



The manufacturer
may use the mark:



Valid until August 1, 2018
Revision 1.2 July 31, 2015



ANSI Accredited Program
PRODUCT CERTIFICATION
#1004

Certificate / Certificat Zertifikat / 合格証

AUT 1102049 C002

exida hereby confirms that the:

AutroVu Model AV10 Display **Autronica Fire and Security AS** **Trondheim, Norway**

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-7

and meets requirements providing a level of integrity to:

Systematic Capability: SC 2 (SIL 2 Capable)

Random Capability: Type B, Route 1_H Device

**PFD_{AVG} and Architecture Constraints
must be verified for each application**

Safety Function:

The AV10 will measure a 4-20mA input signal and provide representative alarm status to its 4-20mA and relay outputs within the Safety Accuracy.

The AV10 display and magnetic switches, HART, Modbus, and Foundation Fieldbus options are interference-free.

Application Restrictions:

The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.



Griff Irons
Evaluating Assessor

[Signature]
Certifying Assessor

AutroVu Model AV10 Display

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Systematic Capability: SC 2 (SIL 2 Capable)

Random Capability: Type B, Route 1_H Device

**PFD_{AVG} and Architecture Constraints
must be verified for each application**

Systematic Capability :

The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 2. These are intended to achieve sufficient integrity against systematic errors of design by the manufacturer.

A Safety Instrumented Function (SIF) designed with this product must not be used at a SIL level higher than stated.

Random Capability:

The SIL limit imposed by the Architectural Constraints must be met for each element.

IEC 61508 Failure Rates in FIT*

Device	λ_{SD}	λ_{SU}	λ_{DD}	λ_{DU}	SFF
AutroVu Model AV10 Display Current Output	0	68.5	555.0	52.8	92.2%
AutroVu Model AV10 Display Relay Output	0	195.2	514.0	49.6	93.5%

* FIT = 1 failure / 10⁹ hours

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of PFD_{avg} considering redundant architectures, proof test interval, proof test effectiveness, any automatic diagnostics, average repair time and the specific failure rates of all products included in the SIF. Each element must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

The following documents are a mandatory part of certification:

Manufactured by Detector Electronics Corporation

Assessment Report: DET 11/02-049 R004 V1R2

Safety Manual: 95-8668 2.1 Rev: 3/13



64 N Main St
Sellersville, PA 18960

T-062, V1R7