

**Features**

- 12 increased safety outputs (Ex e)
- Segment Protector in Zone 1/Div. 2
- Instruments in Zone 1/Div. 1
- Short-circuit protection per output
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- High power on trunk and spurs

**Function**

The R-SP-E12 Segment Protector is a fieldbus coupler that connects instruments to the fieldbus segment.

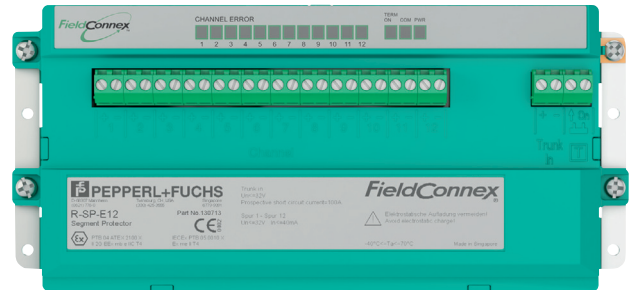
Flameproof (Ex d) field devices are connected to the trunk line via one output each. Trunk and spurs are certified increased safety (Ex e).

Short-circuit protection ensures proper operation of the segment in case of unwanted faults at the spur. Work on devices always requires a hot work permit. The integrated fieldbus terminator features high-availability design and is selectable.

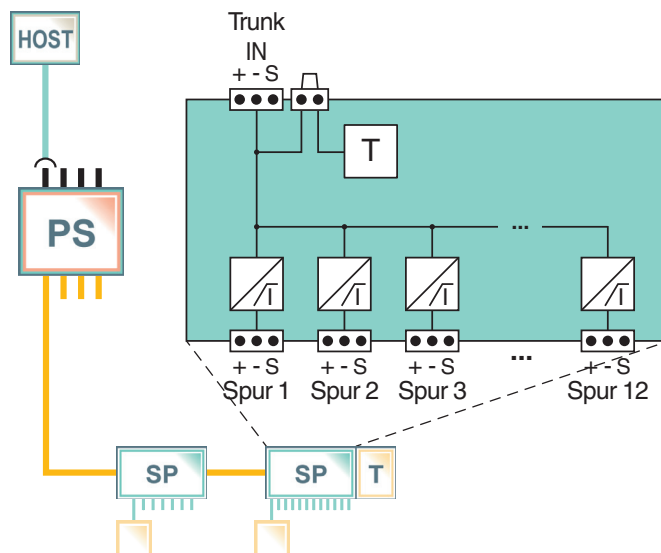
Connectors are fixed screw terminals. Any grounding and shielding concept is possible based on FieldConnex enclosure solutions.

Customizable housings host one or more Segment Protectors for different output counts.

**Assembly**



**Connection**



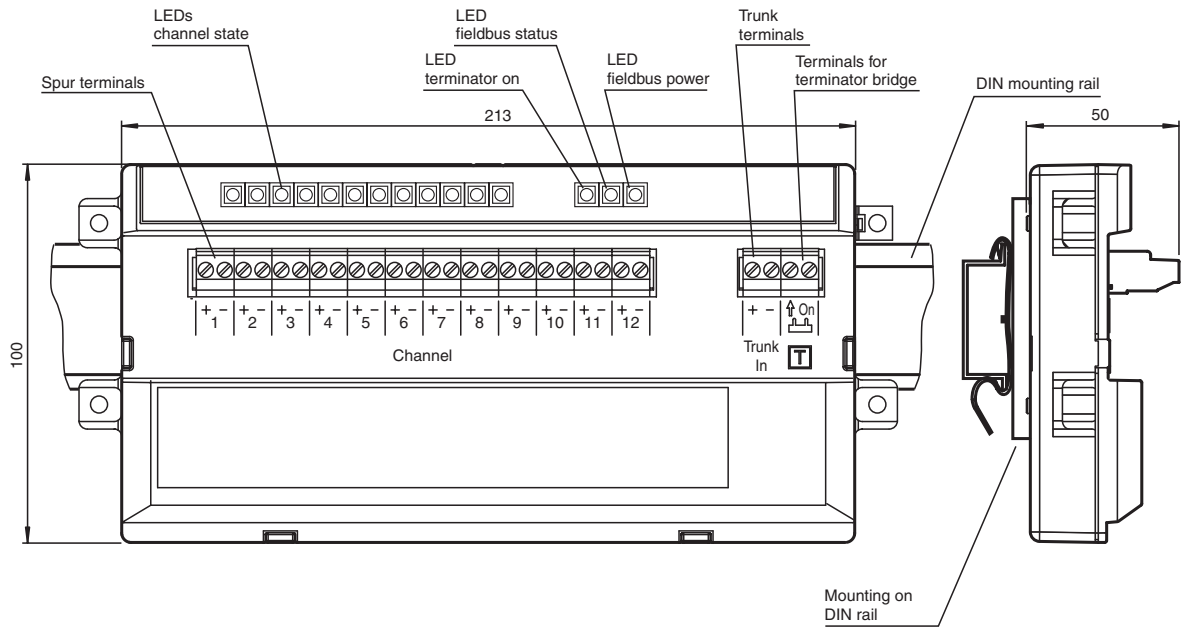
Zone 1/Div. 2

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<b>Fieldbus interface</b>	
Power loss	250 mW
<b>Main cable (Trunk)</b>	
Rated voltage	9 ... 32 V DC
<b>Outputs</b>	
Rated voltage	≤ 32 V
Rated current	≤ 40 mA
Short-circuit current	max. 50 mA
Self current consumption	≤ 9 mA
Voltage drop main cable/outputs	≤ 1.3 V
Terminating impedance	100 Ω integrated
Terminating resistor	selectable 100 Ω integrated
Surge protection	trunk, spurs overvoltage protected if voltage exceeds typ. 39 V, max. 41 V
<b>Indicators/operating means</b>	
LED PWR	green: Fieldbus voltage > 10 V
LED CHANNEL ERROR	red flashing: short-circuit
LED COM	yellow: bus activity
LED TERM ON	yellow: termination activated
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
<b>Standard conformity</b>	
Electromagnetic compatibility	NE 21:2006
Protection degree	IEC 60529
Fieldbus standard	IEC 61158-2
Shock resistance	EN 60068-2-27
Vibration resistance	EN 60068-2-6
<b>Ambient conditions</b>	
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	5 g , 10 ... 150 Hz
<b>Mechanical specifications</b>	
Connection type	screw fixing
Core cross-section	≤ 2.5 mm <sup>2</sup> / AWG 12-24
Housing material	Polycarbonate
Housing width	216 mm
Housing height	100 mm
Housing depth	50 mm
Protection degree	IP20
Mass	800 g
Mounting	DIN rail mounting
Coating	resin filled
<b>Data for application in connection with Ex-areas</b>	
EC-Type Examination Certificate	PTB 04 ATEX 2100 X
Group, category, type of protection, temperature class	Ⓔ II 2G EEx mb e IIC T4
<b>Maximum values</b>	
Rated voltage	≤ 35 V
Prospective short-circuit current	100 A
<b>Directive conformity</b>	
Directive 94/9/EC	EN 50014:1997+A1+A2 , EN 50019:2000 , EN 60079-18:2004
<b>International approvals</b>	
IECEX approval	IECEX PTB 05.0010X
Approved for	Ex me II T4
<b>General information</b>	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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**Dimensions**



**Note:**

For the connection of the cable shields earth bars are to be used in the enclosure. With metallic enclosures the appropriate insulation has to be ensured.

**Installation note**

see manual