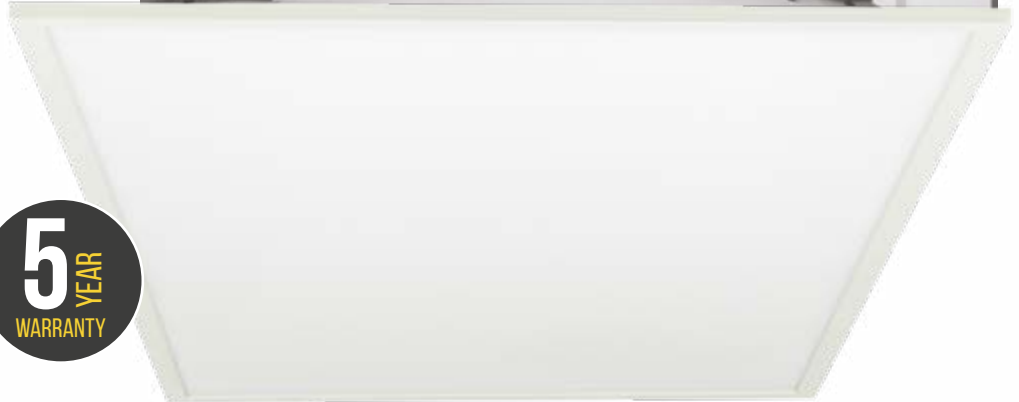




## Horizon Select Selectable Output LED Ceiling Panel

The Horizon Select Panel is an innovative, high output, long-life, flicker-free panel. The Horizon Select is designed to allow the client to choose the lumen output at the point of installation and is designed for projects where the highest quality is required to meet with a demanding technical specification.

- Selectable output: 27W-36W
- 105 lumens per system watt
- Also available in UGR<19 and Tp(b) options



## Barracuda Select LED Non-Corrosive Linear Fittings

The Barracuda Select non-corrosive linear range offers the most innovative and flexible non-corrosive products. Using the highest quality Samsung LED chips and Tridonic drivers, the Barracuda Select is designed to allow the client to choose the lumen output at the point of installation with a simple switch. The Barracuda Select is low-glare using a prismatic diffuser and can be either surface mounted or suspended using stainless steel brackets. It is available in a range of emergency and dimmable options.

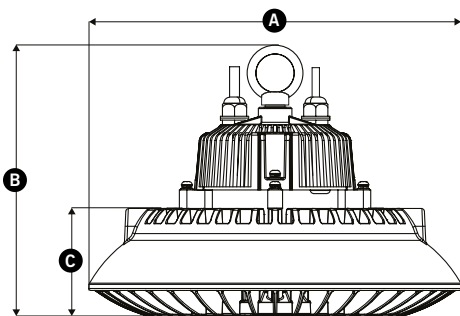
- Selectable output: 20W-63W
- IP66 rated for jet spray and dust protection
- Available as 4ft or 5ft
- Push Fit connectors





## LED Highbay IP65

- Luminaire efficacy up to 140 Lumen/Watt
- Superbly reliable Mean Well HBG driver with built in 1-10V dimming function
- Latest technology Nichia LED
- Black or White housing
- Lightweight innovative heat sink design, no dust accumulation
- Hollow Magnesium alloy housing
- Colour temperature: 5000K
- Colour Rendering Index: >80
- Beam spread: 120°, Clear Tempered glass
- Rated Life (L70): 50,000 Hours
- Operating temperature: -40°C to 50°C (Amb.)
- Input Voltage and Frequency: 100-240V AC, 50/60Hz
- Power Factor: >0.95
- IP/IK Rating: IP65/IK08
- Installation: Fixed suspension ring
- Pre-wired Cable: 1.0m



PART NO.	DESCRIPTION	POWER (W)	MEASUREMENT (A x B x C)	WEIGHT (KG)	DIMMABLE FUNCTION	LUMEN OUTPUT	IP RATING	POWER FACTOR	CRI	COLOUR TEMPERATURE
LXHB100BCW	LED Highbay 120° - Black	100	300 x 205 x 86mm	4.1	1-10V	14000	IP65	>0.95	>80	5000K
LXHB150BCW	LED Highbay 120° - Black	150	300 x 205 x 86mm	4.5	1-10V	21000	IP65	>0.95	>80	5000K
LXHB200BCW	LED Highbay 120° - Black	200	300 x 212 x 86mm	5.25	1-10V	28000	IP65	>0.95	>80	5000K
LXHB100WCW	LED Highbay 120° - White	100	300 x 205 x 86mm	4.1	1-10V	14000	IP65	>0.95	>80	5000K
LXHB150WCW	LED Highbay 120° - White	150	300 x 205 x 86mm	4.5	1-10V	21000	IP65	>0.95	>80	5000K
LXHB200WCW	LED Highbay 120° - White	200	300 x 212 x 86mm	5.25	1-10V	28000	IP65	>0.95	>80	5000K

### Options & Accessories

PART NO.	DESCRIPTION	MEASUREMENT (mm)	WEIGHT (KG)	FUNCTION
LXHB-REFM-60	Aluminium Reflector - 60°	355 x 150	0.4	Improved beam control - use in high mounting positions or narrow aisle areas
LXHB-REFM-90	Aluminium Reflector - 90°	355 x 150	0.55	Improved beam control - use in medium to high mounting positions in open areas
LXHB-REFA-70	Acrylic Reflector - 70°	410 x 275	1.1	Reeded diffuser - allows directional light spill through the translucent material
LXHB-MSB	Microwave Sensor - Black	72 x 59	0.35	Direct to Highbay or Reflector mounting - Motion and Daylight sensor, IP65, 1-10V dim
LXHB-MSW	Microwave Sensor - White	72 x 59	0.35	Direct to Highbay or Reflector mounting - Motion and Daylight sensor, IP65, 1-10V dim

## LED Lowbay

- Slim profile Lowbay, ideal energy saving replacement for traditional HID fittings
- Ultra efficient up to 130 Lumen/Watt
- Superbly reliable MEANWELL ELG driver 1-10V dimmable as standard
- Latest LED technology: PHILIPS Lumileds
- Pure aluminium heatsink, Polycarbonate cover lens
- Impact protection rating: IK08
- Beam spread: 120°
- Wire suspension fixing kit included
- IP Rating: IP20
- Colour temperature: 5000k
- Colour rendering index: >80
- Rated Life: 50,000 hours
- Operating temperature: -40°C to 50°C
- Options available: Surface mounting bracket kit, Microwave Sensor kit, Sensor programming handset



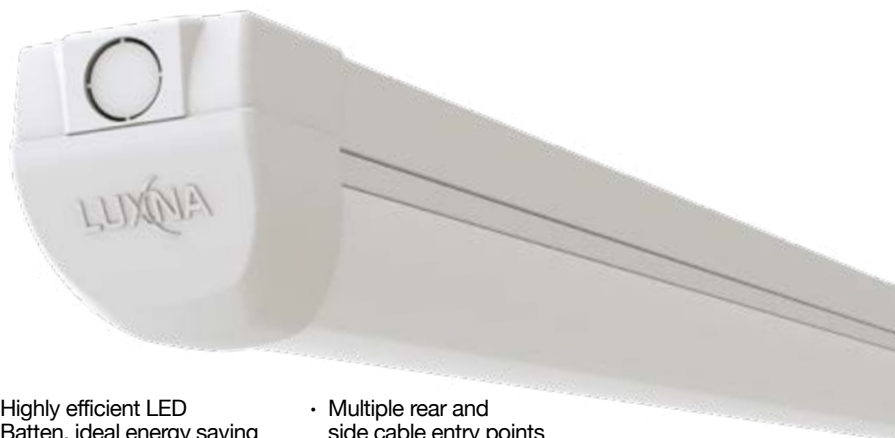
PART NO.	POWER (W)	MEASUREMENT (L x W x H)	LUMEN OUTPUT	IP RATING	COLOUR TEMP
LXLB100WCW	100	579 x 245 x 59mm	13000	IP20	5000K
LXLB150WCW	150	579 x 359 x 59mm	19500	IP20	5000K
LXLB200WCW	200	579 x 359 x 59mm	26000	IP20	5000K

## Options & Accessories

PART NO.	ACCESSORY	DESCRIPTION
LXLB-BMK	Bracket Mounting Kit	2 x Brackets, 8 x Screws kit - For direct to surface or trunking mounting
LXLB-MSW-RC	Microwave Sensor - White	Direct to Lowbay mounting - Motion and Daylight sensor, IP20, 1-10V dimmable, max. 15m mounting height
LXLB-RC	Remote Control Handset	Programmable remote control handset for use with LXLB-MSW-RC Sensor

## LED Batten

PART NO.	WATTS	SIZE	LUMENS
LXBAT425LED	25W	4ft (s)	2500LM
LXBAT535LED	35W	5ft (s)	3500LM
LXBAT643LED	43W	6ft (s)	4300LM
LXBAT448LED	48W	4ft (t)	4800LM
LXBAT563LED	63W	5ft (t)	6300LM
LXBAT680LED	80W	6ft (t)	8000LM
Emergency			
LXBAT425LED/EM3	25W	4ft (s)	2500LM
LXBAT535LED/EM3	35W	5ft (s)	3500LM
LXBAT643LED/EM3	43W	6ft (s)	4300LM
LXBAT448LED/EM3	48W	4ft (t)	4800LM
LXBAT563LED/EM3	63W	5ft (t)	6300LM
LXBAT680LED/EM3	80W	6ft (t)	8000LM



- Highly efficient LED Batten, ideal energy saving replacement for T8 and T5 fluorescent
- Luminaire efficacy: Up to 100 Lumen/Watt
- Standard and high output versions to replace single and twin
- Steel base, white polycarbonate diffuser
- Fast push-fit, loop in-out terminal block
- Multiple rear and side cable entry points
- Tridonic LED driver and Emergency Pack
- IP Rating: IP20
- Colour temperature: 4000k
- Colour rendering index: >80
- Rated Life: 50,000 hours
- Operating temperature: -10°C to 40°C
- Non-dimmable







## LED NCF IP65

- LED Non-Corrosive luminaire, highly efficient, energy saving and maintenance free
- Luminaire efficacy up to 105 Lumen/Watt
- Designed to directly replace traditional Twin and Single body T8 & T5 fluorescent luminaires
- Incorporating the latest advanced LED Drivers and chip technology
- Instant start, product life not affected by frequent switching
- Impact resistant polycarbonate body and frosted polycarbonate diffuser, IP65
- A self test button function is fitted as standard. Push the red button to temporarily test the Emergency mode
- Anti-tamper grade 316 stainless steel clips and locking screws supplied as standard
- Quick release gear tray restraints and fixing clips for ease of installation
- Push-fit, Loop in-out terminal block
- Multiple conduit entry points for through cable wiring, IP65 cable gland kit supplied
- Effective beam spread: 120°, special diffuser optics
- Rated Life (L70): 50,000 Hours
- Operating temperature: -20°C to 45°C (Amb.)
- IP/IK Rating: IP65/IK08
- Non-dimmable

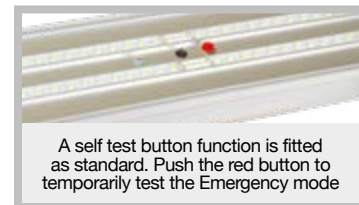
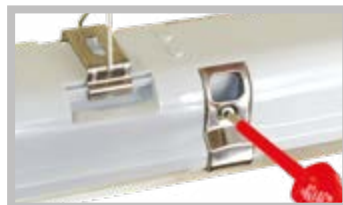
**5**  
YEAR  
WARRANTY



Single body LED array



Twin body LED array



A self test button function is fitted as standard. Push the red button to temporarily test the Emergency mode

PART NO.	DESCRIPTION	POWER (W)	MEASUREMENT (L x W x D)	FIXING (LF MM)	LUMEN OUTPUT	IP RATING	WEIGHT (KG)	POWER FACTOR	CRI	COLOUR TEMP	NO. OF CLIPS
<b>Standard</b>											
LXNCF112LEDCW	LED 2ft Single, Non-Corrosive	1 x 12W	632 x 85 x 81mm	400	1260	IP65	1.0	> 0.90	>80	5000K	6
LXNCF124LEDCW	LED 4ft Single, Non-Corrosive	1 x 24W	1232 x 85 x 81mm	900	2520	IP65	1.4	> 0.90	>80	5000K	10
LXNCF140LEDCW	LED 5ft Single, Non-Corrosive	1 x 40W	1532 x 85 x 81mm	950	4200	IP65	1.6	> 0.90	>80	5000K	12
LXNCF148LEDCW	LED 6ft Single, Non-Corrosive	1 x 48W	1832 x 85 x 81mm	1000	5040	IP65	1.9	> 0.90	>80	5000K	14
LXNCF212LEDCW	LED 2ft Twin, Non-Corrosive	2 x 12W	632 x 103 x 81mm	400	2520	IP65	1.1	> 0.90	>80	5000K	6
LXNCF224LEDCW	LED 4ft Twin, Non-Corrosive	2 x 24W	1232 x 103 x 81mm	900	5040	IP65	1.6	> 0.90	>80	5000K	10
LXNCF240LEDCW	LED 5ft Twin, Non-Corrosive	2 x 40W	1532 x 103 x 81mm	950	8400	IP65	2.0	> 0.90	>80	5000K	12
LXNCF248LEDCW	LED 6ft Twin, Non-Corrosive	2 x 48W	1832 x 103 x 81mm	1000	10080	IP65	2.5	> 0.90	>80	5000K	14
<b>Emergency</b>											
LXNCF124LEDCWEM3	LED 4ft Single, Non-Corrosive, EM3	1 x 24W	1232 x 85 x 81mm	900	2520	IP65	1.9	> 0.90	>80	5000K	10
LXNCF140LEDCWEM3	LED 5ft Single, Non-Corrosive, EM3	1 x 40W	1532 x 85 x 81mm	950	4200	IP65	2.1	> 0.90	>80	5000K	12
LXNCF148LEDCWEM3	LED 6ft Single, Non-Corrosive, EM3	1 x 48W	1832 x 85 x 81mm	1000	5040	IP65	2.4	> 0.90	>80	5000K	14
LXNCF212LEDCWEM3	LED 2ft Twin, Non-Corrosive, EM3	2 x 12W	632 x 103 x 81mm	400	2520	IP65	1.6	> 0.90	>80	5000K	6
LXNCF224LEDCWEM3	LED 4ft Twin, Non-Corrosive, EM3	2 x 24W	1232 x 103 x 81mm	900	5040	IP65	2.1	> 0.90	>80	5000K	10
LXNCF240LEDCWEM3	LED 5ft Twin, Non-Corrosive, EM3	2 x 40W	1532 x 103 x 81mm	950	8400	IP65	2.5	> 0.90	>80	5000K	12
LXNCF248LEDCWEM3	LED 6ft Twin, Non-Corrosive, EM3	2 x 48W	1832 x 103 x 81mm	1000	10080	IP65	2.9	> 0.90	>80	5000K	14

## LED Panel Range

- Luminaire efficacy up to 100 Lumens/Watt
- Suitable for 25mm and 15mm T-bar grid ceiling installations
- IP rating: IP20
- Ultra slim design 10.5mm thickness
- Supplied with 'plug and play' driver, non-dimmable
- Colour Rendering Index: >80
- Quick and easy installation, no maintenance
- Rated Life (L70): 50,000 Hours
- Frame: Aluminium white
- Beam spread: 120°
- Power Factor: >0.90
- Options available: Suspension Kit, Surface mount frame, Emergency Pack

PART NO	WATTS	DIMENSIONS (L x W x D)	LUMENS	COLOUR TEMP
LXPAN30LED66WW2	30W	595 x 595 x 10.5mm	3000	3000K
LXPAN30LED66NW2	30W	595 x 595 x 10.5mm	3000	4000K
LXPAN30LED66CW2	30W	595 x 595 x 10.5mm	3000	6000K
LXPAN60LED123NW2	60W	1195 x 295 x 10.5mm	5100	4000K
LXPAN60LED123CW2	60W	1195 x 295 x 10.5mm	5100	6000K
LXPAN60LED126NW2	60W	1195 x 595 x 10.5mm	5100	4000K
LXPAN60LED126CW2	60W	1195 x 595 x 10.5mm	5100	6000K



## 30W LED Panel 600, IP54

- Suitable for 25mm and 15mm T-bar installations
- Standard non-dimmable LED driver included (IP20)
- Energy savings up to 60% when replacing 4x18W T8 luminaires
- IP rating: IP54
- Colour temperature: 4000K
- Colour rendering index: >80
- Rated Life (L70): 50,000 Hours
- Power Factor: >0.90
- Options available: Suspension Kit, Surface mount frame, Emergency Pack



PART NO	DIMENSIONS (L x W x D)	LUMENS
LXPAN30LED66NW2/IP54	595 x 595 x 13.5mm	3000

## Surface Mount Box for LED Recessed Panel

- Supplied pre-assembled for very quick and easy installation
- Magnetic fixings provide clean screwless appearance
- Emergency LED indicator clip supplied

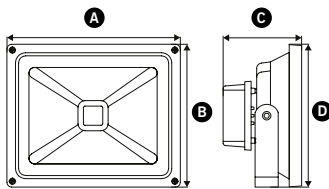


PART NO	DESCRIPTION
LXPAN66SMB	600 x 600 Kit
LXPAN123SMB	1200 x 300 Kit
LXPAN126SMB	1200 x 600 Kit



## LED Floodlights IP65

- Extensive range: 30W – 300W
- 2600 to 26,500 Lumen output, suitable for Commercial and Industrial external applications
- Die-cast aluminium housing
- Stainless Steel fixing screws
- Durable high quality paint minimises effect of corrosion
- Instant start, product life not affected by frequent switching
- Colour temperature: 5000K
- Beam spread: 120°, Clear Tempered glass
- Rated Life (L70): 50,000 Hours
- Operating temperature: -25°C to 45°C
- Power Factor: >0.90
- IP rating: IP65
- Installation: Adjustable mounting bracket
- Pre-wired Cable: 1.0m



PART NO	POWER (W)	MEASUREMENT (A x B x C x D)	INPUT VOLTAGE	LUMEN OUTPUT	POWER FACTOR	IP RATING	WEIGHT (KG)	COLOUR TEMPERATURE
LXFL30WBV2	30	226 x 185 x 117 x 200mm	100-240VAC 50/60Hz	2600	> 0.90	IP65	1.80	5000K
LXFL50WBV2	50	288 x 235 x 125 x 235mm	100-240VAC 50/60Hz	4500	> 0.90	IP65	2.50	5000K
LXFL100WBV2	100	350 x 270 x 145 x 270mm	100-240VAC 50/60Hz	9000	> 0.90	IP65	4.95	5000K
LXFL150WBV2	150	425 x 325 x 180 x 325mm	100-240VAC 50/60Hz	13500	> 0.90	IP65	8.15	5000K
LXFL180WBV2	180	425 x 325 x 180 x 325mm	100-240VAC 50/60Hz	15500	> 0.90	IP65	8.20	5000K
LXFL300WBV2	300	500 x 400 x 200 x 400mm	100-240VAC 50/60Hz	26500	> 0.90	IP65	13.85	5000K

## LED Wall Pack Slim 22W

- Black polycarbonate base and detachable front trim
- Opal polycarbonate impact resistant diffuser
- 1500 Lumen
- IP Rating: IP65
- IK Rating: IK08
- Colour temperature: 4000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -10°C to 40°C
- Surface fixing and cable gland kit included
- Dimensions: 305 x 255 x 101mm (H x W x D)
- Photocell: 10-20 Lux On / 30-60 Lux Off

PART NO.	DESCRIPTION
LXWPS	Wall Pack
LXWPS/PC	Wall Pack with Photocell
LXWPS/EM3	Wall Pack with Emergency
LXWPS/EM3/PC	Wall Pack with Photocell and Emergency





## LED Round Ceiling / Wall Light

- Slimline decorative bulkhead, ideal energy saving replacement for fluorescent 2D
- White polycarbonate base, bezel and opal diffuser
- 14W LED, 1100 Lumen
- IP Rating: IP65
- Colour temperature: 4000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -10°C to 40°C
- Surface fixing kit included
- Dimensions: diameter 330mm, height 110mm
- Tridonic Emergency Pack



PART NO.	MICROWAVE SENSOR	EMERGENCY
LXBHR14LEDNW	No	No
LXBHR14LEDNW/MWS	Yes	No
LXBHR14LEDNW/EM3	No	Yes
LXBHR14LEDNW/EM3/MWS	Yes	Yes

## LED Bulkhead

- Low profile utility style bulkhead, ideal energy saving replacement for fluorescent 2D
- White or black polycarbonate base, Opal diffuser
- 14W LED, 1200 Lumen
- IP Rating: IP65
- Colour temperature: 4000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -10°C to 40°C
- Front diffuser locking screws
- Rear and side housing conduit/cable entry points
- Surface fixing kit included
- Tridonic Emergency Pack

PART NO.	BASE SHAPE	BASE COLOUR	MICROWAVE SENSOR	EMERGENCY
LXBHR14LEDNW/WO	Round	White	No	No
LXBHR14LEDNW/WO/MWS	Round	White	Yes	No
LXBHR14LEDNW/WO/EM3	Round	White	No	Yes
LXBHR14LEDNW/WO/EM3/MWS	Round	White	Yes	Yes
LXBHR14LEDNW/BO	Round	Black	No	No
LXBHR14LEDNW/BO/MWS	Round	Black	Yes	No
LXBHR14LEDNW/BO/EM3	Round	Black	No	Yes
LXBHR14LEDNW/BO/EM3/MWS	Round	Black	Yes	Yes
LXBHS14LEDNW/WO	Square	White	No	No
LXBHS14LEDNW/WO/MWS	Square	White	Yes	No
LXBHS14LEDNW/WO/EM3	Square	White	No	Yes
LXBHS14LEDNW/WO/EM3/MWS	Square	White	Yes	Yes
LXBHS14LEDNW/BO	Square	Black	No	No
LXBHS14LEDNW/BO/MWS	Square	Black	Yes	No
LXBHS14LEDNW/BO/EM3	Square	Black	No	Yes
LXBHS14LEDNW/BO/EM3/MWS	Square	Black	Yes	Yes





## Emergency Bulkhead 3W LED

- 3 hour emergency maintained or non-maintained operation
- Polycarbonate base and impact resistant diffuser
- Hinged gear tray for quick installation
- Push-fit terminal connector
- 20mm conduit entry points: Top, side and rear
- Manufactured in accordance to: BS EN 60598-2-22
- 3W LED, 120 Lumen (AC)
- IP Rating: IP65
- Colour temperature: 6000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -5°C to 40°C
- Legend viewing distance: 18m
- Battery: Ni-Cd 3.6V 1200mAh
- Dimensions: 350 x 110 x 60mm



Includes Universal Legend Kit



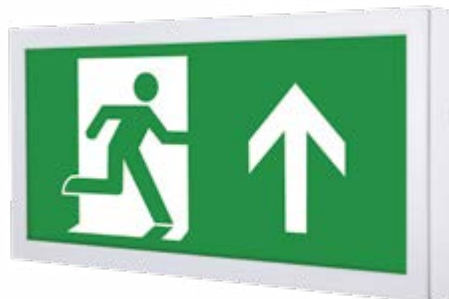
### Accessories

PART NO.	ACCESSORY	DESCRIPTION
LXEBH/RK	Recessing Kit	Semi-recessing kit including spring clip fixings
LXEBH/LK	Universal Legend Kit	Self adhesive ISO pictograms to configure Up, Down, Left or Right direction

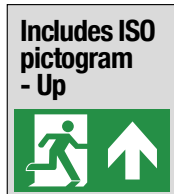
PART NO
LXEBH

## Emergency Exit Box Slim 4W LED

- 3 hour emergency maintained or non-maintained operation
- Slim polycarbonate housing and interchangeable PVC legend panels
- Additional LED on base for downward illumination
- 20mm conduit entry points: Rear
- Manufactured in accordance to: BS EN 60598-2-22
- IP Rating: IP20
- Colour temperature: 6000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -5°C to 40°C
- Legend maximum viewing distance: 30m
- Battery: Ni-Cd 3.6V 1200mAh
- Dimensions: 390 x 190 x 30mm



PART NO
LXEBS



### Accessories

PART NO.	ACCESSORY	DESCRIPTION
LXEBS/L/AU	Legend Arrow Up	PVC ISO pictogram - Up
LXEBS/L/AD	Legend Arrow Down	PVC ISO pictogram - Down
LXEBS/L/AR	Legend Arrow Right	PVC ISO pictogram - Right
LXEBS/L/AL	Legend Arrow Left	PVC ISO pictogram - Left

## Emergency Exit Box 4W LED

- 3 hour emergency maintained or non-maintained operation
- Robust steel housing and interchangeable polycarbonate legend panels
- Diffuser panel on base for additional downward illumination
- 20mm conduit entry points: Top and rear
- Manufactured in accordance to: BS EN 60598-2-22
- IP Rating: IP20
- Colour temperature: 6000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -5°C to 40°C
- Legend maximum viewing distance: 34m
- Battery: Ni-Cd 3.6V 1200mAh
- Dimensions: 390 x 190 x 60mm



PART NO
LXEEB



### Accessories

PART NO.	ACCESSORY	DESCRIPTION
LXEEB/L/AU	Legend Arrow Up	PVC ISO pictogram - Up
LXEEB/L/AD	Legend Arrow Down	PVC ISO pictogram - Down
LXEEB/L/AR	Legend Arrow Right	PVC ISO pictogram - Right
LXEEB/L/AL	Legend Arrow Left	PVC ISO pictogram - Left

# Emergency Hanging Signs 3W LED

- 3 hour emergency maintained or non-maintained operation
- Polycarbonate and aluminium housing with interchangeable PVC legends
- Double sided Acrylic hanging legend panel
- Push-fit terminal connector
- Test function button and LED indicator
- Manufactured in accordance to: BS EN 60598-2-22
- 3W LED
- IP Rating: IP20
- Colour temperature: 6000K
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -5°C to 40°C
- Legend maximum viewing distance: 24m
- Battery: Ni-Cd 3.6V 900mAh



PART NO.	DESCRIPTION
LXEMME	Emergency Hanging Sign Multi-Mount
LXEHS	Emergency Hanging Sign Surface Mounted
LXEHS/RS	Emergency Hanging Sign Recessed Suspended
LXEHS/R	Emergency Hanging Sign Recessed



PART NO  
LXEMME



PART NO  
LXEHS



PART NO  
LXEHS/RS



PART NO  
LXEHS/R

## Accessories

PART NO.	FOR USE WITH	ACCESSORY	DESCRIPTION
LXEMME/SMA	LXEMME	Side Mounting Arm	Wall Bracket For Side Mounting
LXEMME/L/AU	LXEMME	Legend Arrow Up	PVC ISO pictogram - Up (2pcs)
LXEMME/L/AD	LXEMME	Legend Arrow Down	PVC ISO pictogram - Down (2pcs)
LXEMME/L/ALR	LXEMME	Legend Arrow Left/Right	PVC ISO pictogram - Left/Right (2pcs)

PART NO.	FOR USE WITH	ACCESSORY	INC. VAT
LXEHS/L/AU	LXEHS, LXEHS/RS & LXEHS/R	Legend Arrow Up	PVC ISO pictogram - Up (2pcs)
LXEHS/L/AD	LXEHS, LXEHS/RS & LXEHS/R	Legend Arrow Down	PVC ISO pictogram - Down (2pcs)
LXEHS/L/ALR	LXEHS, LXEHS/RS & LXEHS/R	Legend Arrow Left/Right	PVC ISO pictogram - Left/Right (2pcs)





## Emergency Twin Spot 2x3W LED

- 3 hour Non-maintained emergency operation
- Lightweight, impact resistant polycarbonate construction
- Push-fit terminal connector
- 20mm conduit entry points: Side and rear
- Twin horizontal and vertically adjustable lamp heads
- Suitable for mounting in any orientation
- Individual LED indicators for Charge and Lamp status
- Manufactured in accordance to: BS EN 60598-2-22
- 6W LED (2x 3W), 500 Lumen
- IP Rating: IP65
- Colour temperature: 6000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -5°C to 40°C
- Battery: Ni-Cd 3.6V 3500mAh
- Dimensions: 280 x 300 x 70mm

PART NO  
LXETS

**3**  
YEAR  
WARRANTY



## Emergency Recessed Remote Downlight 3W LED

- Open area anti-panic optic design provides uniform illumination with a wide symmetrical beam distribution
- 3 hour Non-maintained emergency operation
- Compact aluminium housing construction
- Downlight head, Driver and Battery pre-wired for easy installation
- Dual LED glows green in standby mode and converts to high power white LED in the event of a mains failure
- 35mm diameter hole cut out size
- Manufactured in accordance to: BS EN 60598-2-22
- 3W LED, 120 Lumen
- IP Rating: IP20
- Colour temperature: 6000k
- Colour rendering index: >80
- Rated Life: 30,000 hours
- Operating temperature: -5°C to 40°C
- Battery: Ni-Cd 3.6V 1800mAh
- Dimensions: 42 x 22mm

PART NO  
LXERS

**3**  
YEAR  
WARRANTY



Includes White, Matt Silver and Black Bezels



## Emergency Recessed Remote Downlight/CL 3W LED

- Escape route and corridor optic design provides uniform illumination with an asymmetrical beam distribution
- Supplied with white bezel only
- Dimensions: 42 x 22mm



PART NO  
LXERS/CL

**3**  
YEAR  
WARRANTY



## Universal Links LED

### Driverless Linkable Floodlight

This 62W 7700 Lumens LED Light Module does not require conventional drivers, it utilises AC LED technology. The advantage is improved reliability, increased lifetime performance and reduces weight significantly. The units can be used in multiples of 1 to 9 with only one input connector. Links-LED is truly a versatile lighting system.

- AC Input Voltage: 220-300V AC 50Hz
- Power Consumption: 62W
- Lumen Output: 7700Lm
- Colour Temperature: 5600K
- Size: 205mm x 205mm (per single unit)
- Colour rendering index: >80
- Operating Temperatures: -25°C- +50°C
- Weight: 1.9KG
- IP66 rated



Image shows 3 units linked together



PART NO.	DESCRIPTION
Y62WS	Single 62W Links-LED

## Applications

Our new Links-LED system has been designed to reduce the number of various of low to high output floods which we supply to customers in the following applications:

- Maritime
- Container Terminals
- Warehouse Lighting
- Engineering & Fabrications Shops
- Ship to Shore RTE Cranes
- Mast Area Flood lighting

With the Links-LED system it is now possible to cater for a low bay to a stadium light with one single input connector. This powers 1 to 9 modules.



## EBMHS-IP, IP65 Miniature PIR Presence Detectors

The EBMHS-IP range of miniature high sensitivity PIR presence detectors are specifically tested and approved to IP65 rating in accordance to BS60598-1 2015 to 15 minutes.

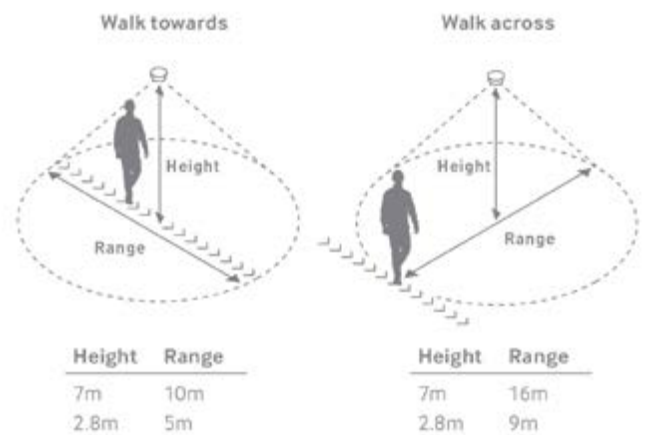
The slimline design is ideal for integration into IP rated luminaires used in external lighting applications such as car parks, amenity and street lighting. The EBMHS-IP is suitable to be used with a variety of Power supply devices for connection to luminaire control devices.

- IP65 in accordance to BS60598-1 2015 to 15 minutes
- Unobtrusive design
- Supplied pre-wired with an RJ11 plug for connection to the relevant power supply – 300mm flying lead
- Infrared programmable
- Mounting at heights up to 7m
- Colour RAL9002 other colour options available upon request
- Material body is flame retardant polymer

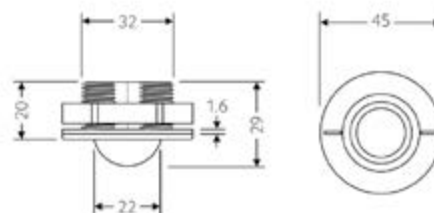
PART NO	DESCRIPTION
EBMHS-IP-PRM-SL-L03	PRM switching
EBMHS-IP-DD-SL-L03	DALI/DSI dimming
EBMHS-IP-AD-SL-L03	Analogue dimming



### Detection patterns



### Dimensions (mm)





# SMART LIGHTING CONTROLS

**FREE**  
TECH SUPPORT  
AND SITE SURVEYS  
AVAILABLE ON REQUEST  
CONTACT YOUR  
LOCAL YESSS BRANCH



## About Lite IP

Lite IP is a smart wireless control system. It is designed for installing into luminaires by knowledgeable lighting manufacturers.

The system consists of a Lite IP node which is fitted into each luminaire to be controlled.

## Why Lite IP?

- Quick install
- No DALI line needed
- Only live, neutral and earth needed for emergency lighting
- Daylight harvesting
- Emergency self test reporting
- All fittings can be programmed from one location
- Up to 100m line of site for programming
- Reports on real time energy savings based on actual usage
- Reports luminaire and emergency faults
- Easy to add or replace fittings
- No maximum size of project

## Programming Lite IP

You will need:

- Samsung Tablet 10.1 (from anywhere)
- Lite IP Mate
- Lite IP software loaded on to the tablet

Programming the system is easy and can be carried out by Lite IP in conjunction with an engineer on site.

Collator - These are available for larger and multi-site operation, so the FM can have the performance of all his lighting estate back to one position.

Energy feedback - This is a great management tool so you can know the exact energy consumption over any time period.

## THE COLLATOR



## LITE IP MATE



## WIFI NODE





## Light Efficient Design

### Reliable LED retrofits No Risk 60 day trial

We are so sure that we will outperform any LED retrofit that we offer a 60 day money back trial. Just return the samples within 60 days with the original packing for a full credit.

- Replaces up to 1000W HID
- CE Certified
- -40°C to +50°C ambient temperature range with advanced active cooling
- UMSUG certification on selected models
- 50,000 hour rated life
- Local UK warehouse



Featuring



#### Enclosed Fitting Safe

up to 50°C ambient

#### Pretested Lamps

Clear cover protects LEDs



#### Dual Stage MOV Protection

safe from common surges

#### Soft Start

longer life of electronic components



#### Dynamic Temperature Control

70,000 hour fans

#### Potted Driver

protects electronics against moisture and vibration



CE Approved

#### Best Quality LED Chips

LM-80

Certified with 80+ CRI

#### Conformally Coated Electronics

able to withstand humid environments

keeps particles and bugs away from critical components

#### Particle Protection

#### Universal Mount

retrofits can be mounted base up, down or horizontal



burnt in 3 times before shipping to ensure quality

#### Pretested Drivers



## Light Efficient Design

### LED Retrofit for Highbay

**100W**  
LED-8036  
Replaces up to 250W E40 base



**140W**  
LED-8030  
Replaces up to 400W E40 base

Aims light upward, sideways and down



**140W**  
LED-8032  
Replaces up to 400W E40 base

Maximum downward light for high ceilings and metal reflector highbays



PART NO	DESCRIPTION	LUMENS	POWER USED	LPW	REPLACES	BASE	CCT	CE
LED-8036-CW-E40-A	LED-8036M 100W Lowbay / Highbay (replaces 8026M)	10656	100W	110	250W	E40	4000K	✓
LED-8036-DL-E40-A		10798	100W	112	250W	E40	5700K	✓
LED-8030-CW-E40-A	LED-8030M 140W Highbay with Uplight *Design Patent D723,194	15763	150W	109	400W	E40	4000K	✓
LED-8030-DL-E40-A		15911	150W	110	400W	E40	5700K	✓
LED-8032-CW-E40-A	LED-8032M 150W Highbay *Design Patent 29/519,210	16407	150W	113	400W	E40	4000K	✓
LED-8032-DL-E40-A		16605	150W	105	400W	E40	5700K	✓



**30W**  
LED-8087  
Replaces up to 100W E27 or E40 base



**50W**  
LED-8088  
Replaces up to 175W E27 or E40 base



**80W**  
LED-8089  
Replaces up to 250W E40 base



**120W**  
LED-8090  
Replaces up to 400W E40 base

High Light output thanks to unique one sided directional design

PART NO	DESCRIPTION	LUMENS	POWER USED	LPW	REPLACES	BASE	CCT	CE
LED-8087-CW-E27-A	LED-8087 30W Floodlight Type V Optics	4171	30W	127	100W	E27	4000K	✓
LED-8087-DL-E27-A		4225	30W	128	100W	E27	5700K	✓
LED-8087-CW-E40-A	LED-8087M 30W Floodlight Type V Optics	4171	30W	127	100W	E40	4000K	✓
LED-8087-DL-E40-A		4225	30W	128	100W	E40	5700K	✓
LED-8088-CW-E27	LED-8088E 50W Floodlight Type V Optics	5946	50W	116	175W	E27	4000K	✓
LED-8088-DL-E27		5870	50W	116	175W	E27	5700K	✓
LED-8088-CW-E40	LED-8088M 50W Floodlight Type V Optics	5946	50W	116	175W	E40	4000K	✓
LED-8088-DL-E40		5870	50W	116	175W	E40	5700K	✓
LED-8089-CW-E40	LED-8089M 80W Low Bay and Floodlight Type V Optics	6910	80W	86	250W	E40	4000K	✓
LED-8089-DL-E40		7403	80W	92	250W	E40	5000K	✓
LED-8090-CW-E40-A	LED-8090M 120W Low Bay and Floodlight Type V Optics	11605	120W	101	400W	E40	4000K	✓
LED-8090-DL-E40-A	Utility Patent Pending 14/710,301	11760	120W	102	400W	E40	5000K	✓





**Technically  
Superb**

**35W**  
LED-8033  
Replaces up to  
35W E27 base





**45W**  
LED-8024  
Replaces up to  
175W E27 base



**45W**  
LED-8024  
Replaces up to  
175W E40 base



PART NO	DESCRIPTION	LUMENS	POWER USED	LPW	REPLACES	BASE	CCT	CE
LED-8033-NW-E27 LED-8033-NW-E27-A	LED-8033E 35W Post Top E27 Base	3890	35W	100	35W	E27	3000K	✓
LED-8033-CW-E27 LED-8033-CW-E27-A		4760	35W	123	35W	E27	4200K	✓
LED-8033-DL-E27 LED-8033-DL-E27-A		4781	35W	125	35W	E27	5700K	✓
LED-8024-NW-E27 LED-8024-NW-E27-A		5345	45W	118	175W	E27	3000K	✓
LED-8024-CW-E27 LED-8024-CW-E27-A		5576	45W	125	175W	E27	4200K	✓
LED-8024-DL-E27 LED-8024-DL-E27-A		6014	45W	130	175W	E27	5700K	✓
LED-8024-NW-E40 LED-8024-NW-E40-A		5294	45W	18	175W	E40	3000K	✓
LED-8024-CW-E40 LED-8024-CW-E40-A	LED-8024M 45W Post Top E40 Base	5678	45W	124	175W	E40	4200K	✓
LED-8024-DL-E40 LED-8024-DL-E40-A		6076	45W	132	175W	E40	5700K	✓

## Bollard and Post Top

**14W**  
LED-8038-A  
Replaces up to  
50W E27 base



**18W**  
LED-8039-A  
Replaces up to  
70W E27 base



**24W**  
LED-8029-A  
Replaces up to  
100W E27 base



**24W**  
LED-8029-A  
Replaces up to  
100W E40 base



PART NO	DESCRIPTION	LUMENS	LPW	REPLACES	BASE	CCT	CE	
LED-8038-NW-E27-A	LED-8038E-A 14W Bollard / Post Top	1840	131	50W	E27	3000K	✓	
LED-8038-CW-E27-A		2064	147	50W	E27	4000K	✓	
LED-8038-DL-E27-A		2217	158	50W	E27	5700K	✓	
LED-8039-NW-E27-A	LED-8039E-A 18W Bollard / Post Top	2757	153	70W	E27	3000K	✓	
LED-8039-CW-E27-A		2983	166	70W	E27	4200K	✓	
LED-8039-DL-E27-A		2465	124	70W	E27	5700K	✓	
LED-8029-NW-E27-A	LED-8029E 24W Bollard / Post Top	3023	126	100W	E27	3000K	✓	
LED-8029-CW-E27-A			3422	136	100W	E27	4200K	✓
LED-8029-DL-E27-A			3425	143	100W	E27	5700K	✓
LED-8029-NW-E40-A	LED-8029M 24W Bollard / Post Top	3430	142	100W	E40	3000K	✓	
LED-8029-CW-E40-A		3374	141	100W	E40	4200K	✓	
LED-8029-DL-E40-A		3374	141	100W	E40	5700K	✓	



## Light Efficient Design

### HD Retrofits High Bay



PART NO	DESCRIPTION	LUMENS	POWER USED	LPW	REPLACES	BASE	CCT	CE
LED-8136-CW-E40	LED-8136 High Bay	11825	90W	130	250W	E40	4000K	✓
LED-8136-DL-E40	Open Fittings Only	11825	90W	130	250W	E40	5000K	✓
LED-8132-CW-E40	LED-8132 High Bay	17055	135W	125	400W	E40	4000K	✓
LED-8132-DL-E40	Open Fittings Only	17095	135W	125	400W	E40	5000K	✓
LED-8130-CW-E40	LED-8130 High Bay	19285	150W	128	400W	E40	4000K	✓
LED-8130-DL-E40	Open Fittings Only	19375	150W	128	400W	E40	5000K	✓

### SOX Retrofit

**20W**  
LED-8100 - Replaces up to 35W

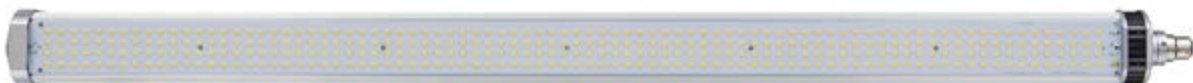


**35W**  
LED-8101 - Replaces up to 55W



**100W**  
LED-8103 -  
Replaces up to 180W

**60W**  
LED-8102 -  
Replaces up to 90W



PART NO	DESCRIPTION	LUMENS	POWER USED	LPW	REPLACES	BASE	CCT	CE
LED-8100-22K	LED-8100 SOX Street Lamp	10656	20W	106	35W	Bayonet B22D	2200K	✓
LED-8100-40K		10798	20W	107	35W	Bayonet B22D	4000K	✓
LED-8101-22K	LED-8101 SOX Street Lamp	15763	35W	112	55W	Bayonet B22D	2200K	✓
LED-8101-40K		15911	35W	113	55W	Bayonet B22D	4000K	✓
LED-8102-22K	LED-8102 SOX Street Lamp	16407	60W	110	90W	Bayonet B22D	2200K	✓
LED-8102-40K		16605	60W	110	90W	Bayonet B22D	4000K	✓
LED-8104-22K	LED-8104 SOX Street Lamp	16407	100W	110	180W	Bayonet B22D	2200K	✓
LED-8104-40K		16605	100W	110	180W	Bayonet B22D	4000K	✓



# HARSH & HAZARDOUS AREA



- 275 ATEX Torches
- 276 Harsh Lighting
- 279 Hazardous Lighting
- 280 Junction Boxes & Glands



# HARSH & HAZARDOUS AREA • ATEX TORCHES

# 7 YEAR WARRANTY

with registration. More information at [ledlenser.com](http://ledlenser.com)



## ATEX Rechargeable Torch

- Lumens: 220/50
- Beam Distance: 140/65m
- Run Time: 10/45hrs
- Weight: 228g
- IP66 rated
- Battery: L-ion
- Atex Zone: 1/21
- Supplied with batteries, belt-clip, rotating clip, charging base, power supply
- Spot / flood focusing
- Charge indicator



PART NO
EX7R

## ATEX Torch

- Lumens: 200/60
- Beam Distance: 120/70m
- Run Time: 16/45hrs
- Weight: 232g
- IP66 rated
- Battery: 3 x AA
- Atex Zone: 0/20
- Supplied with batteries, belt-clip
- Spot / flood focusing



PART NO
EX7

## ATEX Pocket Torch

- Lumens: 50
- Beam Distance: 35m
- Run Time: 7hrs
- Weight: 65g
- IP66 rated
- Battery: 2 x AAA
- Atex Zone: 0/20
- Supplied with batteries
- Slim styling
- Pocket clip



PART NO
EX4

## ATEX Headlamp

- Lumens: 180/50
- Beam Distance: 120/65m
- Run Time: 15/40hrs
- Weight: 345g
- IP66 rated
- Battery: 3 x AA
- Atex Zone: 0/20
- Supplied with batteries
- Rear light



PART NO
EXH8

## ATEX Rechargeable Headlamp

- Lumens: 220/45
- Beam Distance: 130/60m
- Run Time: 10/45hrs
- Weight: 342g
- IP66 rated
- Battery: L-ion
- Atex Zone: 1/21
- Supplied with batteries, charging base, power supply
- Spot / flood focusing
- Charge indicator
- Rear light



PART NO
EXH8R



# VANDAL RESISTANT/ STAINLESS STEEL/ANTI LIGATURE

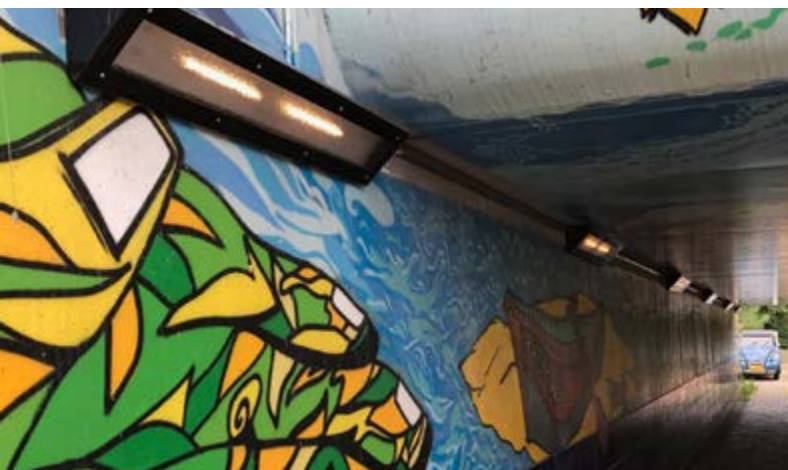
We are committed to providing our customers superior quality fittings that are robust, durable and cost efficient. Over 25 years our lighting partner has established itself as a market leader in Anti ligature, Secure and Vandal Resistant LED luminaires. A new range for a new LED generation

A slimmer tougher generation of VandaLED luminaires

- Custodial
- Secure Healthcare
- Rail & Transport
- Public Space
- Industrial
- Food Preparation & Hygiene
- Education
- Residential Housing
- Car Park



 Economical	 LED	 IP RATED	 IK RATED	 Vandal Resistant	 Anti Ligature	 CUSTOM RAL	 Industrial	 Custodial	 Commercial	 Healthcare	 Education
 Optional Motion Detection	 Emergency Lighting	 Dimmable	 Fluorescent Options	 RGB LED	 Solar Powered	 VANDA COAT Option	 Public Space	 Rail	 Interior	 Exterior	 Social Housing







# FOOD MANUFACTURE / MARINE / COASTAL

## Food Safe Highbay

- IP66 rated for most environmental conditions
- Suitable for high humidity, wash down capable



## Marine Grade Floodlights

- IP67 rated
- 130Lm/Watt
- Choice of beam angles
- Corrosion proof coating
- Resistant to salt spray and chlorine atmospheres

**5**  
YEAR  
WARRANTY



## Stainless Steel Linear

- Chemical and salt resistant
- IK08 Rated
- Clear or opal PMMA cover, or toughened glass
- Tridonic driver
- 316 stainless steel
- IP65 Rated



## LED Tubular Low Temp

- -40°C, IP68/69k
- Coextruded polycarbonate methacrylate diffuser
- 600mm-1500mm
- 16-85W



## LED Tubular High IP

- IP68/69k fitting for food industry process
- Coextruded polycarbonate methacrylate diffuser
- 600mm-1500mm
- 16-85W



## LED Tubular High Temp

- IP68/69k Emergency Fitting for food industry process
- Coextruded polycarbonate methacrylate diffuser
- 600mm-1500mm
- 16-85W



## T8 Tubular High Temp

- Up to 200°C
- IP68/69k
- Borosilicate glass diffuser
- 600mm-1500mm
- 18W



Akzo Nobel Chemical Resistant Coating • High IP Options • High Temp Options • 5 Year Warranty • Stainless Steel  
 Various Lengths on Input Flexes • Philips/Osram/Nichia Chipsets • Meanwell/Inventronic Drivers • Dali Dim/0-10V  
 Zigbee Wireless Control Options • Assembly in the UK • PMMA Chemical Resistant Diffusers



## High Temp High Bays & Floodlights

- Enhanced thermal management heavy duty luminaires, ideal for application in high temperature industrial environments
- Ingress & impact resistant
- Progressive, modular light engine design featuring European long-life SMDs
- CE, RoHS, CB, ELT, & DLC international product marks
- The most competitive, high-end solution for projects worldwide
- Philips Lumileds
- IP66 / IK10
- L70 ≥ 82,000hrs lumen maintenance
- Power Factor: ≥0.95
- CCT: 3000K, 4000K, 5000K, 6000K
- CRI: ≥70Ra, ≥80Ra
- Ambient Usage Tolerance: -30°C to 80°C
- Ambient Storage Tolerance: -40°C to 80°C



PART NO.	WATTS	LUMENS	WEIGHT	DIMENSIONS (L x W x H)
YIHTHB100	100W	14,000	9.35kg	330 x 365 x 224mm
YIHTHB150	150W	21,000	10.7kg	435 x 365 x 224mm
YIHTHB200	200W	28,000	12.05kg	540 x 365 x 224mm
YIHTHB300	300W	42,000	20.85kg	750 x 365 x 224mm
YIHTHB450	450W	63,000	29.95kg	1065 x 365 x 224mm



## Low Temperature Detectors

Following rigorous testing in climatic chambers and on-site, our Minus30 range of lighting controls is specifically designed for the cold storage and refrigeration sector, performing at aggressive -30°C temperatures.



PART NO  
EBMPIR-MB-LT30



PART NO  
EBDHS-MB-LT30



PART NO  
EBDSPIR-LT30



PART NO  
EBDHS-LT30



# HARSH & HAZARDOUS AREA • HAZARDOUS LIGHTING



## Zone 1 - Protecta III Linear LED Fittings, 2ft, 4ft and emergency

- Highly energy efficient
- Full length easy access diffuser clamp
- Screwless mains terminals
- 120,000 maintenance free hours at 25°C (L70)
- DTS-01 deluge tested
- Retro-fit geartray available

PART NO	DESCRIPTION	OUTPUT	WATTS
PRGE/02L/LE	IP66/67, 2ft LED Linear, 6000K	2178lm	30W
PRGE/02L/LE/EM	IP66/67, 2ft LED Emergency, 6000K	2178lm	32W
PRGE/05L/LE	IP66/67, 4ft LED Linear, 6000K	4607lm	60W
PRGE/05L/LE/EM	IP66/67, 4ft LED Emergency, 6000K	4607lm	64W



**IN STOCK FOR NEXT DAY DELIVERY NATIONWIDE**

## Zone 2 - Sterling III Linear LED Fittings, 2ft, 4ft, 5ft and emergency

- 155,000 maintenance free hours at 45°C (L70)
- Lightweight and slimline construction
- 4000K Colour temperature
- Highly energy efficient
- IP65 rated

PART NO	DESCRIPTION	OUTPUT	WATTS
ST3N/03L/LE	2ft LED Linear	3592lm	24W
ST3N/03L/LE/EM	2ft LED Emergency	3592lm	26W
ST3N/06L/LE	4ft LED Linear	6241lm	44W
ST3N/06L/LE/EM	4ft LED Emergency	6241lm	48W
ST3N/09L/LE	4ft LED Linear	8798lm	64W
ST3N/09L/LE/EM	4ft LED Emergency	8798lm	68W
ST3N/09L/LE/5FT	5ft LED Linear	8798lm	64W
ST3N/09L/LE/EM/5FT	5ft LED Emergency	8798lm	68W



## Zone 1 - NexLED Emergency LED Bulkhead

- 168 Lumens
- IP66/67 rated
- Highly energy efficient
- 4100K Colour temperature
- Highly visible instant light
- Easy to install and maintain
- Ultra long life, no re-lamping required
- Over 60,000 hours\* continuous operation
- 100% output in emergency mode (up to 3 hours)
- Very low power consumption



### Exit sign kit

(supplied with Up, Down, Left and Right labels)



PART NO. SNE11-008

PART NO
NELE/201/LE/EM

\*60,000 hours expected at 40°C ambient (L70/B10)

## Zone 2 - Arran Floodlights

- IP66 rated
- Highly energy efficient
- Instant on crisp white light output
- 130,000 maintenance free hours at 25°C
- Lower power consumption than HID lamps
- Low temperature applications to -50°C



PART NO	DESCRIPTION	OUTPUT	WATTS
ARRN/10L/LE	LED Floodlight	10489lm	66W
ARRN/15L/LE	LED Floodlight	16880lm	122W



**FULL RANGE AVAILABLE OF CABLE GLANDS, JOINT BOXES AND CONTROL STATIONS FOR HAZARDOUS APPLICATIONS**



# HARSH & HAZARDOUS AREA • JUNCTION BOXES & GLANDS



## Fire Resistant Cable Junction Boxes PH120, E30/E60/E90

FK cable junction boxes are suitable for buildings with public traffic, to guarantee the emergency power supply in the event of a fire. The range comprises of fire boxes made of insulating material as well as of powder-coated sheet steel.



## Insulating Material / Thermoplastic

- Ambient temperature (Min/Max Temp) FK 04, FK 06, FK 16: -25 upto +45°C
- Ambient temperature (Avg value over 24hrs) FK 04, FK 06, FK 16: +35°C
- Protection against electric shock: insulated
- Degree of protection: IP66 with AKMF cable glands
- Resistance to impact: IK 09 (10 Joule)
- Connecting terminal made from ceramic with resistance high temperatures



PART NO	CERAMIC CONNECTING TERMINAL	ENTRIES	INCLUDED CABLE ENTRY / SEALING RANGE	OUTER DIMENSIONS (W x H x D)
FK0402	1.5-2.5mm <sup>2</sup> , 5-pole, each pole will take 4 x 1.5mm <sup>2</sup> sol and 2 x 2.5mm <sup>2</sup> sol	7x M20/25	3 EDKF 25, Ø 9-17 mm, IP65	104 x 104 x 70mm
FK0404	1.5-4mm <sup>2</sup> , 5-pole, each pole will take 8 x 1.5 mm <sup>2</sup> sol, 4 x 2.5mm <sup>2</sup> sol, 2 x 4mm <sup>2</sup> sol	7x M20/25	3 EDKF 25, Ø 9-17 mm, IP65	104 x 104 x 70mm
FK0604	1.5-6mm <sup>2</sup> , 5-pole, each pole will take 8 x 1.5 mm <sup>2</sup> sol, 4 x 2.5mm <sup>2</sup> sol, 2 x 4mm <sup>2</sup> sol, 2 x 6mm <sup>2</sup> sol	7x M20/25/32	3 EDKF 32, Ø 8-23 mm, IP65	130 x 130 x 77mm
FK0606	1.5-6mm <sup>2</sup> , 5-pole, each pole will take 12 x 1.5mm <sup>2</sup> sol, 8 x 2.5mm <sup>2</sup> sol, 6 x 4mm <sup>2</sup> sol, 4 x 6mm <sup>2</sup> sol	7x M20/25/32	3 EDKF 32, Ø 8-23 mm, IP65	130 x 130 x 77mm
FK1606	1.5-6mm <sup>2</sup> , 5 terminals, each pole will take 12 x 1.5mm <sup>2</sup> sol, 8 x 2.5mm <sup>2</sup> sol, 6 x 4mm <sup>2</sup> sol, 4 x 6mm <sup>2</sup> sol	10x M25/32/40	3 EDKF 32, Ø 8-23 mm, IP65	210 x 155 x 92mm
FK1608	1.5-2.5mm <sup>2</sup> , 10-pole, each pole will take 4 x 1.5mm <sup>2</sup> sol and 2 x 2.5mm <sup>2</sup> sol	10x M25/32/40	4 EDKF 25, Ø 9-17 mm, IP65	210 x 155 x 92mm
FK1610	1.5-10mm <sup>2</sup> , 5-pole, each pole will take 8 x 1.5mm <sup>2</sup> sol, 4 x 2.5mm <sup>2</sup> sol, 6 x 4mm <sup>2</sup> sol, 2 x 6mm <sup>2</sup> sol, 2 x 10mm <sup>2</sup> sol	10x M25/32/40	3 EDKF 32, Ø 11-30 mm, IP65	210 x 155 x 92mm
FK1616	1.5-16 mm <sup>2</sup> , 5-pole, each pole will take 12 x 1.5 mm <sup>2</sup> sol, 8 x 2.5 mm <sup>2</sup> sol, 6 x 4 mm <sup>2</sup> sol, 4 x 6 mm <sup>2</sup> sol, 2 x 10 mm <sup>2</sup> sol, 2 x 16 mm <sup>2</sup> r	10xM 25/32/40	3 EDKF 40, Ø 8-23 mm, IP65	210 x 155 x 92mm





## Sheet Steel, Powder-Coated

- Ambient temperature (Min/Max Temp) FK 5000, FK 6505, FK 9xx5: -25 upto +45°C  
FK 9259: -5 upto +40°C
- Ambient temperature (Avg value over 24hrs) FK 5000, FK 6505, FK 9xx5, FK 9259: +35°C
- Protection against electric shock: earthed
- IP66 rated
- Resistance to impact: IK 10 (20 Joule)
- Connecting terminal made from ceramic with resistance to high temperatures



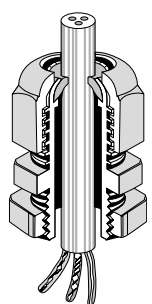
PART NO	CERAMIC CONNECTING TERMINAL	ENTRIES	INCLUDED CABLE ENTRY / SEALING RANGE	OUTER DIMENSIONS (W x H x D)
FK9025	0.5-4mm <sup>2</sup> , 5-pole, each pole will take 4 x Ø 0.8mm / 0.5mm <sup>2</sup> sol, 4 x 1.5mm <sup>2</sup> sol, 2 x 2.5mm <sup>2</sup> sol, 2 x 4mm <sup>2</sup> sol	7x M20/25	3 EDKF 25, Ø 9-17 mm, IP65	104 x 104 x 70mm
FK9105	1.5-10mm <sup>2</sup> , 5-pole, each pole will take 4 x 1.5mm <sup>2</sup> sol, 4 x 2.5mm <sup>2</sup> sol, 4 x 4mm <sup>2</sup> sol, 2 x 6mm <sup>2</sup> sol, 2 x 10mm <sup>2</sup> sol	7x M20/25	3 EDKF 25, Ø 9-17 mm, IP65	104 x 104 x 70mm
FK9255	1.5-16mm <sup>2</sup> , 5-pole, each pole will take 4 x 1.5mm <sup>2</sup> sol, 4 x 2.5mm <sup>2</sup> sol, 4 x 4mm <sup>2</sup> sol, 4 x 6mm <sup>2</sup> sol, 2 x 10mm <sup>2</sup> sol, 2 x 16mm <sup>2</sup> r	7x M20/25/32	3 EDKF 32, Ø 8-23 mm, IP65	130 x 130 x 77mm
FK6505	16-50mm <sup>2</sup> , 5-pole, each pole will take 6 x 16mm <sup>2</sup> r, 4 x 25mm <sup>2</sup> r, 4 x 35mm <sup>2</sup> r, 2 x 50mm <sup>2</sup> r	7x M20/25/32	3 EDKF 32, Ø 8-23 mm, IP65	130 x 130 x 77mm
<b>Cable junction box with fused outgoing unit, D 01 neozed fuse base</b>				
FK9259	1.5-10mm <sup>2</sup> , 5-pole terminal with 2 connecting terminals, 2 junction terminals and 2 PE terminals, each 1.5-10mm <sup>2</sup> sol	10x M25/32/40	3 EDKF 32, Ø 8-23 mm, IP65	210 x 155 x 92mm
<b>Communication junction box E30 for the installation of connecting device for telecommunications</b>				
FK5000	1.5-2.5mm <sup>2</sup> , without terminals	10x M25/32/40	4 EDKF 25, Ø 9-17 mm, IP65	210 x 155 x 92mm

## Cable Glands for Fire Resistant Cable Junction Boxes

### AKMF Cable Glands for Knockouts M20 - M40

- Approved for intrinsic fire resistance
- IP66 rated
- With strain relief and locknut
- For indoor - normal environment and (or) protected outdoor installation
- Ambient temperature - 25°C to + 55°C
- Glow wire test IEC 60695-2-11: 960°C

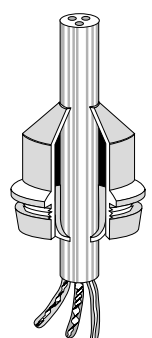
PART NO	FOR KNOCKOUTS	SEALING RANGE	ISO THREAD	BORE-HOLE	WALL THICKNESS	TIGHTENING TORQUE
AKMF20	M 20	Ø 6.5-13.5 mm	M 20 x 1.5	Ø 20.3	up to 3 mm	4.0 Nm
AKMF25	M 25	Ø 11-17 mm	M 25 x 1.5	Ø 25.3	up to 3 mm	7.5 Nm
AKMF32	M 32	Ø 15-21 mm	M 32 x 1.5	Ø 32.3	up to 3 mm	10.0 Nm
AKMF40	M 40	Ø 19-28 mm	M 40 x 1.5	Ø 40.3	up to 3 mm	10.0 Nm



### EDKF Grommets for Knockouts M20 - M40

- Approved for intrinsic fire resistance
- For indoor - normal environment and (or) protected outdoor installation
- IP66 rated
- Ambient temperature - 25°C to + 35°C
- Glow wire test IEC 60695-2-11: 750°C

PART NO	FOR KNOCKOUTS	SEALING RANGE	BORE-HOLE	WALL THICKNESS
EDKF20	M 20	Ø 6.5-13 mm	Ø 20.5	1.5 up to 3 mm
EDKF25	M 25	Ø 9-17 mm	Ø 25.5	1.5 up to 3 mm
EDKF32	M 32	Ø 8-23 mm	Ø 32.5	1.5 up to 3 mm
EDKF40	M 40	Ø 11-30 mm	Ø 40.5	1.5 up to 3 mm





# INDUSTRIAL LUBRICANTS, ADHESIVES & CLEANING

- 283 Maintenance Absorbents & Spill Kits
- 284 Oil Only Absorbents & Spill Kits
- 285 Chemical Absorbents & Spill Kits
- 286 Containment
- 287 Drain Protection & Granules
- 288 Plant Nappy & Technical
- 289 Wet Wipes
- 291 Non-woven Wipes
- 292 Adhesives
- 294 Paint





## Maintenance Absorbents & Spill Kits

### Maintenance Pads

- Bonded with cover stock for excellent wet strength and durability
- Highly absorbent with excellent fluid retention properties
- Manufactured from high grade polypropylene



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
M0415040	50cm x 40cm	100	80 Litres

### Maintenance Roll

- Bonded with cover stock for excellent wet strength and durability
- Highly absorbent with excellent fluid retention properties
- Manufactured from high grade polypropylene



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
M0405040	50cm x 40cm	1	80 Litres

### Maintenance Sock

- Spunbond or knitted outer skin for extra durability and improved uptake of fluid
- Between 5 and 12.5L of absorbency per sock.
- Will absorb both Oil and Water based liquids



PART NO	TYPE	DIMENSIONS	QTY IN PACK	LITRES PER PACK
M0430712	SP	7.5cm x 1.2m	20	90 Litres

### Maintenance Pillows

- Ideal for absorbing spills in difficult to access places
- Can be used to catch spills under machinery or where drips and leaks are a problem
- Non-woven outer and high grade polypropylene ensures excellent absorbency and strength



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
M2053823	38cm x 23cm	16	80 Litres

### Vinyl Spill Response Kit

- 15L Maintenance clip top plastic bag with handle
- 10 x Premier pads 50cm x 40cm, 1 x Premier 1.2m sock, 1 x waste bag and tie



PART NO	LITRES PER PACK
M1290015	15 Litres

### Vinyl Spill Response Kit

- 50L Maintenance Spill Kit in Vinyl Holdall (reusable) with shoulder strap
- 30 x Premier 50cm x 40cm pads, 3 x Premier 1.2m socks, 3 x 38cm x 23cm absorbent pillows, 5 x waste bags & ties



PART NO	LITRES PER PACK
M1280050	50 Litres

### 4 Wheeled Drop Front Spill Response Kit

- 1000L Maintenance spill response kit, comes supplied in a strong, waterproof, four wheeled plastic bin
- 300 x Premier 50cm x 40cm pads, 6 x Premier 3m Socks, 2 x 50m Premier rolls, 16 x 38cm x 23cm pillows, 6 x 3m Booms, 1 x floor sign, 1 x hazard tape, 60 x waste bags & ties.



PART NO	LITRES PER PACK
M1241000	1000 Litres

### 2 Wheeled Drop Front Spill Response Kit

- 1000L Maintenance spill response kit, comes supplied in a strong, waterproof, four wheeled plastic bin
- 300 x Premier 50cm x 40cm pads, 6 x Premier 3m Socks, 2 x 50m Premier rolls, 16 x 38cm x 23cm pillows, 6 x 3m Booms, 1 x floor sign, 1 x hazard tape, 60 x waste bags & ties.



PART NO	LITRES PER PACK
M1220240	240 Litres





## Oil Only Absorbents & Spill Kits

### Oil Only Pads

- Sonically bonded with cover stock to improve strength and reduce linting
- Can be used on land or water to selectively absorb Oil-based liquids
- Highly absorbent with excellent fluid retention properties
- Perforated for economy of use



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
H0415040	50cm x 40cm	100	80 Litres

### Oil Only Roll

- Cover stock gives excellent wear characteristics
- Bonded and perforated for greater utility and strength
- Highly absorbent with excellent fluid retention properties
- Designed to selectively absorb Oil based fluids from land and water



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
H0405040	50cm x 40cm	1	80 Litres

### Oil Only Sock

- Spunbond or knitted outer fabric ensures excellent fluid uptake
- For use on all Oil based liquids
- Hydrophobic technology - selectively absorbs oils not water
- Ideal for use outside where standing water may be present



PART NO	TYPE	DIMENSIONS	QTY IN PACK	LITRES PER PACK
H0430712	SP	7.5cm x 1.2m	20	90 Litres

### Oil Only Pillows

- Ideal for absorbing spills in difficult to access places
- Can be used to catch spills under machinery or where drips and leaks are a problem
- Non-woven outer and high grade polypropylene ensures excellent absorbency and strength



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
H2053823	38cm x 23cm	16	80 Litres

### Oil Vinyl Spill Response Kit

- 15L Oil Only clip top plastic bag with handle
- 10 x Premier pads 50cm x 40cm, 1 x Premier 1.2m sock, 1 x waste bag & tie



PART NO	LITRES PER PACK
H1290015	15 Litres

### Oil Vinyl Spill Response Kit

- 50L Oil Only Spill Kit in Vinyl Holdall (reusable) with shoulder strap
- 30 x Premier 50cm x 40cm pads, 3 x Premier 1.2m socks, 3 x 38cm x 23cm absorbent pillows, 5 x waste bags & ties



PART NO	LITRES PER PACK
H1280050	50 Litres

### Oil 4 Wheeled Drop Front Spill Response Kit

- 1000L Oil Only spill response kit, comes supplied in a strong, waterproof, four wheeled plastic bin
- 300 x Premier 50cm x 40cm pads, 6 x Premier 3mtr Socks, 2 x 50m Premier rolls, 16 x 38cm x 23cm pillows, 6 x 3m Booms, 1 x floor sign, 1 x hazard tape, 60 x waste bags & ties



PART NO	LITRES PER PACK
H1241000	1000 Litres

### Oil 2 Wheeled Bin Spill Response Kit

- 1000L Oil Only spill response kit, comes supplied in a strong, waterproof, four wheeled plastic bin
- 300 x Premier 50cm x 40cm pads, 6 x Premier 3m Socks, 2 x 50m Premier rolls, 16 x 38cm x 23cm pillows, 6 x 3m Booms, 1 x floor sign, 1 x hazard tape, 60 x waste bags & ties



PART NO	LITRES PER PACK
H1220240	240 Litres



## Chemical Absorbents & Spill Kits

### Chemical Pads

- Sonically bonded with cover stock to improve strength and reduce linting
- Can be used on land or water to selectively absorb Oil-based liquids
- Highly absorbent with excellent fluid retention properties.
- Perforated for economy of use



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
C0415040	50cm x 40cm	100	80 Litres

### Chemical Roll

- Cover stock gives excellent wear characteristics
- Bonded and perforated for greater utility and strength
- Highly absorbent with excellent fluid retention properties
- Designed to selectively absorb oil based fluids from land and water



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
C0405040	50cm x 40cm	1	80 Litres

### Chemical Sock

- Spunbond or knitted outer fabric ensures excellent fluid uptake
- For use on all oil based liquids
- Hydrophobic technology - selectively absorbs oils not water
- Ideal for use outside where standing water may be present



PART NO	TYPE	DIMENSIONS	QTY IN PACK	LITRES PER PACK
C0430712	SP	7.5cm x 1.2m	20	90 Litres

### Chemical Pillows

- Ideal for absorbing spills in difficult to access places
- Can be used to catch spills under machinery or where drips and leaks are a problem
- Non-woven outer and high grade polypropylene ensures excellent absorbency and strength



PART NO	DIMENSIONS	QTY IN PACK	LITRES PER PACK
C2053823	38cm x 23cm	16	80 Litres

### Vinyl Spill Response Kit

- 15L Chemical clip top plastic bag with handle.
- 10 x Premier pads 50cm x 40cm, 1 x Premier 1.2m sock, 1 x waste bag & tie



PART NO	LITRES PER PACK
C1290015	15 Litres

### Vinyl Spill Response Kit

- 50L Chemical Spill Kit in Vinyl Holdall (reusable) with shoulder strap
- 30 x Premier 50cm x 40cm pads, 3 x Premier 1.2m socks, 3 x 38cm x 23cm absorbent pillows, 5 x waste bags & ties



PART NO	LITRES PER PACK
C1280050	50 Litres

### 4 Wheeled Drop Front Spill Response Kit

- 1000L Chemical spill response kit, comes supplied in a strong, waterproof, four wheeled plastic bin
- 300 x Premier 50cm x 40cm pads, 6 x Premier 3m Socks, 2 x 50m Premier rolls, 16 x 38cm x 23cm pillows, 6 x 3m Booms, 1 x floor sign, 1 x hazard tape, 60 x waste bags & ties



PART NO	LITRES PER PACK
C1241000	1000 Litres

### 2 Wheeled Bin Spill Response Kit

- 1000L Chemical spill response kit, comes supplied in a strong, waterproof, two wheeled plastic bin.
- 300 x Premier 50cm x 40cm pads, 6 x Premier 3m Socks, 2 x 50m Premier rolls, 16 x 38cm x 23cm pillows, 6 x 3m Booms, 1 x floor sign, 1 x hazard tape, 60 x waste bags & ties



PART NO	LITRES PER PACK
C1220240	240 Litres



## Four Way Entry Spill Pallet

PART NO	DIMENSIONS	QTY IN PACK	WEIGHT
P3201315	122cm x 122cm x 39cm	250 Litre	40kg



## Drum Spill Pallet

- Corrosion free
- EU & UK compliant Oil storage
- Removable plastic grids
- Supplied with forklift Pockets for ease of movement

PART NO	DIMENSIONS	QTY IN PACK	WEIGHT
P3201208	122cm x 82cm x 33cm	240 Litre	23kg



## Drum Spill Pallet

- Corrosion free
- EU & UK compliant Oil storage
- Removable plastic grids
- Supplied with forklift Pockets for ease of movement

PART NO	DIMENSIONS	QTY IN PACK	WEIGHT
P3201813	122cm x 82cm x 33cm	240 Litre	23kg



## Covered Single IBC Spill Pallet

- Corrosion resistant
- Suitable for most BC footprints
- Weatherproof
- Forklift pockets for moving empty units
- Removable decking to assist cleaning
- Robust 100% polyethylene construction

PART NO	DIMENSIONS	QTY IN PACK	WEIGHT
P3202614	256cm x 135cm x 214cm	1140 Litre	181kg





## Bentonite Clay Based Drain Cover

- Bentonite drain covers are ideal for use where the temporary sealing of drains is necessary
- They mould to accommodate most surface irregularities to form a liquid tight seal
- Supplied in packs of two
- Single use only

PART NO	DIMENSIONS	QTY IN PACK	NOTES
D4204545	45cm x 45cm	2	Single use
D4206545	65cm x 45cm	2	Single use



## Orange Polyurethane Drain Cover

- Polyurethane Drain Cover available in three sizes
- Comes in high visibility Orange
- This drain cover can be re-used and is easy to clean
- The PDC is resistant to most chemicals as well as fuels, solvents and oils

PART NO	DIMENSIONS	QTY IN PACK	NOTES
D4204646	46cm x 46cm	1	temp between -40°C to 150°C
D4206161	46cm x 46cm	1	temp between -40°C to 150°C
D4209191	91cm x 91cm	1	temp between -40°C to 150°C



## Abso'net Granules

- High Performance absorbent granules
- A global market leader in absorbent granules
- Mined and processed from 100% natural clay from UK mines
- It is ideal for all non-aggressive spills on any surface, such as walkways, pavements, approach ramps and machinery bases
- Available in bags of 20L or 30L

PART NO	BAG SIZE	PALLET QTY	ABSORBS
2041400	20 Litres	70 Bags	Oil, Fuel & Water based liquids



## Organic Compound

- Ecospill Organic Compound, lightweight and highly absorbent
- Eco-sustainable absorbent compound granules offer instant absorbency and are suitable for indoor and outdoor use
- The granules offer high absorbency, are lightweight, easy to handle and are also fireproof

PART NO	BAG SIZE	PALLET QTY	ABSORBS
U2193060	30 Litres	70 Bags	Oil, Fuel & Water based liquids



PART NO	DIMENSIONS	SIZE	DETAILS
V3920507	68.5 x 50cm	Small	Plant Nappy
V3921007	68.5 x 100cm	Medium	Plant Nappy
V3922014	137 x 200cm	Large	Plant Nappy
V3910507	68.5 x 50cm	Small	Liner Only
V5081002	68.5 x 100cm	Medium	Liner Only
V3912014	137 x 200cm	Large	Liner Only

The Plant Nappy® withstands all weather conditions and is rugged enough to stand plant machinery on all year round to contain any spills.

It's ideal for providing containment for generators and other site machinery, whilst overcoming the problems of filling with water.

The Plant Nappy® filters and separates oil, allowing for water to discharge below the legal oil discharge limits. Durable and reliable it's manufactured from strong PVC with a non-permeable base and has a tough top cover.

The Plant Nappy® liner is a useful addition to complement and extend the life of the Plant Nappy®. The liner sits snugly onto the base of the Plant Nappy® but is easily removed for cleaning or replacement.

- Vinyl coated polyester mesh
- Abrasion resistant
- Oil & chemical resistant
- UV resistant
- High tensile strength
- Temperature resistance, -20°C to 107°C
- Woven Olefin fabric coated with Olefin resin
- Stain, chemical and mildew resistant



## The Railmat

- Great for refuelling areas
- Protects track ballast from Oil & Fuel contamination
- Locomotive traction depots
- Rolling stock yards
- Has an impermeable white base to prevent fluids passing through to the ballast.
- Can be made to size, if required
- 600 GSM
- Supplied in a pack of 2 – 147cm x 4m

PART NO
H0701404

The RailMat is a specially designed mat that locates and fixes between the railway lines.

The Mat allows rain water to run off, but traps oil based spills in it's natural hydrophobic fibre layer.

The RailMat is very effective for preventing oil and fuels leaking from rail vehicles onto the track ballast or sub-surface below.

The RailMat is made from recycled materials as opposed to other plastic based absorbents.

The RailMat has a continuous improvement towards ISO14001 accreditation as part of an environmental management system.

The RailMat is a very cost effective solution when compared to the alternative of installing a drainage system under the track.





## Trademate Bamboo Rayon Pro Wipes

- Outperforms polypropylene (plastic) wet wipes
- Super absorbent with high lift on grime
- Oeko-tex 100 certified with no harmful substances
- 100% biodegradable and from sustainable plant sources
- Cosmetic approved, with zero recorded irritation on all skin types
- Removes paints, semi-cured sealants and adhesives, expanding foam, oils, grease, and more



PART NO	QUANTITY
DGBF25	25 wipes per pack

## Trademate Bamboo Pro Wipes

- Stronger than paper, reduces waste
- Solvent resistant and works great with oils
- Low lint, no fibres left behind
- Re-usable nature, works more like a cloth
- Perfect for Decorators, Trades, Mechanics and workshops
- Made with 80% Eco-friendly bamboo fibre

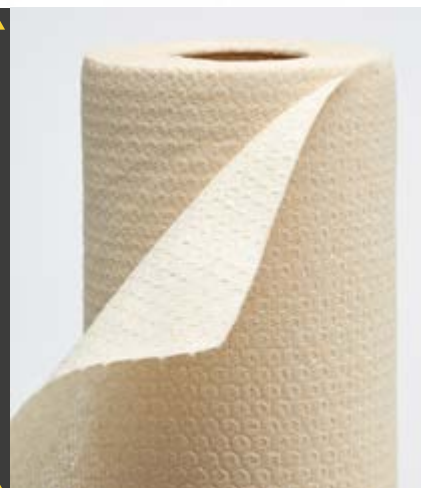
PART NO	QUANTITY
DTM55	55 sheets per pack



“Dirteeze Wipes with a Difference” have created another first, adding a brand new range of wipes made from bamboo, to their innovative stock range of products.

Bamboo grows up to 2 feet per day, is 100% biodegradable and fully sustainable. No use of softwood or hardwood trees that can result in deforestation. No use of plastics. No use of fossil fuels/oil reserves.

Bamboo is nature's answer to our needs for everyday wipes in an environmentally sustainable form, it just so happens that it also performs better than the estimated 90% of wipes in the UK that are made from plastic.







**DIRTEEZE**



Dirteeze wet wipes are made from spunlace, a softer, stronger alternative to more common polypropylene wipes, with significant advantages on wiping performance in terms of absorbency and cleaning power.

## Rough and Smooth

Dirteeze Rough & Smooth wipes have a unique micro-bead surface for increased cleaning power, these wipes are the toughest available.

- Pre-moistened so no need for water
- Dual-sided with micro-beaded side for agitating grime, smooth side for wiping away
- High strength for use on rougher surfaces
- Skin-patch tested as safe to use on skin
- Contains Aloe Vera for keeping hands moisturised.
- Conforms with EC1223/2009
- Cosmetic Directive

### APPLICATIONS

- Use on hands, tools, machinery and most surfaces
- Mobile workers, construction, trade, engineering

PART NO	DESCRIPTION
DGPC80M2	Jumbo Tub 80 micro-beaded degreaser cloths



## Smooth and Strong

Dirteeze Smooth & Strong wipes are an apertured soft spunlace wipe with excellent grab and absorbency, perfect for smooth surfaces.

- Pre-moistened so no need for water
- High drapability for effective cleaning of smallest cracks and surface imperfections
- Extra large wipe size for greater volume wiping tasks
- Medium strength for use on smoother surfaces
- Contains Aloe Vera for keeping hands moisturised
- Conforms with EC1223/2009 Cosmetic Directive

### APPLICATIONS

- Use on hands, tools, machinery and most surfaces
- Mobile workers, construction, trade, engineering

PART NO	DESCRIPTION
DGCL80M2	Jumbo Tub 80 smooth degreaser cloths



## Glass and Plastic

Dirteeze Glass & Plastic wipes are made from Dirteeze unique Hydrocell material, giving a streak-free finish in glass surfaces, also suitable for plastic and ceramic surfaces.

- Pre-moistened so no need for water
- Streak-free
- Hybrid formulation for use on both glass and plastic surfaces

### APPLICATIONS

- Windows and other glass surfaces
- UPVC window frames and other plastic surfaces
- Ceramic tiles, porcelain tiles, linoleum

PART NO	DESCRIPTION
GDCL80M2	Smooth glass and plastic cloths



The Dirteeze Non-Woven product range includes products for rag replacements, low-lint applications, food industry applications, working with solvents, oils, lubricants, spills, as well as technical process wipes.



## Sontek65 Industrial Multi Wipes

- High absorbing Jumbo Roll
- Colour: blue
- Contains 280 sheets per roll

PART NO	DIMENSIONS	PACKS OF
SONTEK65	30cm x 30cm	2



## MAX110 Heavy Duty Industrial Wipes

- Ultra high water and oil absorbency
- Colour: blue
- MAX110B160 contains 150 sheets
- MAX110R475 contains 475 sheets

PART NO	DIMENSIONS	PACKS OF
MAX110B160	30cm x 42cm	1
MAX110R475	32cm x 34cm	1



## LAX60 Industrial Multi Purpose Wipes

- Pop-up box
- Colour: white
- Contains 150 sheets

PART NO	SHEET SIZE	PACKS OF
LAX60B150	30cm x 50cm	1



## LAX60 Standard Duty Industrial Wipes

- Single ply pop-up box
- Colour: white
- Contains 176 sheets

PART NO	SHEET SIZE	PACKS OF
MAX60B176	30cm x 42cm	1



## MAX75 Industrial Multi Purpose Wipes

- Quarter fold
- Colour: white
- Contains 200 sheets

PART NO	SHEET SIZE	PACKS OF
MAX75B200	30cm x 42cm	1

# RUST-OLEUM®

INDUSTRIAL

## Multi-Purpose Spray

Lubricates, cleans and protects

- Stops squeaking
- Creeping properties
- Displaces water
- A film layer is left on the surface after cleaning
- Does not contain silicon
- Temperature range: -30°C to 145°C
- Dissolves grease, tar, oil and some adhesives

PART NO

1610



For the best lubrication and preservation of machines, tools and workpieces

## Cutting & Tapping Spray

Lubricates and cools all cutting tools

- Prolongs tool life
- Reduced friction leads to better surface finish
- Increases process speeds
- Temperature range: -30°C to 130°C

PART NO

1611



## Chain & Drive Spray

Reduces friction, helps prevent wear

- Good adhesion
- Resists detergent washing
- H1 compliant for incidental food contact
- Temperature range: -35°C to 180°C

PART NO

1612



## White Grease Spray

Withstands extreme loads and conditions

- Stops squeaking
- Water repellent
- Corrosion preventive
- Suitable for vertical surfaces, will not run

PART NO

1617



## Ceramic Anti Seize spray

Protection of all threaded fasteners

- Prevents seizing and galling
- Withstands extreme temperatures: -30°C up to +1100°C
- Water, chemical and weather resistant
- Insulates, prevents seizure between dissimilar metals

PART NO

1616



## Heavy Duty Cleaner/Degreaser

Powerful cleaning and degreasing

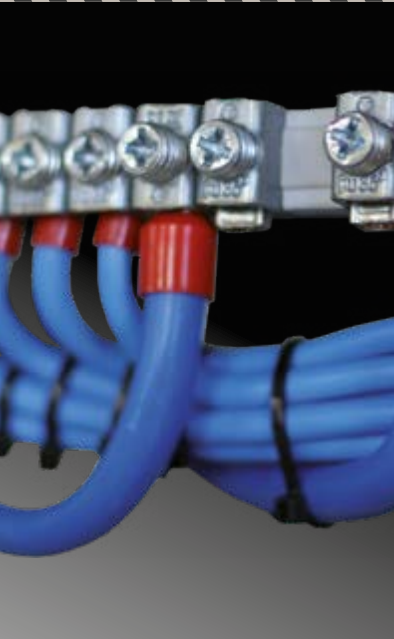
- Heavy duty cleaner
- Components can be rinsed off with water
- Removes grease, oil, tar etc.
- Quickly penetrates grease and oil

PART NO

1631







## Silicone Spray

Odourless and colourless dry lubricant

- Dry lubricant
- Stops squeaking
- Water resistant and repellent
- Temperature range: -40°C to 200°C



PART NO  
1615

## Electrical Cleaner

Effective cleaning of all electronics

- Leaves no residue
- Fast to evaporate
- Low odour
- Removes dirt, oil, wax etc



PART NO  
1632

## Freeze & Release Spray

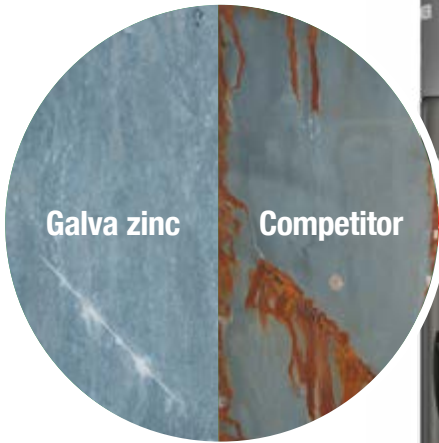
High quality rust releaser with shock effect

- Water repellent
- Temperature range: -50°C to 170°C
- Shocks components with rapid temperature reduction



PART NO  
1614

PART NO	LUBRICATES	PENETRATING	GREASE	DRY LUBRICANT	STOPS SQUEAKING	ADHESIVE	CREEPING	REMOVING RUST	ANTI-CORROSIVE	DISPLACES WATER	WATER REPELLENT	PROTECTING	CLEANS	COOLING	HIGH TEMPERATURE
1610	✓	✓			✓		✓		✓	✓	✓	✓	✓		
1611	✓													✓	
1612	✓	✓				✓			✓						
1614	✓	✓					✓	✓	✓		✓	✓			
1615	✓	✓		✓	✓						✓	✓			
1616	✓	✓	✓						✓		✓	✓			✓
1617	✓	✓	✓		✓				✓		✓	✓			
1631													✓		
1632													✓		



### Hard Hat® Galva Zinc

The No.1 zinc coating

- Matt Grey
- Cathodic protection of bare and galvanised steel
- 90% pure zinc in dry paint film
- 90 hours salt spray test!
- Resists 500 hours of salt spray testing (DIN 50021 SS)
- To recoat within one hour, brush version after 4 hours
- To recoat with HARD HAT® metallic sprays

PART NO	DESCRIPTION
2185	500ml



### Hard Hat® 1085 Galva Zinc

The No.1 zinc coating

- Cathodic protection of bare and galvanised steel
- 90% pure zinc in dry paint film
- Resists 500 hours of salt spray testing (DIN 50021 SS)
- Heat resistance up to 300°C
- To recoat after 4 hours
- To recoat with HARD HAT® metallic sprays
- Available pack size: 0.5L / 1L / 2.5L

PART NO	SIZE
1085.0.5L	500ml
1085.1L	1 Litre
1085.2.5L	2.5 Litre

### 7200 Floorcoat PU

Easy to apply, any colour

- Single pack floor coating hard wearing & easy to apply
- Extra durable because of polyurethane addition
- Excellent flow
- Light to medium traffic, indoor/outdoor
- High coverage: 9m<sup>2</sup>/L coat
- Available in 2.5L & 5L

PART NO	SIZE
7200.2.5L	2.5 Litre
7200.5L	5 Litre



PART NO	DESCRIPTION
7201	Primer

Please state colour on order

RAL 7001	English Red	RAL 7035	RAL 9010	RAL 1023
----------	-------------	----------	----------	----------

# CombiColor® Original

Time saving paint for metal protection

- Primer and topcoat in one
- For application onto rust, bare metal
- High coverage: 10.5m<sup>2</sup> per litre
- Sag resistant, no brush strokes
- White spirit dilutable
- Usable down to 5°C
- Available pack sizes: 250ml, 750 ml, 2.5 litre, 400ml aerosol

**NOW AVAILABLE IN ANY COLOUR (RAL, NCS, BS AND MORE)**



## Gloss

7344 ral 1023	7389 RAL 7016	7396 RAL 9016	7341 RAL 1013	7314 Gold	7315 RAL 9006	7322 Marlin Blue	7323 RAL 5012	7324 RAL 5015	7326 RAL 5010	7328 RAL 5002	7329 RAL 5011	7333 RAL 6018	7334 RAL 6010	7335 RAL 6011	7336 RAL 6001
7337 RAL 6005	7339 RAL 6009	7342 RAL 1015	7343 RAL 1003	7346 RAL 1021	7348 RAL 1007	7349 RAL 1004	7354 RAL 2000	7363 RAL 4001	7365 RAL 3000	7366 RAL 3020	7373 RAL 8001	7377 RAL 8011	7379 RAL 9005	7381 RAL 7035	7382 RAL 7001
<b>Satin</b>			<b>Matt</b>												
7383 Silver gray	7386 RAL 7005	7392 RAL 9010	7347 RAL 1003	7320 RAL 5017	7375 Black	7394 White	7378 Black	7390 White							



# Hard Hat®

The No.1 industrial paint aerosol

- More paint in the can, resulting in a higher coverage: 3-4m<sup>2</sup>. One Hard Hat® aerosol equals up to 2-3 standard aerosols
- A higher film build without drips or runs, in one go twice the opacity of cheaper paint sprays (saving a cross layer). Normal coverage in one pass. Quicker drying: 10-15 minutes!
- Higher quality pigments for a longer gloss and colour retention. The tough flexible film resists chipping, cracking and peeling.

**NOW AVAILABLE IN ANY COLOUR (RAL, NCS, BS AND MORE)**

2114 RAL 9006	2123 RAL 5012	2124 RAL 5005	2125 National blue	2126 RAL 5010	2127 RAL 5002	2128 RAL 5003	2133 RAL 6018	2134 RAL 6032	2135 RAL 6011	2136 RAL 6001	2137 RAL 6005	2138 RAL 6010	2141 RAL 1013	2142 RAL 1015	2143 RAL 1018
2144 RAL 1023	2145 RAL 1028	2146 RAL 1021	2147 RAL 1003	2148 RAL 1007	2149 RAL 1004	2151 RAL 2003	2152 RAL 2002	2154 RAL 2000	2163 RAL 4001	2165 RAL 3000	2166 RAL 3020	2173 RAL 8001	2174 RAL 8002	2176 Satin black	2178 Matt black
2179 RAL 9005	2181 RAL 7035	2184 RAL 7001	2186 RAL 7005	2187 RAL 7032	2189 RAL 7016	2190 Matt white	2192 RAL 9010	2193 Satin white	2194 RAL 9001	2500 Transparent	2129 RAL 5015	2156 RAL 2004	2196 RAL 9016		





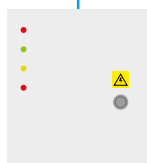
# SECURITY & ACCESS



- 297 Security & Access Solutions
- 298 Magnets & Brackets
- 299 Power Supplies
- 300 Exit Buttons & Break Glass Units
- 301 Electric Locking Devices



STP-POWER SUPPLIES	
STP-PSU1A-12	12Vdc 1 amp
STP-PSU3A-12	12Vdc 3 amp
STP-PSU5A-24	24Vdc 5 amp



STP-MAGLOCKS	
STP-EM01	Slim unmonitored
STP-EM02	Slim monitored
STP-EM04	Double slim unmonitored
STP-EM05	Double slim monitored
STP-EM10	Standard unmonitored
STP-EM20	Standard monitored
STP-EM60	Double standard unmonitored
STP-EM40	Double standard monitored

STP-EXIT BUTTONS	
STP-SPB001	Plastic single gang door release
STP-STSPB040NS	Architrave illuminated
STP-SPB004S	Surface mount green dome
STP-NT200	Illuminated no touch



STP-BRACKETRY	
STP-EM300ZL	Slim maglock Z & L
STP-EM300BZL	Budget slim maglock Z & L
STP-EM300AZLG	Slim maglock covered Z & L
STP-EM500ZL	Standard maglock Z & L
STP-EM500AZLG	Standard maglock covered Z & L

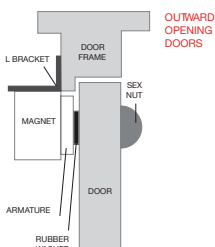


STP-ELECTRIC RELEASES	
STP-ER310-1224	Dual voltage ansi style
STP-M/R1/ADJ	Mortice/rim fail secure euro style
STP-M1SAF	Mortice fail safe euro style

**STP-NIGHTLATCH/LOCK SET**  
Includes half lever handle set, single euro cylinder, pair of euro profile escutcheons and night latch.

STP-BREAK GLASS UNITS	
STP-KGG1SG	Single pole
STP-CP22	Double pole resettable
STP-CP3	Triple pole with cover
STP-CP3-LSRC	Triple pole with LED, sounder
STP-KGG300SG-WP	Triple pole weatherproof

STP-ACCESS FROM SECURE SIDE	
STP-EASIPROX	Standalone proximity reader
STP-DG500	Standalone keypad/prox reader
STP-ILLUM-MF	Paxton approved MF reader
STP-HID-R10iCLASS	HID reader





## Slim Magnets and Brackets

STP-EM02



STP-EM05

STP-EM02DS

### Single and Double Slim Maglock, Monitored

- Dual voltage, surface mount
- Silver anodised aluminium
- Lock monitoring
- 12V DC current consumption, 500mA current draw
- 24V DC current consumption, 250mA current draw
- Up to 275kg (600lb) holding force
- Top plate, armature and fixings included

PART NO	DESCRIPTION	CURRENT	HOLDING FORCE
STP-EM02	Single slim maglock	12V DC current consumption, 500mA current draw 24V DC current consumption, 250mA current draw	Up to 275kg (600lb) holding force
STP-EM02DS	Single slim maglock	12V DC current consumption, 500mA current draw 24V DC current consumption, 250mA current draw	Up to 275kg (600lb) holding force
STP-EM05	Double slim maglock	12V DC current consumption, 1Amp current draw (500mA per side) 24V DC current consumption, 500mA current draw (250mA per side)	Up to 275kg holding force (per side)



### Aluminium Z&L Bracket Set

- Used on inward opening doors
- Adjustable by 17mm
- Adjustable fixing bracket for the maglock to be moved forward or back
- 2 brackets required for double maglocks
- Compatible for all slim cased maglocks in our range
- 2 x needed for slim double magnets

PART NO
STP-EM300ZL

## Standard Magnets and Brackets

### Single and Double Standard Maglock, Monitored

- Lock monitoring
- Surface mount
- Dual voltage



STP-EM20

STP-EM40DS

STP-EM40

PART NO	DESCRIPTION	CURRENT	HOLDING FORCE
STP-EM20	Single standard maglock	Current draw: 500mA @ 12V DC/ 250mA @ 24V DC	Up to 1200lb holding force
STP-EM40	Double standard maglock	Current draw (each side): 500mA @ 12V DC/ 250mA @ 24V DC	Up to 1200lb holding force
STP-EM40DS	Double standard maglock	Current draw (each side): 500mA @ 12V DC/ 250mA @ 24V DC	Up to 1200lb holding force (per side)



### Z&L Bracket Set

- Used on inward opening doors
- 2x needed for standard double magnets

PART NO
STP-EM500ZL

## External Slim And Standards Magnets

STP-EXM12-24



STP-EXT800

### Stainless Steel Maglocks, Dual Voltage, Monitored

- Lock monitored
- Side and face fixing
- 12V DC current consumption with 500mA current draw
- 24V DC current consumption with 250mA current draw
- 12/24V DC
- 20mm male conduit fitting

PART NO	DESCRIPTION	HOLDING FORCE
STP-EXM12-24	Stainless steel weatherproof	Up to 275kg (600lb) holding force
STP-EXT800	Stainless steel budget	Up to 360kg holding force



### Bracket Sets

- Silver anodised aluminium
- Used on inward opening doors

PART NO	DESCRIPTION	SET USED FOR
STP-EM500ZLW	Z&L Bracket set	EXM12-24, EXT800, EXT1200
STP-EM850Z	Z bracket	GL850, EXT800, G600S-12 and EXT600-SLCF





## Small Boxed 12V DC Power Supplies



Battery back up not included

### 7.0 Amp Hour Re-Chargeable Battery

- 94(H) x 150(W) x 65(D)mm
- 12V, 7Ah
- Two batteries are required for 24V power supplies (connect in series)
- Battery compatible with all power supplies listed



PART NO  
STP-BAT7

### Power Supply Boxed

- 12V DC
- Metal box
- Hinged lid

PART NO	CURRENT	VOLTAGE	LOCKABLE	DIMENSIONS (H x W x D)
STP-POWERBOXV	5A	12V	Yes	217 x 179 x 72mm
STP-PSU1A-12S	1A	12V	Yes	235 x 205 x 95mm
STP-PSU2A-12S	2A	12V	Yes	215 x 225 x 80mm
STP-PSU3A-12S	3A	12V	Yes	260 x 195 x 75mm

### CCTV Power Supply Regulated and Encapsulated

- 12V DC
- 1amp



PART NO  
STP-CP1210

## Large Boxed 12V DC and 24V DC Power Supplies



Battery back up not included

### 12V/24V DC Boxed Power Supply

- Lockable hinged lid (includes 2 keys)
- Battery back-up (Battery not included)
- LED status indicators
- CE RoHS compliant
- Auto reset
- Surge Protected

PART NO	CURRENT	VOLTAGE	LOCKABLE	DIMENSIONS (H x W x D)
STP-PAXBOX	5A	12V	Yes	272 x 332 x 76mm
STP-PSU1A-24L	1A	24V	Yes	330 x 330 x 85mm
STP-PSU1A-12L	1A	12V	Yes	235 x 205 x 95mm
STP-PSU2A-12L	2A	12V	Yes	215 x 225 x 80mm
STP-PSU3A-12L	3A	12V	Yes	260 x 195 x 75mm
STP-PSU3A-24L	3A	24V	Yes	275 x 330 x 80mm
STP-PSU5A-24L	5A	24V	Yes	420 x 400 x 85mm

### 12V DC Boxed Power Supply

- Lockable hinged lid (includes 2 keys)
- LED status indicators
- CE RoHS compliant
- Auto reset
- Internal ON/OFF power switch
- Individual LED output indicator
- Size (H x W x D): 290 x 216 x 68mm

PART NO	DESCRIPTION
STP-9WAYBOX	9 x 12V DC outputs, 10A
STP-18WAYBOX	18 x 12V DC outputs, 20A

Battery back up not included



STP-9WAY



STP-18WAY



# SECURITY & ACCESS • EXIT BUTTONS & BREAK GLASS UNITS



STP-CP3-LSRC

STP-CP3

STP-WWG7-220G

STP-CP22

## Break Glass Units

- Resettable
- Surface mount
- Single gang

PART NO	DESCRIPTION
STP-CP3-LSRC	Green resettable break glass unit with protective cover
STP-CP3	Green resettable break glass
STP-WWG7-220G	External rated, break glass
STP-CP22	Green surface mount, yellow drop down flag break glass



STP-SPB003S

STP-SPB004S

STP-SPB004S(W)

## 'Press To Exit' Units

- Surface mount
- Change over contact

PART NO	DESCRIPTION
STP-SPB003S	Surface mount 25mm button
STP-SPB004S(W)	Weatherproof surface mount green dome exit button
STP-SPB004S	Surface mount green dome button



STP-DU03/CP22

STP-DU04/CP22

## Dual Unit Complete with Resettable Double Pole Break Glass

- Surface mount
- Products can be easily switched on the back box for either vertical or horizontal orientation
- Interchangeable unit compatible with most single gang exit buttons and break glass units

PART NO	DESCRIPTION
STP-DU03/CP22	25mm stainless steel button
STP-DU04/CP22	green dome exit button

## External Rated Triple Pole (IP67) Break Glass

- Single gang Weatherproof
- Can be changed to resettable using MX04E element



PART NO
STP-KGG300SG-WP

## Flush Mount Infrared No Touch Button With Adjustable Proximity Range

- Illuminated red and green changing LED
- Single gang stainless steel back plate
- Adjustable door opening time and LED colour change
- 12/24V DC
- Single pole double throw
- Surface mount option available (add SPB/SS back box)
- IP65 (sensor unit only)



PART NO
STP-NT200

## IP66 Surface Mount Push Buttons

- Momentary contact
- N/O, N/C, C
- RoHS compliant
- Quality stainless steel switch body construction
- 12V DC Independent bi-colour LED illumination
- M16/20 Pre-moulded knockouts



PART NO
STP-STP3E0659NI-GB-PTE



## Universal 12/24V DC Release

- Ansi style release
- Switchable fail safe / fail secure
- Lip extensions available
- Reversible
- Dual voltage
- Supplied with both long and short faceplates so suitable for wooden and metal doors
- TIP; Fail safe means when the power is cut the door will open, fail secure means when the power is cut the door will remain shut.



**PART NO**  
STP-ER310-1224

## Mortice/Rim Release Fail Secure Adjustable Jaw

- Outward opening rim release option
- Euro style release
- 12Vac
- Mortice or rim fitting

**PART NO**  
STP-M/R1/ADJ



## Mortice Fail Safe Euro Style Release - Adjustable Jaw

- 12V DC
- Outward opening rim release option
- TIP; Fail safe means when the power is cut the door will open, fail secure means when the power is cut the door will remain shut.

**PART NO**  
STP-M1SAF-ADJ



## 12-24V DC Fail Safe 25mm Wide

- Microswitched
- Mortice fitting
- Bolt diameter 15.5mm
- Bolt throw 16.5mm
- Activating current 900mA
- Holding current 200mA
- Door position monitoring
- Stainless steel

**PART NO**  
STP-EB180

## 12V DC 150mm Mini Solenoid Bolt

- Microswitched
- Mortice fitting
- Fail safe
- Bolt diameter 12mm
- Bolt deadlocks
- Activating current 700mA
- Holding current 100mA
- Door position monitoring
- Stainless steel

**PART NO**  
STP-EB150



## Glass Door Fail Safe Monitored Solenoid Bolt

- Satin anodised aluminium finish
- Compact design gives neat appearance
- Lock monitored
- LED indicator
- Adjustable lock delay 0 seconds and 3 seconds
- Includes shims for varying glass thickness
- Supplied with fixings

**PART NO**  
STP-EB-GDN

## Surface Mount Fail Safe 12V DC Solenoid Bolt with Monitoring

- Satin anodised aluminium finish
- Compact design gives neat appearance
- Lock monitored
- LED indicator
- Adjustable lock delay: 0 seconds & 3 seconds
- Supplied with fixings

**PART NO**  
STP-EB165



## Surface Glass Mount 12V DC Fail Safe Solenoid Bolt

- Microswitched
- Suitable for glass 10-12mm thick
- Bolt diameter 16mm
- Bolt throw 16mm
- Activating current 900mA
- Holding current 300mA

**PART NO**  
STP-EB300VGL







# TOOLS & MEASUREMENT



303 Tools

308 Test & Measurement



## Crimp Tool for Pre-Insulated Terminals

- Hand ratchet tool with cushion handles to crimp pre-insulated terminals - 0.5mm<sup>2</sup> to 6mm<sup>2</sup>
- For precise crimping both conductor and insulation in one easy action
- New improved ergonomic design for easy crimping
- Length: 250mm
- Weight: 0.59kg

PART NO
YRPI-CH



## Crimp Tool for Pre-Insulated Terminals

- Hand ratchet tool to crimp pre-insulated terminals - 0.5mm<sup>2</sup> to 6mm<sup>2</sup>
- For precise crimping both conductor and insulation in one easy action
- New improved ergonomic design for easy crimping
- Length: 230mm
- Weight: 0.6kg

PART NO
YRPI



## Crimp Tool for Pre-Insulated Terminals

- Hand ratchet tool to crimp right-angled pre-insulated female push-on terminals - 1.5mm<sup>2</sup> (red) and 2.5mm<sup>2</sup> (blue)
- Length: 242mm
- Weight: 0.54kg

PART NO
YRPI-RA



## Service Pliers

- Service pliers to crimp pre-insulated and un-insulated terminals - 0.5mm<sup>2</sup> to 6mm<sup>2</sup> with wire cutter and bolt cutter
- Length: 230mm
- Weight: 0.13kg

PART NO
YSPUI



## Crimp Tool for Un-Insulated Terminals

- Hand ratchet tool to crimp un-insulated terminals - 0.5mm<sup>2</sup> to 10mm<sup>2</sup>
- New improved ergonomic design for easy crimping
- Length: 230mm
- Weight: 0.6kg

PART NO
YRPU







## Crimp Tool for Un-Insulated Terminals

- Hand ratchet tool to crimp push-on un-insulated flat-tab or open barrel terminals - 0.5mm<sup>2</sup> to 6mm<sup>2</sup>
- New improved ergonomic design for easy crimping
- Length: 230mm
- Weight: 0.6kg

PART NO
YRPT



## Crimp Tool for Un-Insulated Terminals

- Hand ratchet tool to indent crimp un-insulated terminals

PART NO	SIZE	LENGTH	WEIGHT
YRP1516	1.5mm <sup>2</sup> to 16mm <sup>2</sup>	280mm	0.47Kg
YRP625	6mm <sup>2</sup> to 25mm <sup>2</sup>	350mm	0.7Kg
YRP16	10mm <sup>2</sup> to 16mm <sup>2</sup>	260mm	0.6Kg



## Large Hand Crimp Tool

- Mechanical indent crimp tool - 10mm<sup>2</sup> to 95mm<sup>2</sup>
- Change die size by a screw adjustment
- Length: 570mm
- Weight: 3.2kg

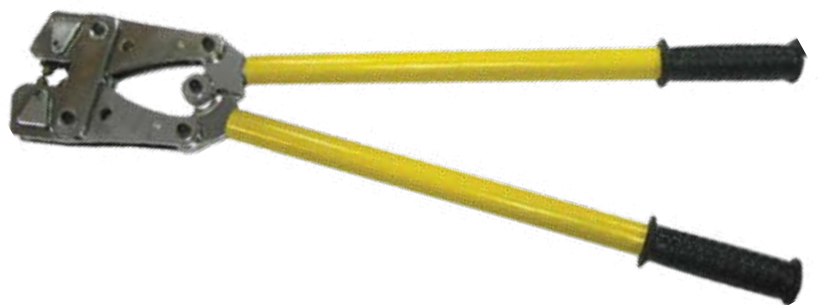
PART NO
YCT1095I



## Large Hand Crimp Tools

- Mechanical crimp tool with revolving hexagonal crimp dies

PART NO	SIZE	LENGTH	WEIGHT
YCT650H	6mm <sup>2</sup> to 50mm <sup>2</sup>	380mm	1.5Kg
YCT6120H	6mm <sup>2</sup> to 120mm <sup>2</sup>	650mm	3.8Kg
YCT25150H	25mm <sup>2</sup> to 150mm <sup>2</sup>	650mm	3.9Kg
YCT10240I	10mm <sup>2</sup> to 240mm <sup>2</sup>	520mm	4Kg



## Hand Ratchet Crimp Tool

- Hand ratchet hexagon crimp tool - 10mm<sup>2</sup> to 150mm<sup>2</sup>
- 5 pairs of hexagonal profile dies make up full set
- Tool is supplied with case and die sets are ordered as required
- Length: 420mm
- Weight: 2kg

PART NO
YRT10150H







## TQ™ Copper Tube Terminals

- Application: Un-insulated heavy duty terminals suitable for power cables up to 1000 volts.
- Material: Manufactured from seamless copper tube to BS EN 12449:2012
- Finish: Electra Tin plated to BS 1872:1974
- Tensile performance requirements to BS 61238-1 : 2003
- All terminals are manufactured from 99.5% copper and double annealed to ensure optimum ductility to avoid severe deformation such as cracking and splitting when crimped
- Terminals are supplied with an inspection window which enables the user to ensure full and correct insertion of the conductor and a flared entry ensures a smooth transition from terminal to conductor
- Internal barrel diameters suit standard cables as defined in BS 6360
- All SWA terminals are identified on the palm with cable size (and stud hole size) to ensure correct selection of the appropriate tool and dies 1 D 1

PART NO	PACK	STUD HOLE
Y1.5-4TQ	100	M4
Y1.5-5TQ	100	M5
Y1.5-6TQ	100	M6
Y2.5-4TQ	100	M4
Y2.5-5TQ	100	M5
Y2.5-6TQ	100	M6
Y4-4TQ	100	M4
Y4-5TQ	100	M5
Y4-6TQ	100	M6
Y4-8TQ	100	M8
Y4-10TQ	100	M10
Y6-4TQ	100	M4
Y6-5TQ	100	M5
Y6-6TQ	100	M6
Y6-8TQ	100	M8
Y6-10TQ	100	M10
Y10-5TQ	50	M8
Y10-6TQ	50	M6
Y10-8TQ	50	M8
Y10-10TQ	50	M10
Y10-12TQ	50	M12
Y16-5TQ	10	M8
Y16-6TQ	10	M6
Y16-8TQ	10	M8
Y16-10TQ	10	M10
Y16-12TQ	10	M12
Y25-5TQ	10	M8
Y25-6TQ	10	M6
Y25-8TQ	10	M8
Y25-10TQ	10	M10
Y25-12TQ	10	M12
Y35-6TQ	10	M6
Y35-8TQ	10	M8

PART NO	PACK	STUD HOLE
Y35-10TQ	10	M10
Y35-12TQ	10	M12
Y35-14TQ	10	M14
Y35-16TQ	10	M16
Y50-6TQ	10	M6
Y50-8TQ	10	M8
Y50-10TQ	10	M10
Y50-12TQ	10	M12
Y50-14TQ	10	M14
Y50-16TQ	10	M16
Y70-6TQ	10	M6
Y70-8TQ	10	M8
Y70-10TQ	10	M10
Y70-12TQ	10	M12
Y70-14TQ	10	M14
Y70-16TQ	10	M16
Y95-6TQ	10	M6
Y95-8TQ	10	M8
Y95-10TQ	10	M10
Y95-12TQ	10	M12
Y95-14TQ	10	M14
Y95-16TQ	10	M16
Y120-8TQ	10	M8
Y120-10TQ	10	M10
Y120-12TQ	10	M12
Y120-14TQ	10	M14
Y120-16TQ	10	M16
Y120-20TQ	10	M20
Y150-8TQ	10	M8
Y150-10TQ	10	M10
Y150-12TQ	10	M12
Y150-14TQ	10	M14
Y150-16TQ	10	M16

PART NO	PACK	STUD HOLE
Y150-20TQ	10	M20
Y185-10TQ	10	M10
Y185-12TQ	10	M12
Y185-14TQ	10	M14
Y185-16TQ	10	M16
Y185-20TQ	10	M20
Y240-10TQ	5	M10
Y240-12TQ	5	M12
Y240-14TQ	5	M14
Y240-16TQ	5	M16
Y240-20TQ	5	M20
Y300-10TQ	5	M10
Y300-12TQ	5	M12
Y300-14TQ	5	M14
Y300-16TQ	5	M16
Y300-20TQ	5	M20
Y400-10TQ	5	M10
Y400-12TQ	5	M12
Y400-14TQ	5	M14
Y400-16TQ	5	M16
Y400-20TQ	5	M20
Y500-12TQ	2	M12
Y500-14TQ	2	M14
Y500-16TQ	2	M16
Y500-20TQ	2	M20
Y630-12TQ	2	M12
Y630-14TQ	2	M14
Y630-16TQ	2	M16
Y630-20TQ	2	M20
Y800-*TQ	2	Any
Y1000-*TQ	2	Any

\* = Denotes Stud Hole Size



## Competence XXL II Electrician's Tool Set - 115 Pcs

- Case: robust, large, stable and secure with lid brake
- The correct torque protects material from damage and ensures no additional follow-up work
- Internationally award-winning VDE-insulated tools, each individually tested at 10,000 V AC and approved for use at 1,000V AC
- Gas-filled shock absorbers hold the lid in all positions and reduce the risk of injury when closing
- Wiha pliers require less force and reduce pressure on wrists. Ergonomic handle design makes work easier and prevents occupational illnesses
- Trolley with stable in-line rollers allow easy and stress-free transportation of tools to the work area

PART NO
42069



## E-Screwdriver SpeedE® Electric

- An electric screw-driving assistant which relieves you of bothersome screw-fastening, yet allows you to finish tightening carefully by hand
- Twice as fast as a conventional screwdriver
- Protection function to prevent damage to materials (max. 0.4 Nm)
- Increases your control fixing by hand with fall sensitivity
- Electronic ratchet for rapid fixing without past - adjustment.
- 100% compatible with Wiha SlimBit system
- SlimBits tested at 10,000V AC and approved for 1,000V AC
- Re-chargeable standard battery

PART NO	SET	INCLUDES
42266	Set 1	Slotted, Phillips, PlusMinus/Pozidriv, 10 pieces in L Boxx Mini with slimBits, batteries and UK charger
42267	Set 2	Mixed 13 pcs in L Boxx Mini with slimBits, easyTorque adapter, batteries and UK charger
42268	Set 3	Mixed 25 pcs in L Boxx Mini with slimBits, easyTorque adapters, batteries and UK charger



## 13 Pcs Adjustable Torque Tool

PART NO
40674



## 4 Pcs Various Torque Sets

PART NO
41476



## Torque Adaptors

- 0.8/2.0/2.5/2.8/4.0 Nm

PART NO
41479



## Various adaptors sold individually

- 0.8/2.0/2.5/2.8/4.0 Nm





## Tool Set slimVario® Electric - 31 Pcs

- All tools securely arranged in a robust, orderly bag
- Each tool individually tested at 10,000V AC and approved for 1,000V AC
- Manufactured acc. to IEC 60900



PART NO
43465

## Fine Screwdriver Set PicoFinish® slimVario® Electric

- 4 pcs with slimBits
- Fully compatible with the Wiha slimBit system
- Ideal for CCTV and intricate work
- Rotating cap allows users to turn the screwdriver quickly and sensitively



PART NO
43167

## Screwdriver and Bit Set slimVario® Screwdriver - 18 Pcs

- All tools securely arranged in a robust, orderly bag
- Wiha slimBits ensure good, protected access to deep-set screws
- Extensive interchangeable blade system saves you space
- Each tool individually tested at 10,000V AC and approved for 1,000V AC
- Manufactured acc. to IEC 60900



PART NO
41231

## Industrial Electric Heavy-Duty Diagonal Cutters with DynamicJoint®

- Up to 40% more cutting force thanks to optimised leverage
- Durable thanks to high-quality, chrome-plated pliers surface to prevent corrosion
- Special DynamicJoint® design reduces effort required for cutting



PART NO	SIZE
41310	160mm
41320	180mm
41330	200mm

## Crimp Tool

- For processing of red, blue and yellow isolated cable eyes, pin-end cable connectors, contact pins, contact pin sleeves, circular pins, circular pin sleeves, batch connectors and parallel connectors according to DIN 46234
- For standardised, solderless electrical connections



PART NO
33841

## Automatic Crimp Tool

- Conventional use of crimping pliers poses a risk that wire-end sleeves will snag in the pliers or be crimped incorrectly
- These automatic crimping pliers with hex crimping can eliminate unnecessary cable and wire-end sleeve waste
- With a wide crimping range between 0.08 and 16 mm<sup>2</sup>, they conveniently combine two crimping pliers in a single tool
- The hexagonal crimping prevents small wire-end sleeves from snagging
- The feed also provides process safety by preventing the plastic cover from being crimped
- An integrated lever ensures that the crimping process can be stopped manually at any time



PART NO
41246



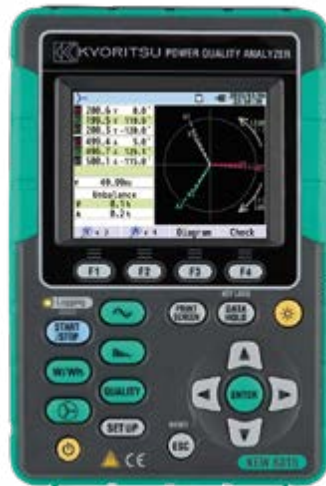
## KEWTECH

### Power Quality Analyser

- Check that you are using your energy efficiently
- Balanced loads, any issues with harmonics, correct loading
- Checks that your supplier is providing you with a good quality supply to the prescribed standard
- When you get intermittent supply problems a PQA instrument enables you the diagnostically find the issue

The KEW6315 is easy to use with quick start menu guide and intuitive user interface. It measures events, harmonics and general datalogging all at once so no chance of missing anything or selecting the wrong test. Reporting is fast and easy with two standard reports available in moments. Comes with everything needed to get started.

PART NO  
KEW6315



### Earth Resistance Testing

There are three ways to do Earth Resistance testing:

- Dedicated Earth Resistance Tester for testing single spikes with three or two wire method
- Earth Resistance Clamp Meter for when you are testing a single spike in a multi-spike system
- KT65DL – Multifunction tester – see separate listing

### Earth Resistance Tester

- 20 / 200 / 2000Ω ranges
- Measures earth voltage
- Allows earth resistance testing without tripping earth leakage current breakers
- 2 wire simplified measurement system included as standard
- Dust and drip proof - IP54



PART NO  
KEW4105A

### Earth Resistance Clamp

- True RMS for highly accurate readings
- Measures earth resistance without auxiliary earth spikes
- Wide range from 0.05 to 1200Ω
- Earth leakage from 0.1mA to 30A
- Noise check function
- Data hold memory function
- Back light and hard carry case



PART NO  
KEW4200

### SmartPAT - PAT Tester

The Smartpat is the latest in PAT testing it can test any appliance and portable RCDs. It can be used manually or in automatic download mode via the free KEWPAT app and your phone or tablet. It can conduct a run / leakage test for 230V and 110V appliances.

- Automatic Test sequences in manual mode
- Make your own automatic test sequences in remote mode
- Long and short earth continuity tests
- 250/500V insulation tests
- Earth test lead null facility
- Easy to use – clear quick start guide
- Comes with all test leads to get you going and all stored in a convenient carry case

PART NO  
SMARTPAT



### Bluetooth Label Printer

- Bluetooth label printer used in conjunction with the free KEWPAT app
- Standard PASS / FAIL labels
- Your Logo PASS / FAIL labels
- Barcode Labels
- QR Code labels

PART NO  
KEW80L



### Adaptors

- Adaptors for industrial appliances and extension leads

PART NO  
ELKIT



### FREE PAT App

- Collects appliance details
- Risk Assessment
- Cable calculator
- Results storage
- PDF/CSV output
- Create your own autotests
- Barcode scanner
- Camera



# KEWTECH



## MFT for Industrial Installers

Advanced featured Multifunction tester with one rotary switch, a dot matrix screen and 4 function keys ensuring that this is the most intuitive and easiest to use

- 0.001Ω resolution Loop impedance
- No trip loop impedance with low susceptibility to noise
- Three ways to start a test: Test button, Lockdown test button and remote switch in test probe
- Auto RCD test with test results all on one screen
- Earth Resistance & Phase rotation
- PAT Test function with download
- Insulation 250, 500, 1000V with high voltage warning LED
- Continuity
- Advanced memory with Zs tables

PART NO  
KT65DL

## Phase Rotation

There are three ways to undertake a phase rotation check.

- Non-contact with the KEW8035
- Traditional rotating disc type
- KT65DL Multifunction tester – see separate listing

## Phase Rotation

- Intuitive rotating disc type
- New and old colour schemes
- Fused test leads

PART NO  
KEW8031F



## Non-contact Phase Rotation Meter

- Just clip insulation – no metal terminal contact needed
- For 2.4 to 300mm diameter cables
- Much safer way of testing
- Indication by the rotary illumination of LEDs and logical audible tones
- Magnet mounting feature
- Wide range 70V to 1000V installations



PART NO  
KEW8035

## Three Phase Testing Adaptor

- A really useful adaptor for three phase circuits
- Makes testing faster, easier and more secure
- For both dead testing and live testing
- Just add your own industrial plug
- Clearly marked terminals with old and new colours referenced

PART NO  
KEW3PH



## Safe Isolation Kit

A safe Isolation kit in a dedicated bag including the proving unit held in a pocket with a transparent window which is readily available at all times, includes:

- The popular KT1780 two pole tester with clear oversized LEDs
- High output proving unit
- The one size fits all lock off device
- Fits all toggle switch MCBs and mains switches
- Selectable combination lock – no keys to lose
- Highly practical carry case

PART NO  
KEWISO2



## 5KV Insulation Tester

- Insulation Resistance to 1TΩ
- Short circuit current up to 1.5mA
- Wide test voltage range from 250V to 5000V
- Diagnostics function of PI and DAR
- Bespoke crocodile clips
- Filter function reduces noise interference for stability
- Tough hard case

PART NO  
KEW3125A



## Industrial CAT IV Clamp

- Fully featured Cat IV clamp meter
- True RMS
- Max Current 1000A AC/DC
- Max Voltage 600V AC/DC
- Min resolution 0.1A
- Jaw size 40mm
- Resistance (with buzzer)
- Data & Peak Hold, Min / Max
- Sleep function (can be overridden so that maximum demand over a two day period could be monitored)

PART NO  
KEW2056R





# DIMENSIONS & TECHNICAL • IP RATINGS CHART

## Protection against solid objects

<b>0</b>	No protection
<b>1</b>	Protection against a solid object up to 50mm such as a hand
<b>2</b>	Protection against a solid object up to 12.5mm such as a finger
<b>3</b>	Protection against a solid object up to 2.5mm such as a screwdriver
<b>4</b>	Protection against a solid object over 1mm such as a wire
<b>5</b>	Dust protected. Limited ingress of dust permitted. Will not interfere with operation of the equipment. Two to eight hours.
<b>6</b>	Dust tight. No ingress of dust. Two to eight hours

## Protection against liquids

<b>0</b>	No protection
<b>1</b>	Protected against vertically falling drops of water. Limited ingress permitted
<b>2</b>	Protected against vertically falling drops of water with enclosure tilted up to 15° from the vertical. Limited ingress permitted
<b>3</b>	Protected against sprays up to 60° from the vertical. Limited ingress permitted for three minutes
<b>4</b>	Protected against water splashed from all directions. Limited ingress permitted
<b>5</b>	Protected against low pressure jets of water from all directions. Limited ingress permitted
<b>6</b>	Water from heavy seas or water projected in powerful jets shall not enter the enclosures in harmful quantities
<b>7</b>	Protected against the effects of immersion in water between 15cm and 1m for 30 minutes
<b>8</b>	Protected against the effects of immersion in water under pressure for long periods

**IP**   
Ingress Protection





# DIMENSIONS & TECHNICAL • CARTRIDGE FUSE LINK COMPARISON CHART

The table shown is for information only and YESSS Industrial can not be held liable for any information there in.

EATON'S BUSSMANN SERIES	EE-GE- BUSSMANN SERIES RED SPOT 690V	BRUSH/ HAWKER	LAWSON	MEM	FLUVENT	REYROLLE IND ACCS	EMP	OLD GEC
C180	-	PTC	PL	-	-	-	-	-
C55	D5	C55	LA	LC	-	LA	-	Y-A
C1515/C1520	D15	C1515 / C1520	LC	LC	-	LC	-	Y-B
C3030	D30	C3030	LD	LC	-	LD	-	Y-C
C4545	D4545	C4545	LK	LCS	-	LK	-	Y-K
SMD	-	-	MD	-	-	MD	-	-
KR85	RH	RH	ME	RHD	R	CSK	LE / GPE-20E	Y-D
LR85	RHL	LR71 / LR85	MF	RL	CSG	-	-	Y-L
SSD	SS	DO4	SS	SS	-	RSS	MS	-
STD	LST	D19L	LST	LS	-	RLST	MSG	-
NITD	NIT	F21	NIT	SA2	FOBX	RIT	MNG	Y-PAX / Y-QAX
NSD	NS	F06	NS	SN2	F986	RS	MN	Y-PF / Y-QF
AAO	TIA	HO7	GTIA / TIA		FOMX	RIA	MANN	Y-RA
ESD	ES	ESD	MES	SP	-	-	-	-
BAO/OSD	TIS / OS	KO7	TIS	SB4 / SO	FOSX	RIS	MARW	Y-SA
AC/BC	TB	KO8	TB	SE3 / SE4	F754/M / F754/S	RB	MARC	Y-SB
AD/BD	TBC	KO9	TBC	SF4 / SF4	F755M / F755/S	RBC	MARL	Y-SBL
CEO	TCP	L14	TCP	SD5	FO1X / F763/MX / F763/SX	RCP	ENAA	Y-TA
CD	TC	LO9	TC	SF5	FB1	RC	EAA	Y-TB
DEO	TFP	M14	TFP	SD6	F763/2X	RFP	ENA	Y-VAD
DD	TF	MO9	TF	SF6	FB2	RF	EA	Y-VB
M13	84TF	M13	84TF	SW	-	-	EAS	Y-VAS
ED	TKF	NO9	TKF	SF7	FB3	RKF	EB	Y-WB
N15	84TK	N15	84TK	SW7	-	-	EJBS	Y-WAS
ED	TMF	PO9	TMF	SF8	FB4	RMF	EBC	Y-XBD
EFS	TKM	N11	TKM	SG7	F772/3	RKM	EBL	Y-WBL
EF	TM	P11	TM	SH8	F772/4	RM	EBCL	Y-XB
P12	TMT	P12	TMT	-	F781/4	-	EBCX	Y-XBL
P20	85TM	P20	85TM	SX8	-	-	EBCH	Y-XA
FF	TTM	R11	TTM	SH9	FB6	RTM	EC	Y-YB
FG	TT	R12	TT	SY9	F781/6	-	ECW	Y-YBL / Y-ZB
R20	86TT	R20 / S20	86TT	SX9	-	-	ECH	Y-YA
GF	TLM	S11	TLM	SH10	FB6 / F851/8	RLM	EDN	Y-ZBD
GG	TLT	S12	TLT	SY10	F781/8	-	ED	Y-ZB
MJ29	JH / 96TY	MJ26 / MJ29	JHU	JW6 / JWS6	DL1-2 / DL1-3	-	1/EJA / 1S/EJA	-
MJ30/PJ30	JP / 95TP / 95TJ / 171TN	MJ27 / MJ30 / PJ30	JPU	JX6 / JX7 / JX8 / JXS6 / JXS7 / JXS8	DL2-2 / DL2-3 / DL2-4 / DL2-6	-	2/EJA / 2/EJB / 2S/EJA / 2S/EJB	-
MJ28/PJ28 / SJ28/MJ31 / PJ31/SJ31	JS / 385TJ / 386TN / 387TW	MJ28 / PJ28 / SJ28 / MJ31 / PJ31 / SJ31	JSU	JY7 / JY8 / JY10 / JYS7 / JYS8	DL3-2 / DL3-3 / DL3-4 / DL3-6 / DL3-8 / JYS10	-		-
MJ25	FHLA	MJ25	JF	-	-	-	-	-

**DUTY CATEGORY INFORMATION TABLE**

CURRENT	CATEGORY	TYPICAL APPLICATIONS	RELEVANT IEC PRODUCT STANDARD
AC	AC-1	Non-inductive or slightly inductive loads, resistance furnaces.	947-4
	AC-3	Squirrel-cage motors: Starting, switching off motors during running.	947-3
	AC-15	Control of AC electromagnetic Loads.	947-5-1
	AC-21	Switching of resistive loads, including moderate overloads.	947-3
	AC-22	Switching of mixed resistive & inductive loads.	947-3
	AC-23	Switching of motor loads or other highly inductive loads.	947-3
DC	DC-1	Non-inductive or slightly inductive loads, resistance furnaces.	947-4
	DC-13	Control of DC electromagnets	947-5-1

**ERSA & ERSF RANGE CONTACTOR COMPARISON CHART**

ERS CONTACTORS	AC-3 Amps	AC-3 kW 415V	AEG	GE	Sprecher & Schuh	ABB	Square 'D'	Siemens Old No.	Lovato	Schneider Electric	Tian Teco	Moeller Electric
ERSA-0910	9.0	4.0	LS4	CL00A310T	CA3-9	A9-30	PD2	3TF30	BF9	LC1-D09	CN6	DIL00M10
ERSA-1210	12.0	5.5	LS7	CL01A310T	CA3-12	A12-30	PD3	3TF31	BF12	LC1-D12	CN11	DIL00AM10
ERSA-1810	18.0	9	LS17	CL02A310T	CA3-16	A16-30	PE4	3TF32	BF16	LC1-D18	CN16	DIL0M+11DILM
ERSA-2510	25.0	11.0	LS27	CL25A310M	CA3-23	A25-30	PE5	3TF33	BF25	LC1-D25	CN18	DIL0AM+11DILM
ERSA-3210	32.0	15.0	LS37	CL04A310M	CA3-30	A30-30	PF1	3TF34	BF32	LC1-D32	CN25	DIL1M+11DILM
ERSA-4011	40.0	22.0	LS47	CL45A300M	CA3-37	A40-30	-	3TF35	BF38	LC1-D40	CN35	DIL1AM+11DILM
ERSA-5011	50.0	25.0	LS47	CL06A311M	-	A50-30	PF3	3TF46	BF50	LC1-D50	CN50	DIL2M+11DILM
ERSA-6511	65.0	37.0	LS77	CL07A311M	CA3-60	A63-30	PG3	3TF47	BF65	LC1-D65	CN65	DIL2AM+11DILM
ERSA-8011	80.0	45.0	LS107	CL08A311M	CA6-85	A80-30	PJ1	3TF48	BF80	LC1-D80	-	DIL3M-22
ERSA-9511	95.0	45.0	LS107	CL08A311M	-	A95-30	PJ1	3TF49	BF95	LC1-D95	CN100	DIL3AM-22
ERSF-115A	115.0	59.0	LS107	CL10A311M	CA1-60	A110-30	PJ3	3TF50	BF115	LC1-F115	CN125	DIL4M-22
ERSF-150A	150.0	80.0	LS177	CK75CA311	CA1-100	EH145-30	PJ5	3TF51	B145	LC1-F150	CN150	DIL4AM-22
ERSF-185A	185.0	100.0	LS177	CK08CA311	CA1-150	EH175-30	PK1	3TF52	B180	LC1-F185	CN180	DIL6M-22
ERSF-225A	225.0	110.0	LS247	CK85BA311	CA1-250	EH250-30	PK3	3TF54	-	LC1-F225	CN220	-
ERSF-265A	265.0	140.0	LS307	CK09BE311	CA1-250	EH250-30	-	3TF55	B250	LC1-F265	CN300	DIL6AM-22
ERSF-330A	330.0	180.0	LS307	CK95BE311	CA1-480	EH250-30	DLS451	3TF55	-	LC1-F330	-	-
ERSF-400A	400.0	200.0	LS407	CK10BE311	CA1-480	EH370-30	DLS451	3TF56	-	LC1-F400	-	DIL8AM-22
ERSF-500A	500.0	220.0	LS507	CK10BE311	CA1-480	EH370-30	DLS451	3TF56	B400	LC1-F500	-	DIL10AM-22
ERSF-630A	630.0	355.0	LS637	CK12BE311	CA1-480	EH700-30	DLS651	3TF68	B630	LC1-F630	-	DIL12AM-44

\* This comparison chart is for guidance only and we do not guarantee identical performance for the comparative types shown

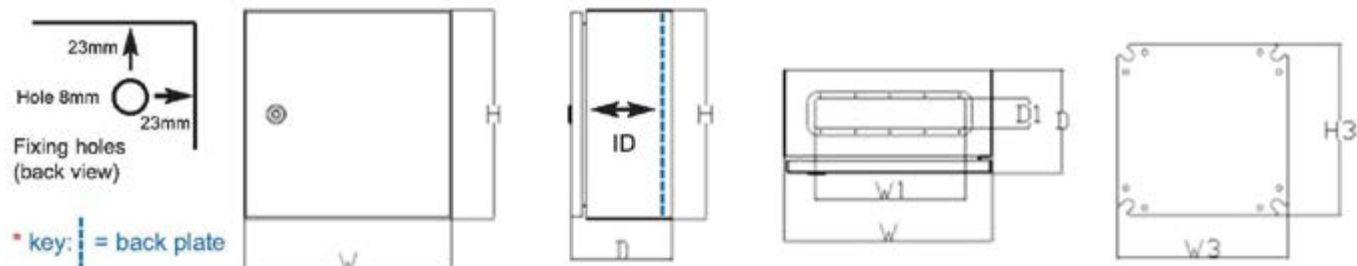
**MOTOR CURRENT SELECTION TABLE**

THREE PHASE MOTOR APPROXIMATE FULL LOAD CURRENT AT LINE VOLTAGE							
				MOTOR RATING			
220V	240V	380V	415V	550V	KW	HP	
-	-	-	-	-	0.07	1/12	
0.7	0.6	0.4	0.4	0.3	0.1	1/8	
1	0.9	0.5	0.5	0.3	0.12	1/6	
1.3	1.2	0.8	0.7	0.4	0.18	1/4	
1.6	1.5	0.9	0.9	0.6	0.25	1/3	
2.5	2.3	1.4	1.3	0.8	0.37	1/2	
3.1	2.8	1.8	1.6	1.1	0.56	3/4	
3.5	3.2	2	1.8	1.4	0.75	1	
5	4.5	2.8	2.6	1.9	1.1	1.5	
6.4	5.8	3.7	3.4	2.6	1.5	2	
9.5	8.7	5.5	5	3.5	2.2	3	
12	11	7	6.5	4.7	3	4	
15	13	8	8	6	3.7	5	
16	14	9	8	6	4	5.5	
20	19	12	11	8	5.5	7.5	
27	25	16	15	11	7.5	10	
34	32	20	18	14	9.3	12.5	
37	34	22	20	15	10	13.5	
41	37	23	22	16	11	15	
64	50	31	28	21	15	20	
67	62	39	36	26	18.5	25	
74	70	43	39	30	22	30	

# DIMENSIONS & TECHNICAL • STEEL & STAINLESS ENCLOSURES

PART NUMBER	EXTERNAL DIMENSIONS			INTERNAL DEPTH	GLAND PLATE HOLE		MOUNTING PLATE		OTHER INFORMATION (GPTB = GLAND PLATE TOP AND BOTTOM)
	H (mm)	W (mm)	D (mm)	ID	W1 (mm)	D1 (mm)	W3 (mm)	H3 (mm)	
ERS302515	300	250	150	125	130	62	195	245	1 LOCK, GPTB
ERS303015	300	300	150	125	180	62	245	245	1 LOCK, GPTB
ERS303020	300	300	200	175	180	62	245	245	1 LOCK, GPTB
ERS304020	300	400	200	175	215	62	345	245	1 LOCK, GPTB
ERS403015	400	300	150	125	180	62	245	345	1 LOCK, GPTB
ERS403020	400	300	200	175	180	62	245	345	1 LOCK, GPTB
ERS403025	400	300	250	225	180	62	245	350	1 LOCK, GPTB
ERS404015	400	400	150	125	215	62	345	345	1 LOCK, GPTB
ERS404020	400	400	200	175	216	62	345	345	1 LOCK, GPTB
ERS405020	400	500	200	175	415	120	445	345	1 LOCK, GPTB
ERS406020	400	600	200	175	425	120	545	345	1 LOCK, GPTB
ERS406030	400	600	300	275	415	120	545	345	1 LOCK, GPTB
ERS504020	500	400	200	175	317	120	345	445	2 LOCK, GPTB
ERS504025	500	400	250	225	317	120	345	445	2 LOCK, GPTB
ERS505025	500	500	250	225	415	120	454	450	2 LOCK, GPTB
ERS604020	600	400	200	175	317	120	345	545	2 LOCKS, GPTB
ERS604030	600	400	300	275	317	120	345	545	2 LOCKS, GPTB
ERS604040	600	400	400	360	317	120	345	545	2 LOCKS, GPTB
ERS605020	600	500	200	175	415	120	445	545	2 LOCKS, GPTB
ERS605025	600	500	250	225	415	120	445	545	2 LOCKS, GPTB
ERS605030	600	500	300	275	415	120	445	545	2 LOCKS, GPTB
ERS606020	600	600	200	175	415	120	540	540	2 LOCKS, GPTB
ERS606025	600	600	250	225	415	120	540	540	2 LOCKS, GPTB
ERS705020	700	500	200	175	415	120	640	440	2 LOCKS, GPTB
ERS705025	700	500	250	225	415	120	640	440	2 LOCKS, GPTB
ERS705030	700	500	300	275	415	120	640	440	2 LOCKS, GPTB
ERS804030	800	400	300	275	317	120	345	740	2 LOCKS, GLTB
ERS806020	800	600	200	175	415	120	540	740	2 LOCKS, GPTB
ERS806030	800	600	300	275	415	120	540	740	2 LOCKS, GPTB
ERS806040	800	600	400	360	415	120	540	740	2 LOCKS, GPTB
ERS1006030	1000	600	300	275	415	120	540	940	2 LOCKS, GPTB
ERS1008030	1000	800	300	275	315	120	730	940	2 LOCKS, 4 GLAND PLATES (2 TOP / 2 BOTTOM)
ERS1008040	1000	800	400	360	315	120	730	940	2 LOCKS, 4 GLAND PLATES (2 TOP / 2 BOTTOM)
ERS1206030	1200	600	300	275	315	120	540	1135	3 LOCKS, 4 GLAND PLATES (2 TOP / 2 BOTTOM)
ERS1208030	1200	800	300	275	315	120	730	1135	3 LOCKS, 4 GLAND PLATES (2 TOP / 2 BOTTOM)
ERS1208040	1200	800	400	360	315	120	730	1135	3 LOCKS, 4 GLAND PLATES (2 TOP / 2 BOTTOM)
ERS12010030	1200	1000	300	275	315	120	730	1135	3 LOCKS, 4 GLAND PLATES (2 TOP / 2 BOTTOM)

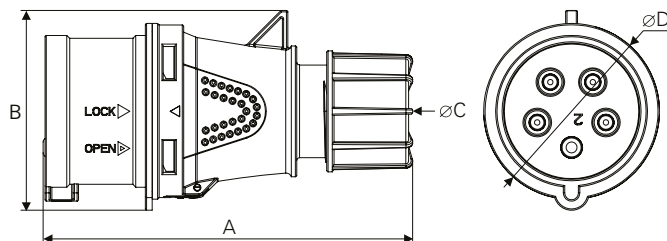
ERS302015S	300	200	150	130			145	160	1 LOCK, NO GLANDPLATE
ERS303015S	300	300	150	130			245	250	1 LOCK, NO GLANDPLATE
ERS403020S	400	300	200	180			245	350	1 LOCK, NO GLANDPLATE
ERS404020S	400	400	200	180			345	350	1 LOCK, NO GLANDPLATE
ERS504020S	500	400	200	180			345	450	1 LOCK, NO GLANDPLATE
ERS604020S	600	400	200	180			340	540	2 LOCKS, NO GLANDPLATE
ERS606020S	600	600	200	180			545	550	2 LOCKS, NO GLANDPLATE
ERS806030S	800	600	300	285			545	745	2 LOCKS, NO GLANDPLATE
ERS808030S	800	800	300	285			745	745	2 LOCKS, NO GLANDPLATE





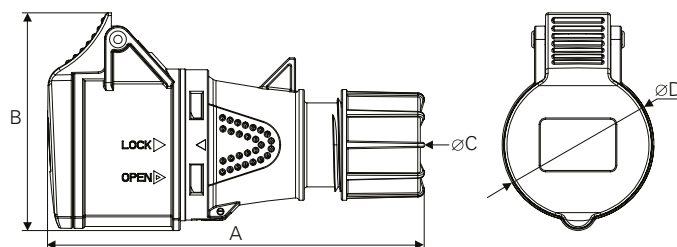
## IP44 Industrial Plugs 16A-32A

CURRENT	16A			32A		
POLE	3	4	5	3	4	5
A (mm)	124	133	136	153.5	153.5	159.5
B (mm)	58	65.5	73.5	78	78	82.5
C (mm)	15.5	15.5	17	22	22	22
D (mm)	51	58.5	64.5	66.5	66.5	74
CABLE SIZE (mm <sup>2</sup> )	1~2.5			2.5~6		



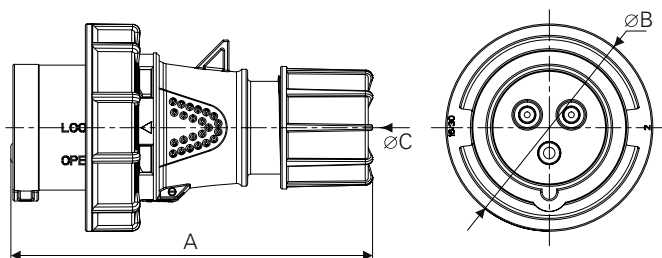
## IP44 Industrial Connectors 16A-32A

CURRENT	16A			32A		
POLE	3	4	5	3	4	5
A (mm)	135	143	147	167	167	173
B (mm)	77	82.6	90	95.5	95.5	101
C (mm)	15.5	15.5	17	22	22	22
D (mm)	51	57.6	64.5	66.5	66.5	72
CABLE SIZE (mm <sup>2</sup> )	1~2.5			2.5~6		



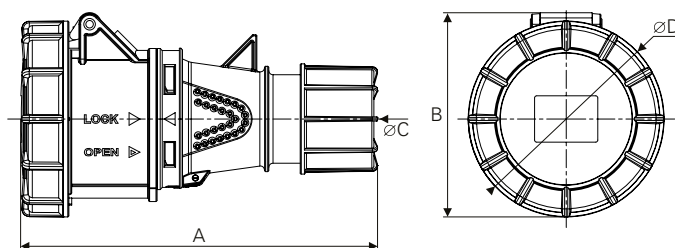
## IP67 Industrial Plugs 16A-32A

CURRENT	16A			32A		
POLE	3	4	5	3	4	5
A (mm)	124	133	136	153.5	153.5	159.5
B (mm)	71	79	87	93	93	100.5
C (mm)	15.5	15.5	17	22	22	22
CABLE SIZE (mm <sup>2</sup> )	1~2.5			2.5~6		



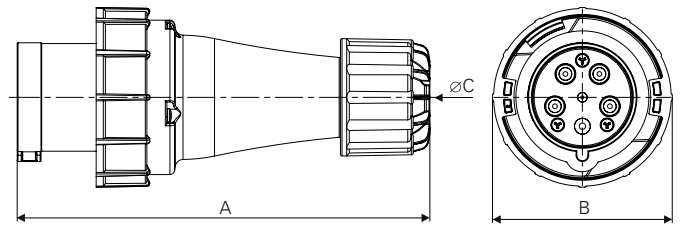
## IP67 Industrial Connectors 16A-32A

CURRENT	16A			32A		
POLE	3	4	5	3	4	5
A (mm)	138	146	151	170	170	176
B (mm)	78.5	85	93	97	97	104
C (mm)	15.5	15.5	17	22	22	22
D (mm)	71	79	87	93	93	100.50
CABLE SIZE (mm <sup>2</sup> )	1~2.5			2.5~6		



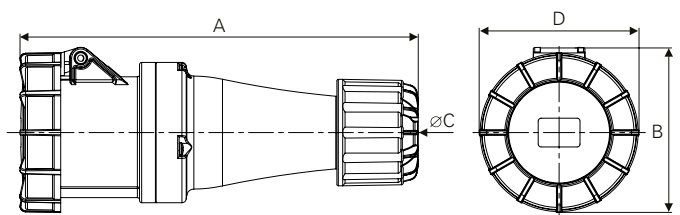
## IP67 Industrial Plugs 63A-125A

CURRENT	63A			125A		
POLE	3	4	5	3	4	5
A (mm)	260	260	260	301	301	301
B (mm)	113.5	113.5	113.5	126	126	126
C (mm)	32	32	32	45	45	45
CABLE SIZE (mm <sup>2</sup> )	6~16			16~50		



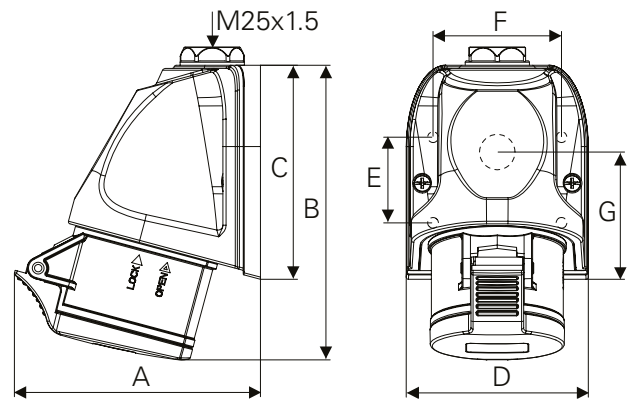
## IP67 Industrial Connectors 63A-125A

CURRENT	63A			125A		
POLE	3	4	5	3	4	5
A (mm)	260	260	260	319	319	319
B (mm)	113.5	113.5	113.5	130	130	130
C (mm)	32	32	32	45	45	45
D (mm)	111	111	111	127	127	127
CABLE SIZE (mm <sup>2</sup> )	6~16			16~50		



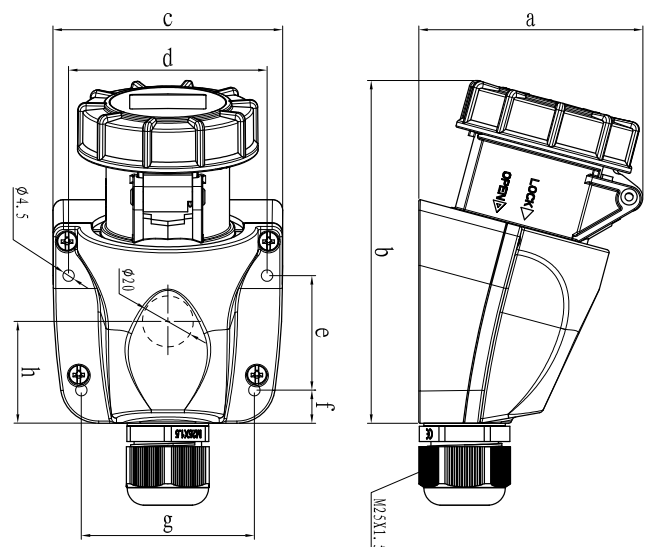
## IP44 Industrial Surface Sockets 16A-32A

CURRENT	16A			32A		
POLE	3	4	5	3	4	5
A (mm)	98	96.5	115	116	116	118
B (mm)	124	125.5	138	149	149	151
C (mm)	86	86	100	100	100	100
D (mm)	74.5	74.5	85	85	85	85
E (mm)	36	36	40	40	40	40
F (mm)	52	52	60	60	60	60
G (mm)	49	49	60	60	60	60
CABLE SIZE (mm <sup>2</sup> )	1.5~4			2.5~10		



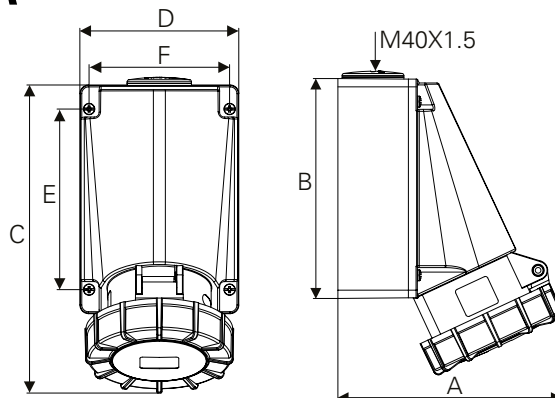
## IP67 Industrial Surface Sockets 16A-32A

CURRENT	16A			32A		
POLE	3	4	5	3	4	5
A (mm)	88	90.5	108.5	114	114	118
B (mm)	135	136	145.5	156.5	156.5	158
C (mm)	90.5	90.5	105	105	105	105
D (mm)	78	78	92	92	92	92
E (mm)	45	45	43	43	43	43
F (mm)	13	13	23	23	23	23
G (mm)	68	68	78	78	78	78
H (mm)	40	40	45	45	45	45
CABLE SIZE (mm <sup>2</sup> )	1.5~4			2.5~10		



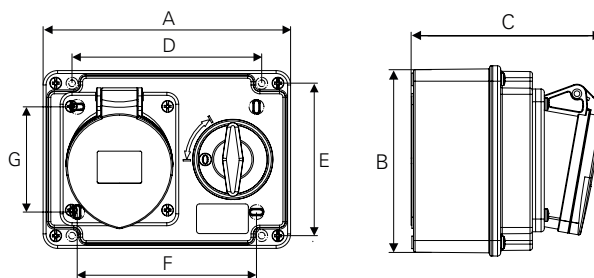
## IP67 Industrial Surface Sockets 63A-125A

CURRENT	63A			125A		
POLE	3	4	5	3	4	5
A (mm)	171	171	171	165	165	165
B (mm)	170	170	170	230	230	230
C (mm)	230	230	230	330	330	330
D (mm)	118	118	118	160	160	160
E (mm)	135	135	135	240	240	240
F (mm)	105	105	105	160	160	160
CABLE SIZE (mm <sup>2</sup> )	6~25			25~70		



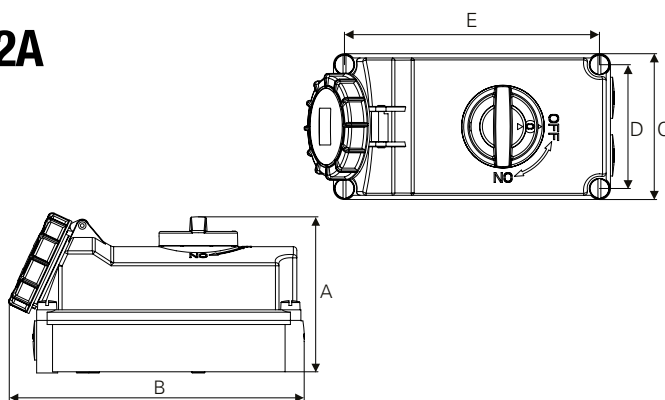
## IP44 Horizontal Switch Sockets 16A-32A

CURRENT	16A			32A		
POLE	3	4	5	3	4	5
A (mm)	167	167	167	167	167	167
B (mm)	120	120	170	120	120	120
C (mm)	108	111.5	112	118	118	120.5
D (mm)	128	128	128	128	128	128
E (mm)	102.8	102.8	102.8	102.8	102.8	102.8
F (mm)	121	121	121	121	121	121
G (mm)	71	71	71	71	71	71
CABLE SIZE (mm <sup>2</sup> )	1.5~4			2.5~10		



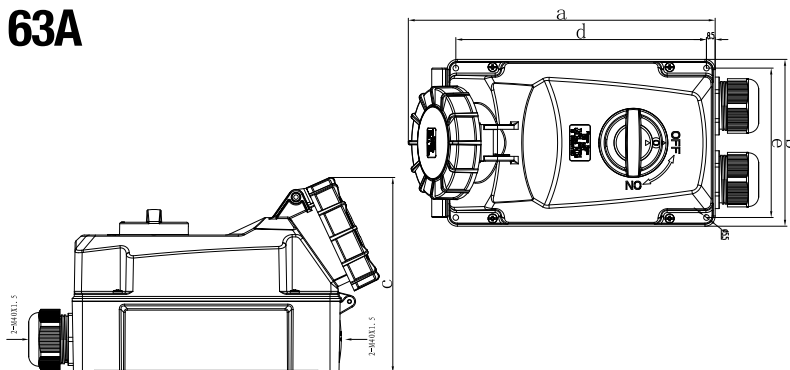
## IP67 Vertical Switch Sockets 16A-32A

CURRENT	16A		32A	
POLE	3	5	3	5
A (mm)	135.8	135.8	142.5	147
B (mm)	248	248	256.5	256.5
C (mm)	119	119	119	119
D (mm)	101	101	101	101
E (mm)	208	208	208	208
CABLE SIZE (mm <sup>2</sup> )	1.5~4		2.5~10	



## IP67 Vertical Switch Sockets 63A

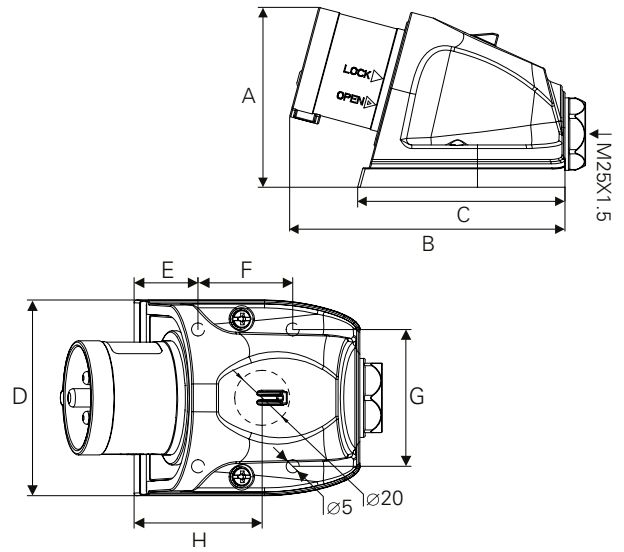
CURRENT	63A		
POLE	3	4	5
A (mm)	300	300	300
B (mm)	163	163	163
C (mm)	191	191	191
D (mm)	245	245	245
E (mm)	146	146	146
CABLE SIZE (mm <sup>2</sup> )	6~25		





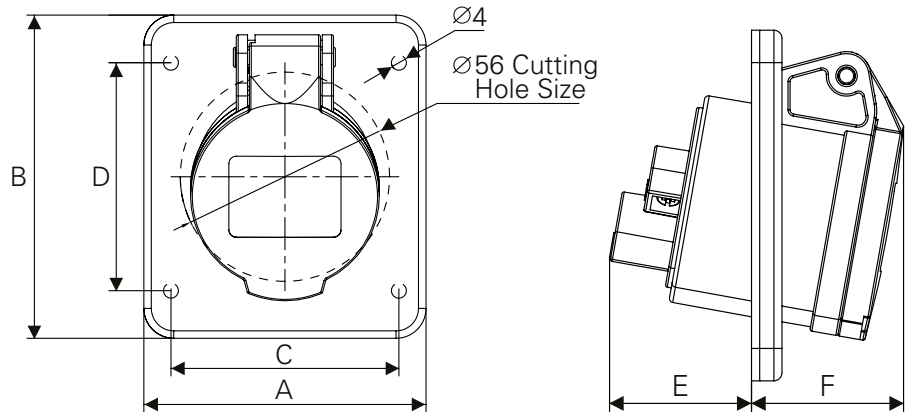
## IP44 Surface Appliance Inlet 16A-32A

CURRENT	16A			32A			
	POLE	3	4	5	3	4	5
A (mm)		74.5	75	92.5	91.5	91.5	94.5
B (mm)		114	118	130	140	140	141
C (mm)		86	86	100	100	100	100
D (mm)		74.5	74.5	85	85	85	85
E (mm)		24.5	24.5	26.5	26.5	26.5	26.5
F (mm)		36	36	40	40	40	40
G (mm)		52	52	60	60	60	60
H (mm)		49	49	59.5	59.5	59.5	59.5
CABLE SIZE (mm <sup>2</sup> )		1.5~4			2.5~10		



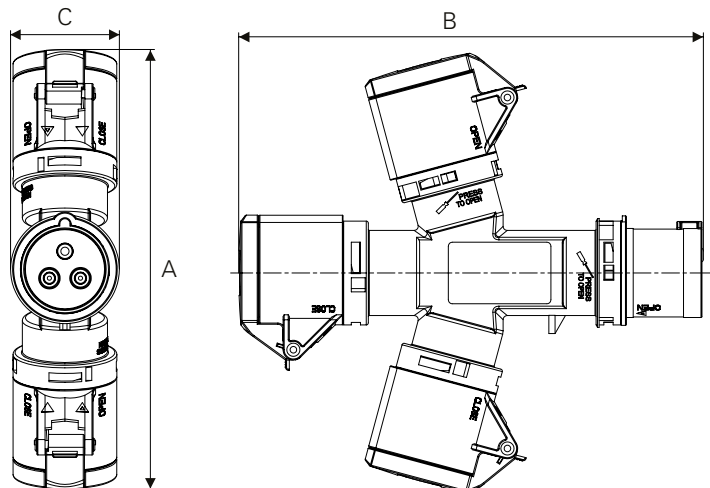
## IP44 Panel Socket Angled 16A

CURRENT	16A
POLE	3
A (mm)	75.5
B (mm)	86.5
C (mm)	61
D (mm)	61
E (mm)	36
F (mm)	37
G (mm)	57.5
H (mm)	-
I (mm)	-
R (mm)	-
R (mm)	-
CABLE SIZE (mm <sup>2</sup> )	1.5~4



## IP44 3 Way Splitters 16A

CURRENT	16A
POLE	3
A (mm)	213.5
B (mm)	215.5
C (mm)	53.5
CABLE SIZE (mm <sup>2</sup> )	-



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