

Conventional I.S. AV Galvanic Barrier



Product overview

Product	Conventional I.S. AV Galvanic Barrier
Part No.	29600-442

Product Information

The Conventional Intrinsically Safe (I.S.) AV Galvanic Barrier is used for intrinsic safety applications. It provides control and signal transfer to conventional compatible fire alarm devices inside hazardous areas.

Since this isolator is loop-powered, use the technical data to verify that proper voltage is available to the field devices.

- Single channel isolated barrier
- Loop-powered
- Conventional fire alarm input
- Up to SIL3 acc. to IEC 61508

Technical data

All data is supplied subject to change without notice. Specifications are typical at 19 V, 25°C and 50% RH unless otherwise stated.

General specifications

Signal type Analogue input / Digital output

Functional safety related parameters

Safety integrity level (SIL) SIL3

Supply

Rated voltage U_r Loop powered

Power dissipation 1.4 W at 24 V, 220 Ω load

Control circuit

Connection Terminals 5 +, 6 - loop powered

Voltage 19 ... 30 V DC

Input Current 75 mA at 24 V, 220 Ω load

Field circuit

Connection Terminals 1+, 2-

Current Limit 45 mA

Transmission range Voltage 4 - 20 V dc/0 - 6 V_{pp} ac
current 1 - 20 mA

Galvanic isolation

Input/Output Basic insulation according to IEC/EN 61010-1, rated insulation voltage 300 V

Indicators/settings

labelling LEDs, Dip Switches
Space for labelling at the front

Directive conformity

Electromagnetic compatibility

Directive 2014/30/EU EN61326-1:2013 (industrial locations)

Conformity

Electromagnetic compatibility NE 21:2012, EN 61326-3-2:2008

Degree of protection IEC 60529:2013

Protection against electrical shock UL 61010-1:2010

Ambient conditions

Ambient temperature -20 - 60 °C (-4 - 140 °F)

Mechanical specification

Degree of protection IP20

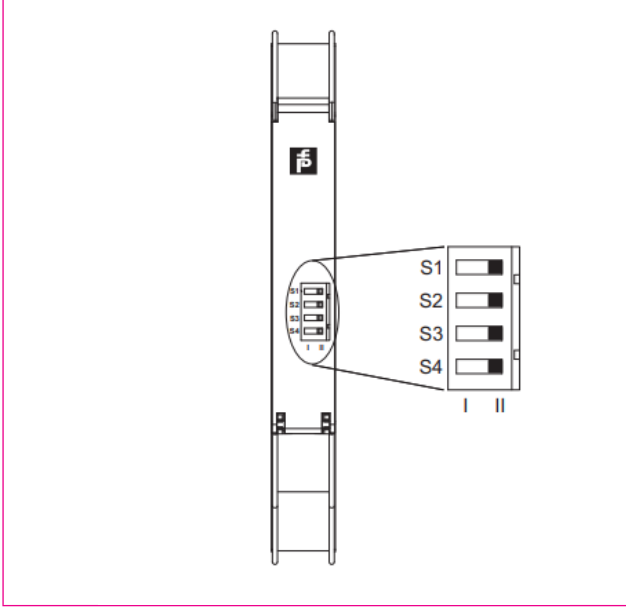
Connection screw terminals

Mass approx. 150g

Technical data (cont'd)

Dimensions	12.5 x 119 x 114 mm (0.5 x 4.7 x 4.5 inch), housing type A2
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
<u>Data for application in connection with hazardous areas</u>	
EU-Type examination certificate	EXA 17 ATEX 0002 X
Marking	ⓧ II 3(1)G Ex nC ec [ia Ga] IIC t4 Gc ⓧ II (1) D [EX IA DA] IIIC ⓧ I (M1) [EX IA MA] I
Voltage U_o	26 V
Current I_o	93 mA
Power P_o	605 mW
Supply	
Maximum safe voltage U_m	6 (Attention! the rated voltage can be lower)
Galvanic isolation	
Input/Output	safe electrical isolation acc. to IEC/EN60079-11, rated insulation voltage 300 V
Directive conformity	ⓧ
Directive 2014/34/EU	EN 60079-0:2012+A11:2013, EN 60079-7:2015, EN 60079-11:20102, EN 60079-15:2010
<u>International approvals</u>	
UL approval	
Control drawing	116-0448 (cULus)
IECEx approval	IECEx EXA 17.0001X
Approved for	Ex Nc ec [ia Ga] IIC t4 Gc [Ex ia Da] IIIC [Ex ia Ma] I

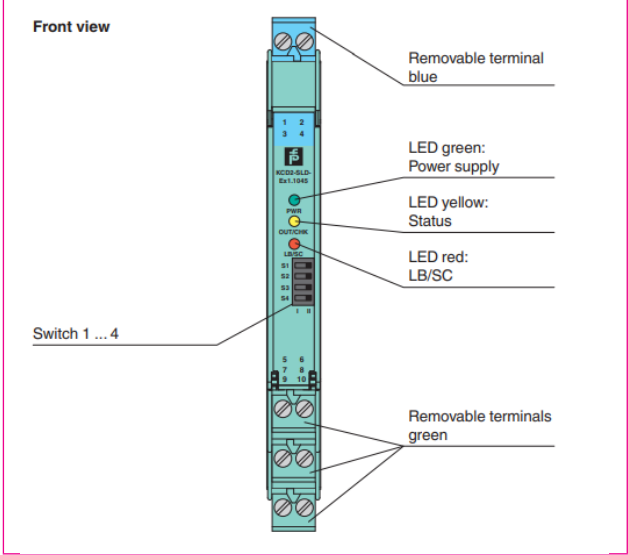
Configuration



Switch	Function		Position
S1	Line fault detection	enabled	I
		disabled	II
S2	Mode of operation	loop powered	I
		bus powered with logic input	II
S3	Minimum load	enabled	I
		disabled	II
S4	No function		

Factory Setting: line fault detection enabled, operating mode loop powered, minimum load enabled.

Galvanic barrier assembly



Characteristic Curve

