

## Features

- 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

## Function

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

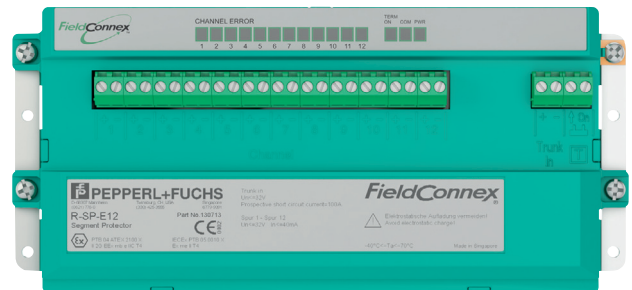
Flameproof (Ex d) field devices are connected to the trunk line via one output each. Trunk and spurs are certified increased safety (Ex e).

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.

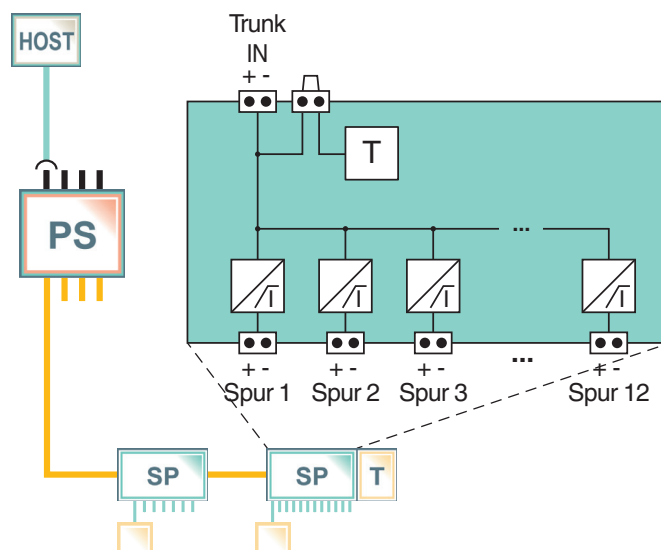
Connectors are fixed screw terminals. Any grounding and shielding concept is possible based on FieldConnex enclosure solutions.

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


## Assembly



## Connection

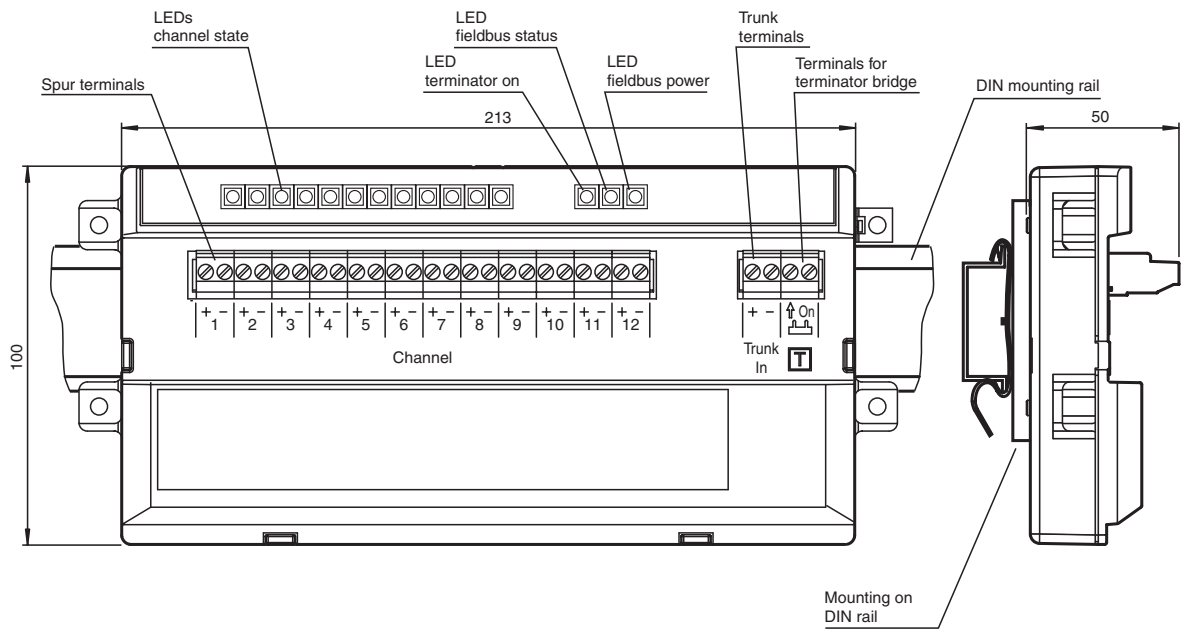


Zone 1/Div. 2

<b>General specifications</b>	
Design / Mounting	Cabinet installation
<b>Fieldbus interface</b>	
Power dissipation	250 mW
Main cable (Trunk)	
Rated voltage	9 ... 32 V DC
<b>Outputs</b>	
Number of outputs	12
Rated voltage	≤ 32 V
Rated current	≤ 40 mA
Short-circuit current	max. 52 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	
Degree of protection	NE 21:2006
Fieldbus standard	IEC 60529
Shock resistance	IEC 61158-2
Vibration resistance	EN 60068-2-27
	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
Degree of protection	IP20
Mass	800 g
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 e mb IIC T4 Gb
Maximum values	
Rated voltage	≤ 35 V
Prospective short-circuit current	100 A
Directive conformity	
Directive 94/9/EC	EN 60079-0:2012 , EN 60079-7:2007 , EN 60079-18:2009
<b>International approvals</b>	
IECEX approval	IECEX PTB 05.0010X
Approved for	Ex me II T4
<b>Certificates and approvals</b>	
Marine approval	DNV A-14038
<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