DBI CERTIFICATION

CERTIFICATE OF CONSTANCY OF PERFORMANCE

Issued by DBI Certification, notified body No. 2531.

In compliance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction product

V-430-S, V-530-S, V-430-VADW, V-530-VADW, V-430-S-VADW, V-530-S-VADW, V-430-SP, V-530-SP, V-430-SP-VADW, V-530-SP-VADW, V-430-SP-VADR,V-530-SP-VADR, V-430-S-VADR, V-530-S-VADR, V-430-VADR, V-530-VADR, V-430, V-530, V-530-EXIA, V-530-EXIC, V-430-S-CO, V-530-S-CO

The product fulfils the essential characteristic:

See Annex 1

Intended use: Applications related to automatic fire alarm systems

Placed on the market under the name or trade mark of:

Autronica Fire and Security AS
Bromstadvegen 59
NO-7047 Trondheim
Norway

and produced in the manufacturing plant:

CPA10058

This attests that all provisions concerning the performance described in Annex ZA of the standard(s)

EN 54-3:2001/A1:2002/A2:2006	:	**Fire detection and fire alarm systems - Part 3: Fire alarm devices - Sounders**
EN 54-5:2017/A1:2018	:	**Fire detection and fire alarm systems - Part 5: Heat detectors - point heat detectors**
EN 54-7:2018	:	**Fire detection and fire alarm systems - Part 7: Smoke detectors - Point smoke detectors that operate using scattered light, transmitted light or ionization**
EN 54-23:2010	:	**Fire detection and fire alarm systems - Part 23: Fire alarm devices - Visual alarm devices**

under system 1 for the performance set out in this certificate are applied and that the factory production control conducted by the manufacturer is assessed to ensure the

CONSTANCY OF PERFORMANCE OF THE CONSTRUCTION PRODUCT.

This certificate was first issued on 2022-07-07 and will remain valid as long as neither the harmonised standard, the construction product, the AVCP methods nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified product certification body.

The attached annexes form part of this certificate.

Date of issue: **2024-10-30**

(This certificate supersedes the previous version of this certificate issued 2022-07-07)

Merete Poulsen
Responsible for evaluation

Chris Ellis
Responsible for certification decision

Annex 1

EXTENT

Model	Description	Product compliant with standard
V-430-S	Multicriteria Detector with Sounder	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018
V-530-S	Multicriteria Detector SIL2 with Sounder	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018
V-430-VADW	Multicriteria Detector with White Beacon	EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-530-VADW	Multicriteria Detector SIL2 with White Beacon	EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-430-S-VADW	Multicriteria Detector with Sounder and White Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-530-S-VADW	Multicriteria SIL2 Detector with Sounder and White Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-430-SP	Multicriteria Detector with Speech	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018
V-530-SP	Multicriteria Detector SIL2 with Speech	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018
V-430-SP-VADW	Multicriteria Detector with Speech and White Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-530-SP-VADW	Multicriteria Detector SIL2 with Speech and White Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-430-SP-VADR	Multicriteria Detector with Sounder and Red Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-530-SP-VADR	Multicriteria Detector SIL2 with Sounder and Red Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-430-S-VADR	Multicriteria Detector with Sounder and Red Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-530-S-VADR	Multicriteria Detector SIL2 with Sounder and Red Beacon	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-430-VADR	Multicriteria Detector with Red Beacon	EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010

V-530-VADR	Multicriteria Detector SIL2 with Red Beacon	EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-430	Multicriteria Detector	EN 54-5:2017/A1:2018 EN 54-7:2018 EN 54-23:2010
V-530	Multicriteria Detector SIL2	EN 54-5:2017/A1:2018 EN 54-7:2018
V-530-EXIA	Multicriteria Detector SIL2 Ex ia	EN 54-5:2017/A1:2018 EN 54-7:2018
V-530-EXIC	Multicriteria Detector SIL2 Ex ic	EN 54-5:2017/A1:2018 EN 54-7:2018
V-430-S-CO	Combined smoke and heat detector with sounder and CO sensor	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018
V-530-S-CO	Combined smoke and heat detector with sounder and CO sensor	EN 54-3:2001/A1:2002/A2:2006 EN 54-5:2017/A1:2018 EN 54-7:2018

Full model codes are defined by the formats **V-430-xxxxx-yy/ww/zz** and **V-530-xxxxx-yy/ww/zz** where:
xxxxx = Model as listed in the table above
S, VADW, VADR, S-VADR, SP-VADW, SP-VADR, EXIA, EXIC
yy = Color of housing
Blank = White, BK = Black, CC = Customized Colour
ww = Enabled options
Blank = None, CD = Cover Detection & Self Varify, HS = Extra High Sensitivity*, DS = Data Subscription, CFxxx = Custom Features (C = A to Z, F = A to Z, xxx = 000 to 999)
* Note that when the HS = Extra High Sensitivity setting is used, the product is not compliant with EN 54-7:2018. Refer to the manufacturer's documentation.
* Note, the CO function cannot be certified since there is no harmonised standards under the CPR.

Bases:
V-100 BASE
V-110 BASE SIL2
V-120 BASE SIL2 Ex
Note these bases are Certified under 2531-CPR-CSP11293.

Operating Voltage:
10 to 27 V DC

EN 54-7:2018 Sensivity Classes configurable (panel/confirguration tool)

Sensivity Class	Description
High	Clean environments, for example laboratories, data rooms etc.
Medium	Normal environments, for example offices and hospitals etc.
Low	Industrial environments, for example factories and warehouses etc.

EN 54-3:2001/A1:2002/A2:2006 Approved Tone Settings
All applicable models indentified above are approved for use with the following tones at maximum volume setting only:

Tone Setting	Tone Description
Tone 1	Continuous 915Hz
Tone 2	Dutch Slow Whoop 500-1200Hz
Tone 3	Alternating 730 & 915Hz (2Hz cycle)
Tone 4	Continuous 3650Hz
Tone 5	Whoop 800-970Hz
Tone 6	DIN tone 1200-500Hz sweep (1Hz)

EN 54-23:2010 Coverage Volumes

Model	Setting	Coverage
V430-S-VADR	High	C-3-8
	Medium	C-3-8
	Low	C-3-5
	Open	O-2.5-4
V-430-VADR (Black Lid)		C-3-9
V-430-VADW	High	C-3-12
	Medium	C-3-9
	Low	C-3-6
	Open	O-2.5-4

Heat Response Catergory:
For detector categories with the suffix S or R, additional requirements are needed see 4.4.1 or 4.4.2

Detector Category (Heat Class):	Typical Application Temperature	Maximum Application Temperature °C	Minimum Static Response Temperature °C	Maximum Static Response Temperature °C
A1	25	50	54	65
A1R	25	50	54	65
A1S	25	50	54	65
A2S	25	50	54	70
B	40	65	69	85
C	55	80	84	100

Response time limits:

Rate of rise of air temperature K min-1	Cat A1, A1R, A1S			
	Lower limit		Uper limit	
	Min	S	Min	S
1	29	0	40	20
3	7	13	13	40
5	4	9	8	20
10	1	0	4	20
20		30	2	20
30		20	1	40

Rate of rise of air temperature K min-1	Cat A2S, B, C			
	Lower limit		Uper limit	
	Min	S	Min	S
1	29	0	46	0
3	7	13	16	0
5	4	9	10	0
10	2	0	5	30
20	1	30	3	13

DBI CERTIFICATION

30		40	2	25

Performance

Essential characteristics	Clauses in EN 54-3:2001	Performance
Performance under fire conditions	4.2, 4.3, 5.2, 5.3	Pass
Operational reliability	4.4, 4.5, 4.6, 5.4	Pass
Durability of operational reliability and response delay; temperature resistance	5.5, 5.7, 5.8, 5.9	Pass
Durability of operational reliability; humidity resistance	5.8, 5.9	Pass
Durability of operational reliability; corrosion resistance	5.11	Pass
Durability of operational reliability; vibration resistance	5.12 to 5.15	Pass
Durability of operational reliability; electrical stability	5.16	Pass
Durability of operational reliability; resistance to ingress	5.17	Pass
5.16 applies only to sounders or voice sounders with active electronic components		

Essential characteristics	Clauses in EN 54-5:2017/ A1:2018	Regulatory classes	Performance
Operational reliability:		A1, A1R, A1S, A2S, B, C	
Position of heat sensitive element	4.2.1		The heat sensitive element(s) or at least part of it, except elements with auxiliary functions (e.g.characteristic correctors), are a distance ≥15mm from the mounting surface of the point heat detector.
Individual alarm indication	4.2.2		Category A1, A1R, A1S, A2S, B, C The heat detector is provided with an integral red visual indicator and can remain identified until the alarm is reset. The visual indicator is visible from a distance of 6 m directly below the point heat detector,in an ambient light intensity up to 500 lx.
Connection of ancillary devices	4.2.3		Open or short circuit failures of connection to ancillary device do not prevent the correct operation of the detector
Monitoring of detachable point heat detectors	4.2.4		A fault condition is signaled when the detector is removed from the mounting base.
Manufacturer's adjustments	4.2.5		It is not possible to change the maufacture´s settings expept by special means (e.g. a special code or tool, or by breaking or remove a seal).
Onsite adjustments of response behavior	4.2.6		a)The detector is provided with a provision for an onsite adjustment of the response behavior and the manufacturer declares a corresponding class and adjustment setting: Special code or tool (AS2000 software) is required to change manufacturer's adjustments
Software controlled detectors (when provided)	4.2.7		The software documentation and the software design complies supplied by the manufacturer with the requirements of this standard.
Nominal activation conditions/Sensitivity:			

<table>
<tr><td>Directional dependence</td><td>4.3.1</td><td></td><td>The response time of the point dectetor do not unduly depend on the direction of airflow around the point heat detector.</td></tr>
<tr><td>Static response temperature</td><td>4.3.2</td><td></td><td>The response temperatures of the point heat detectors lie between the minimum and maximum static response temperatures, according to the category of the point heat detector in Table 1 above.</td></tr>
<tr><td>Response times from typical application temperature</td><td>4.3.3</td><td></td><td>The response times of the point heat detector lie between the lower and upper response time limits for the appropriate point heat detector category in Table 2 above.</td></tr>
<tr><td>Response times from 25 °C</td><td>4.3.4</td><td></td><td>The response time at 3 K min^{-1} exceeds 7 min 13 s and the response time at 20 K min^{-1} exceeds 1 min 0 s.</td></tr>
<tr><td>Response times from high ambient temperature</td><td>4.3.5</td><td></td><td>No alarm or fault signal was given at high ambient temperatures appropriate to the anticipated service temepratures.
A1
3 K min^{-1} , Lower limit, 1 min 20 s and upper limit 13 m 40 s.
20 K min^{-1} , Lower limit, 12 s and upper limit 2 m 20 s.

A2, B, C
3 K min^{-1} , Lower limit, 1 min 20 s and upper limit 16 m.
20 K min^{-1} , Lower limit, 12 s and upper limit 3 m 13 s.</td></tr>
<tr><td>Reproducibility</td><td>4.3.6</td><td></td><td>The response times of the point heat detectors lie between the lower ad upper response time limits specified in Table 2 above.</td></tr>
<tr><td>Response delay (response time):</td><td></td><td></td><td></td></tr>
<tr><td>Additional test for suffix S point heat detectors</td><td>4.4.1</td><td></td><td>Suffix S point heat detector did not exceed the lower limits of response time during the transer period or during the 10 min exposure below.
<table>
<tr><td>Point heat detector category</td><td>Conditioning Temperature °C</td><td>Airflow Temperature °C</td></tr>
<tr><td>A1S</td><td>5 ±2</td><td>50 ±2</td></tr>
<tr><td>A2S</td><td>5 ±2</td><td>50 ±2</td></tr>
</table>
<table>
<tr><td rowspan="2">Rate of rise of air temperature K min^{-1}</td><td colspan="2">Lower Limit response time</td></tr>
<tr><td>Min</td><td>S</td></tr>
<tr><td>3</td><td>9</td><td>40</td></tr>
<tr><td>5</td><td>5</td><td>48</td></tr>
<tr><td>10</td><td>2</td><td>54</td></tr>
<tr><td>20</td><td>1</td><td>27</td></tr>
<tr><td>30</td><td></td><td>58</td></tr>
</table></td></tr>
</table>

Additional test for suffix R point heat detectors	4.4.2		Suffix R, the point heat detector maintains the response requirements of its category, in table 2 above, for high rates of rise of temperature from an initial temperature below the typical application temperature applicable to the category marked on it. Point heat detector category: A1R — Initial conditioning temperature °C: 5 ±2
Tolerance to supply voltage:			
Variation in supply parameters	4.5		The point heat detector does not unduly depent on variation in the supply parameters and lie between the lower and upper response time limits specified in Table 2 above.
Durability of nominal activation conditions/Sensitivity:			
temperature resistance			
Cold (operational)	4.6.1.1		No alarm or fault signal was given during the transition to the conditioning temperature or during the period at the condition temperature For resettable point heat detector Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Dry heat (endurance)	4.6.1.2		No fault signal was given on reconnection attributable to the endurance conditioning Point heat detector category: C — Conditioning Temperature °C: 80 ±2 Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Humidity resistance			
Damp heat, cyclic (operational)	4.6.2.1		No alarm or fault signal was given during the conditioning. Lower temperature: (25±3) °C Upper temperature: (40±2) °C Relative humidity:

			At lower temperature :≥ 95 % At upper temperature : (93 ±3) % Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Damp heat, steady-state (endurance)	4.6.2.2		No fault signal was given on reconnection attributable to the endurance conditioning. Conditioning Temperature : 40 ±2 °C Relative Humidity: 93 ±3 % Duration : 21 days Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Corrosion resistance			
Sulphur dioxide (SO_2) corrosion (endurance)	4.6.3		No fault signal was given on reconnection attributable to the endurance conditioning. Conditioning Temperature : 25 ±2 °C Relative Humidity: 93 ±3 % SO2 concentration: 25 ±5 ppm (by volume) Duration : 21 days Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Vibration resistance			
Shock (operational)	4.6.4.1		No alarm or fault signal was given during the conditioning period or an additional 2 min. For specimen with a mass ≤ 4,75 kg : Shock pulse type: Half sine Pulse duration : 6 ms Peak acceleration: 10X (100-20M) ms-2 (M is specimen mass in Kg) Number of directions: 6

			Pulses per direction: 3 Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Impact (operational)	4.6.4.2		No alarm or fault signal was given during the conditioning period or an additional 2 min. Conditioning: Impact energy: 1,9 ±0,1 J Hammer velocity: 1,5 ±0,13 ms^{-1} Number of impacts: 1 Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Vibration, sinusoidal (operational)	4.6.4.3		No fault signal was given during the conditioning Conditioning: Frequency range: 10 to 150 Hz Acceleration amplitude: 5 ms^{-2}(≈0,5 g_n) Number of axes : 3 Sweep rate: 1 octave min^{-1} Number of sweep cycles: 1 per axis Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Vibration, sinusoidal (endurance)	4.6.4.4		No fault signal was given on reconnection attributable to the endurance conditioning. Conditioning: Frequency range: 10 to 150 Hz Acceleration amplitude: 10 ms^{-2}(≈1,0 g_n) Number of axes : 3 Sweep rate: 1 octave min^{-1} Number of sweep cycles: 20 per axis Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6.

			A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6
Electrical stability EMC immunity (operational)	4.6.5		Compliance in EN 50130-4:2011 and No fault signal was given during the conditioning. Response time at 3 K min^{-1} was not less than 7 min 13 s and did not exceed 2 min 40 s compared with the time obtained in 4.3.6. A1: 20 K min^{-1} was not less than 30 s and did not exceed 30 s compared with the time obtained in 4.3.6 A2, B, C: 20 K min^{-1} was not less than 1 min and did not exceed 30 s compared with the time obtained in 4.3.6

Essential characteristics	**Clauses in EN 54-7:2018**	**Regulatory classes**	**Performance**
Operational reliability:			
Individual alarm indication	4.2.1		The visual indicator(s) are visible from a distance of 6 m in an ambient light intensity up to 500 lx.
Connection of ancillary devices	4.2.2		Open or short circuit failures of connection to ancillary device did not prevent the correct operation of the detector
Monitoring of detachable detectors	4.2.3		A fault condition is signaled when the detector is removed from the mounting base.
Manufacturer´s adjustments	4.2.4		It is not possible to adjust the detector settings without the use of a special tool to access into the detector or use of a code to enabling entry into the panel programming software.
On site adjustment of response behavior	4.2.5	None	The mode(s) of operation are adjustable from the Control and Indicating Equipment by use of a loop communication protocol. Access to enable mode changes is by software control of the protocol communication.
Protection against the ingress of foreign bodies	4.2.6		The chamber is designed so that a sphere of diameter (1,3±0,05) mm cannot pass into the sensor chamber.
Response to slowly developing fires	4.2.7		The provision of "drift compensation" (e.g. to compensate for sensor drift due to the build-up of dirt in the detector), does not lead to a significant reduction in the detectors sensitivity to slowly developing fires.
Software controlled detectors (when provided)	4.2.8		The software documentation and the software design

			complies with the requirements of EN 54-7:2018.
Nominal activation conditions/sensitivity:			
Repeatability	4.3.1		Ratio of response values $m_{max}:m_{min} \leq 1.6$ Lower response value, $m_{max}:m_{min} \geq 0.05$ dB m^{-1}
Directional dependence	4.3.2		Ratio of response values $m_{max}:m_{min} \leq 1.6$ Lower response value, $m_{max}:m_{min} \geq 0.05$ dB m^{-1}
Reproducibility	4.3.3		Ratio of response values $m_{max}:\overline{m} \leq 1.33$ Ratio of the response values $\overline{m}: m_{min} \leq 1.5$ Lower response value, $m_{min} \geq 0.05$ dB m^{-1}
Response delay (response time):			
Air movement	4.4.1		Ratio is > 0.0625 and < 1.60 and the point smoke detector did not emit a fault nor alarm signal during the test with aerosol-free air
Dazzling	4.4.2		The specimen did not emit neither an alarm nor a fault signal and Ratio of response thresholds $m_{max}:m_{min} \leq 1.6$
Tolerance to supply voltage:			
Variation in supply parameters	4.5	Threshold	Ratio of response values $m_{max}:m_{min} < 1.6$ Lower response value, $m_{min} \geq 0.05$ dB m^{-1}
Performance parameters under fire conditions:			
Fire sensitivity	4.6		Evaluated as meeting the requirements of TF2 toTF5
Durability of nominal activation conditions/Sensitivity:			
temperature resistance			
Cold (operational)	4.7.1.1		The specimen did not emit neither an alarm nor a fault signal and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Dry heat (operational)	4.7.1.2		The specimen did not emit neither an alarm nor a fault signal and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Humidity resistance			
Damp heat, steady-state (operational)	4.7.2.1		The specimen did not emit neither an alarm nor a fault signal and ratio of response values $m_{max}:m_{min} \leq 1.6$
Damp heat, steady-state (endurance)	4.7.2.2		No fault signal, attributable to the endurance conditioning was given on reconnection of the specimen and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Corrosion resistance			

Sulphur dioxide (SO_2) corrosion (endurance)	4.7.3		No fault signal, attributable to the endurance conditioning was given on reconnection of the specimen and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Vibration resistance			
Shock (operational)	4.7.4.1		No fault signal given from the specimen during the conditioning period or the additional 2 min. and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Impact (operational)	4.7.4.2		No fault signal given from the specimen during the conditioning period or the additional 2 min. and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Vibration, sinusoidal (operational)	4.7.4.3		No fault signal given from the specimen during the conditioning and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Vibration, sinusoidal (endurance)	4.7.4.4		No fault signal, attributable to the endurance conditioning was given on reconnection of the specimen and Ratio of response values $m_{max}:m_{min} \leq 1.6$
Electrical stability EMC immunity (operational) a) Electrostatic discharge (operational) b) Radiated electromagnetic fields (operational) c) Conducted disturbances(operational) d) Fast transient bursts (operational) e) Slow high energy voltage surge (operational)	4.7.5		No alarm or fault signal given during the conditioning and Ratio of response values $m_{max}:m_{min} \leq 1.6$

Essential characteristics	**Clauses in EN 54-23:2010**	**Level(s) or class(es)**	**Notes**

Operational reliability:		None	
Duration of operation	4.2.1		Pass
Provision for external conductors	4.2.2		Pass
Flammability of materials	4.2.3		Pass
Enclosure protection	4.2.4		Pass
Access	4.2.5		Pass
Manufacturer's adjustments	4.2.6		Pass
On-site adjustment of behaviour	4.2.7		Pass
Requirements for software controlled devices	4.2.8		Pass
Performance parameters under fire condition:			
Coverage volume	4.3.1		Pass
Variation of light output	4.3.2		Pass
Minimum and maximum light intensity	4.3.3		Pass
Light colour	4.3.4		Red/White
Light temporal pattern and frequency of flashing	4.3.5		Pass/0,5 Hz
Marking and data	4.3.6		Pass
Synchronization (option with requirements)	4.3.7		Pass
Durability:			
Temperature resistance:			
Dry heat (operational)	4.4.1.1		Pass
Dry heat (endurance)	4.4.1.2		Pass
Cold (operational)	4.4.1.3		Pass
Humidity resistance:			
Damp heat, cyclic (operational)	4.4.2.1		Pass
Damp heat, steady state (endurance)	4.4.2.2		Pass
Damp heat, cyclic (endurance)	4.4.2.3		N/A
Shock and vibration resistance:			
Shock (operational)	4.4.3.1		Pass
Impact (operational)	4.4.3.2		Pass
Vibration (operational)	4.4.3.3		Pass
Vibration (endurance)	4.4.3.4		Pass
Corrosion resistance:			
SO2 corrosion (endurance)	4.4.4		Pass
Electrical stability:			
EMC, immunity (operational)	4.4.5		Pass

NPD for CEA 4021: July 2003

Annex 2

TEST DOCUMENTATION

Accredited Laboratory	Report no.	Date
Intertek	103874656LHD-002a	2019-11-25
Intertek	103874656LHD-002b	2019-11-25
Intertek	103874656LHD-021	2020-03-20
Intertek	103874656LHD-022	2020-03-20
Intertek	103874656LHD-024	2020-03-20
Intertek	103874656LHD-030	2020-05-06
Intertek	103963397LHD-021	2020-11-20
Intertek	103963397LHD-022	2020-11-20
CNBOP-PIB	332/BA/24	2024-09-02

TECHNICAL BASIS

File Number	Title
BoM V-430-S-VADR CD AutroGuard	Bill of Materials Report
V-430-S-CO	Product datasheet

DBI Certification A/S
Jernholmen 12, 2650 Hvidovre
Tlf.: 36 34 90 90
E-mail: info@dbicertification.dk
www.dbicertification.dk