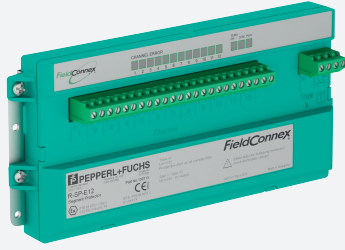


# Segment Protector

## FieldConnex® Fieldbus

### R-SP-E12



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

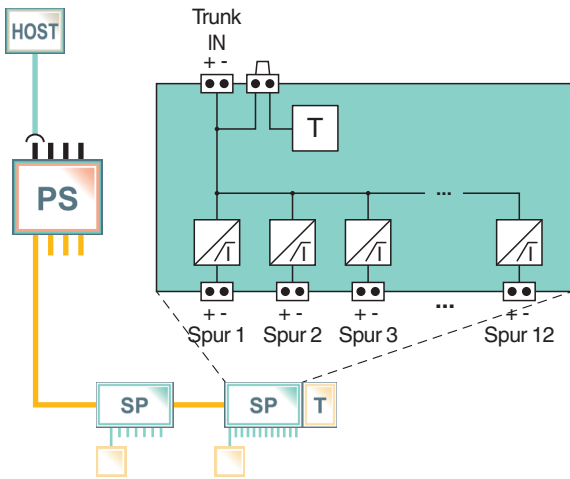
Segment protector, junction box for fieldbus with short-circuit protection, Field junction box, module for DIN rail mounting



### Function

The R SP E12 Segment Protector is a device coupler that connects field instruments to the 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.

### Connection



Zone 1/Div. 2

### Technical Data

#### General specifications

Design / Mounting	Cabinet installation
Installation in hazardous area	Zone 1 / Div. 2
<b>Fieldbus connection</b>	
Power dissipation	250 mW
<b>Main cable (Trunk)</b>	
Cable entry type	screw terminal , fixed
Rated voltage	9 ... 32 V DC
<b>Outputs</b>	
Number of outputs	12

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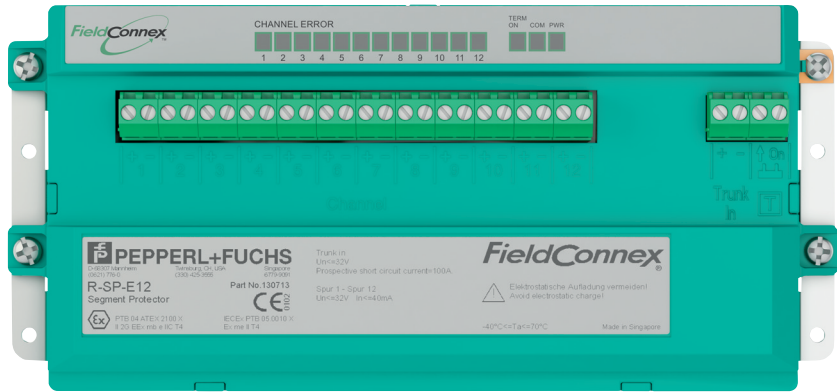
## Technical Data

Cable entry type	screw terminal , fixed
Rated voltage	max. 32 V
Rated current	max. 40 mA
Short-circuit current	max. 52 mA
Self current consumption	max. 9 mA
Voltage drop main cable/outputs	max. 1.3 V
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 2014/30/EU	EN 61326-1:2013
<b>Standard conformity</b>	
Electromagnetic compatibility	NE 21:2006
Degree of protection	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 terminal , fixed
Core cross section	max. 2.5 mm <sup>2</sup> / AWG 12-24
Housing material	Polycarbonate
Degree of protection	IP20
Mass	800 g
Dimensions	
Height	100 mm
Width	216 mm
Depth	50 mm
Mounting	DIN rail mounting
Coating	resin filled
<b>Data for application in connection with hazardous areas</b>	
EU-type examination certificate	PTB 04 ATEX 2100 X
Marking	Ⓜ II 2 G Ex eb mb IIC T4 Gb
Maximum values	
Rated voltage	≤ 35 V
Prospective short-circuit current	100 A
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018+AC:2020 , EN IEC 60079-7:2015+A1:2018 , EN 60079-18:2015+A1:2017
<b>International approvals</b>	
IECEx approval	
IECEx certificate	IECEx PTB 05.0010X
IECEx marking	Ex eb mb IIC T4 Gb

**Technical Data**

**General information**  
 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 [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

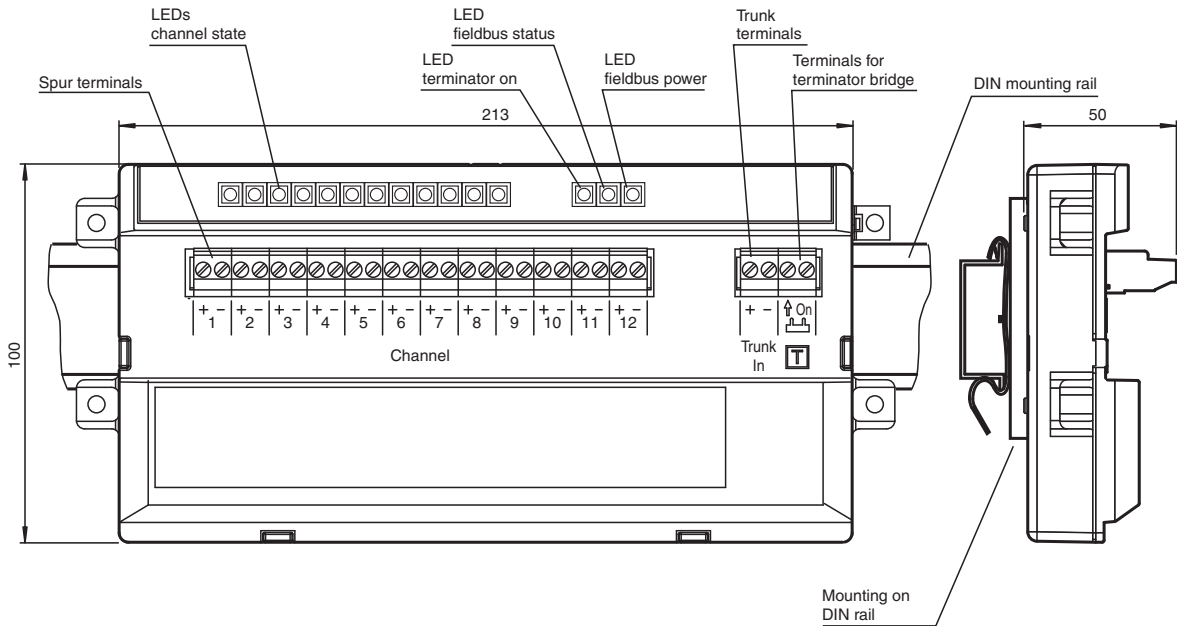
**Assembly**



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**Additional Information**

**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**

see manual

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