

Features

- Pluggable, mounts between device coupler and spur cable
- Intrinsically safe (Ex ia), FISCO, Entity, DART Fieldbus, or general-purpose
- Optional diagnostics for wear
- Grounding of shield via gas-discharge tube
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Indication via LED and Advanced Diagnostics

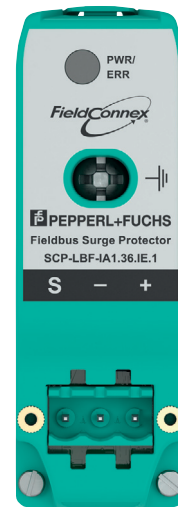
Function

This fieldbus surge protector is in acc. with IEC 61158-2 and mounts on the spur connector of FieldConnex® device couplers protecting them. It directs power surges to ground via gas discharge tubes. It is certified intrinsically safe for circuits in hazardous areas up to Zone 0/Div. 1 and DART Fieldbus. The surge protector is installed in Zone 1 ... 2 or Div. 1 ... 2.

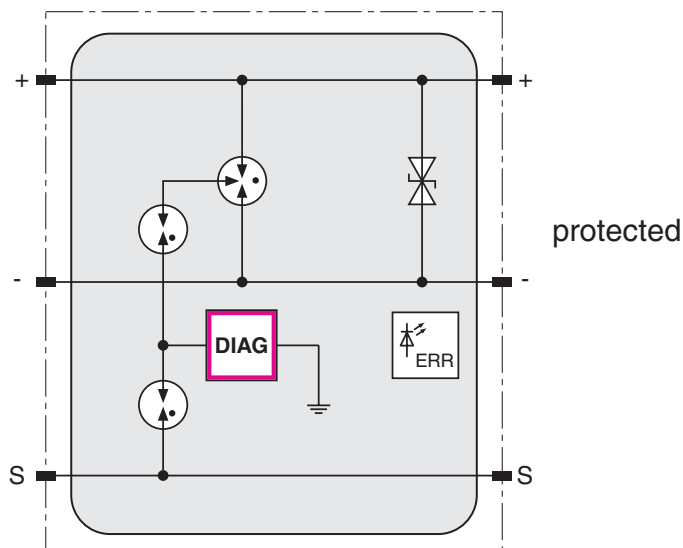
Self-diagnostics (option) continuously monitors wear caused by surges. The end of the useful life is indicated via LED and in the control room via FieldConnex® Advanced Diagnostics for exchange before protection is lost.

Installation on the spur connector is without additional wiring even as retrofit. A single grounding bar connects surge protectors mounted side by side to common ground.

Assembly



Connection



Release date 2012-11-29 10:34 Date of issue 2012-11-29 t157352_eng.xml

Fieldbus interface		
Self current consumption		≤ 6 mA (for version SCP-LBF-IA1.36.IE.1) , ≤ 0 mA (for version SCP-LBF-IA1.36.IE.0)
Indicators/operating means		
LED ERR		green flashing: status OK , red flashing: maintenance required (for version SCP-LBF-IA1.36.IE.1)
Electrical specifications		
Rated voltage		36 V
Rated current		250 mA
Voltage Protection Level	U_p	
Line/Line		≤ 50 V category B2 10/700μsec , 25 A ≤ 53 V category C1 8/20μsec , 150 A ≤ 55 V category C2 8/20μsec , 150 A ≤ 46 V category C3 1kV/μsec , 10 A
Line/Earth		≤ 980 V category B2 10/700μsec , 50 A per line ≤ 800 V category C1 8/20μsec , 50 A per line ≤ 1450 V category C2 8/20μsec , 5 kA per line ≤ 1200 V category C3 1kV/μsec , 50 A per line ≤ 980 V category D1 10/350μsec , 500 A per line
Screen/Shield indirect grounded (via GDT)		≤ 500 V category B2 10/700μsec , 100 A ≤ 600 V category C1 8/20μsec , 500 A ≤ 700 V category C2 8/20μsec , 10 kA ≤ 550 V category C3 1kV/μsec , 100 A ≤ 570 V category D1 10/350μsec , 1 kA
Reaction time	t_A	
Line/Line		≤ 1 ns
Line/Earth		≤ 100 ns
Screen/Shield-Earth		≤ 100 ns
Overstressed fault mode		acc. IEC 61643-21 line inoperable mode 2
Impulse durability		
Per line		5 kA category C2 8/20μsec
Screen/Shield indirect grounded (via GDT)		1 kA category D1 10/350μsec 10 kA category C2 8/20μsec
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Standard conformity		
Electromagnetic compatibility		
Protection degree		IEC 60529
Fieldbus standard		IEC 61158-2
Climatic conditions		IEC 60721
Shock resistance		EN 60068-2-27
Vibration resistance		EN 60068-2-6
Surge protection		IEC 61643-21
Ambient conditions		
Ambient temperature		-40 ... 70 °C (-40 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		≤ 95 % non-condensing
Shock resistance		15 g 11 ms
Vibration resistance		1 g , 10 ... 150 Hz
Corrosion resistance		acc. to ISA-S71.04-1985, severity level G3
Mechanical specifications		
Connection type		screw terminals
Core cross-section		flexible wire 2.5 mm ² solid wire ≤ 4 mm ²
Housing material		Polyamide PA 6.6
Protection degree		IP20
Mass		pending
Grounding		M4 screw and external grounding rail
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		SIRA 12 ATEX 2128X
Group, category, type of protection, temperature class		Ⓔ II 1G Ex ia IIC T4
Voltage	U_i	24 V
Current	I_i	500 mA
Internal capacitance	C_i	2 nF
Internal inductance	L_i	0.1 μH

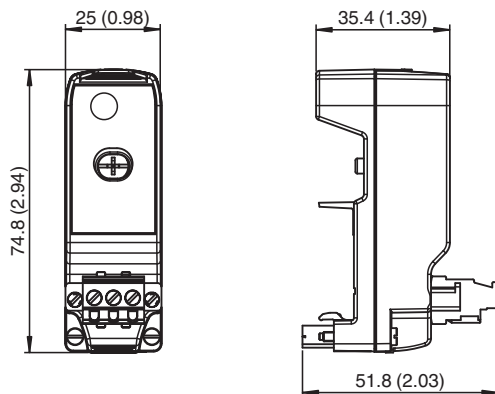
Release date 2012-11-29 10:34 Date of issue 2012-11-29 t157352_eng.xml

Statement of conformity		SIRA 12 ATEX 4176X
Group, category, type of protection, temperature class		⊕ II 3G Ex nAc IIC T4 , ⊕ II 3G Ex ic IIC T4
Voltage	U _i	33 V
Current	I _i	600 mA
Internal capacitance	C _i	2 nF
Directive conformity		
Directive 94/9/EC		EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010 , EN 60079-26:2007
Supplementary information		FISCO field device
International approvals		
CSA approval		pending
Control drawing		pending
IECEX approval		IECEX SIR 12.0051X
Approved for		Ex ia IIC T4
General information		
Supplementary information		Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

Versions

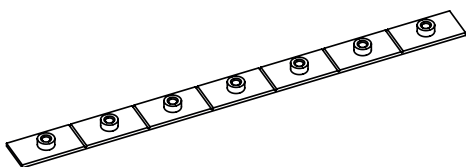
Type	Description
SCP-LBF-IA1.36.IE.0	Fieldbus Surge Protector without diagnosis
SCP-LBF-IA1.36.IE.1	Fieldbus Surge Protector with diagnosis

Dimensions



Dimensions in mm (in)

Accessories



Grounding rail ACC-LBF-EB.6 for installation with FieldConnex[®] device couplers

Release date 2012-11-29 10:34 Date of issue 2012-11-29 t157352_eng.xml