



Distributor for connection of devices to the fieldbus segment

- 4, 6, 8, 10 or 12 outputs with individual short-circuit protection
- High-Power Trunk concept for maximum devices and long cable runs
- Outputs certified EEx nL, live working at the spur permitted
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Installation in Zone 2/Class I, Div. 2
- Built-in overvoltage protection

Function

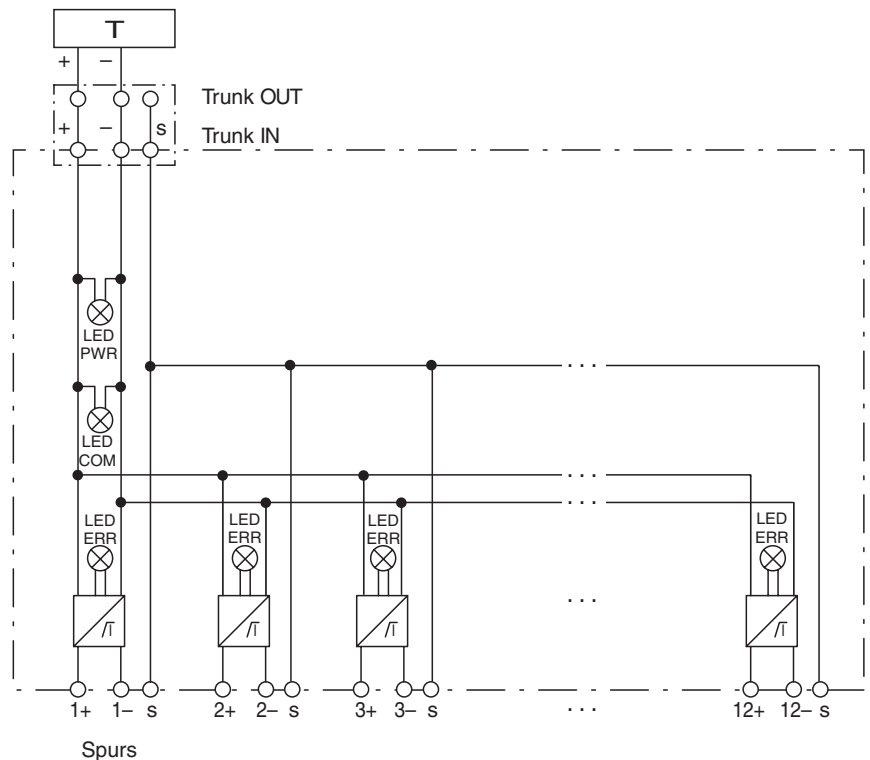
The number of output channels can be chosen for the fieldbus Segment Protector R2-SP-N* perfecting packing density, handling and maintainability for applications according to IEC 61158-2, PROFIBUS PA or FOUNDATION Fieldbus H1. Each output (spur) connects one field instrument to the trunk line. Each spur is individually monitored for short-circuit conditions. Thus a fault at one spur is limited and the remaining segment remains in operation.

The trunk is connected via a T-connector. Exchange and modification of one Segment Protector is possible without effect on other parts of the same fieldbus segment. All connectors feature plugs with retaining screws and receptacles for measuring tools such as the mobile Advanced Diagnostic Module.

Power supplies by Pepperl+Fuchs such as the Power Hub feed the High-Power Trunk for maximum cable lengths and highest number of devices in any explosive area: High energy level on the trunk line is limited Ex nL at each spur connection by the Segment Protector.

Field devices can be installed in Zone 2/Class I, Div. 2 and maintained while the system is energized.

Connection



Composition

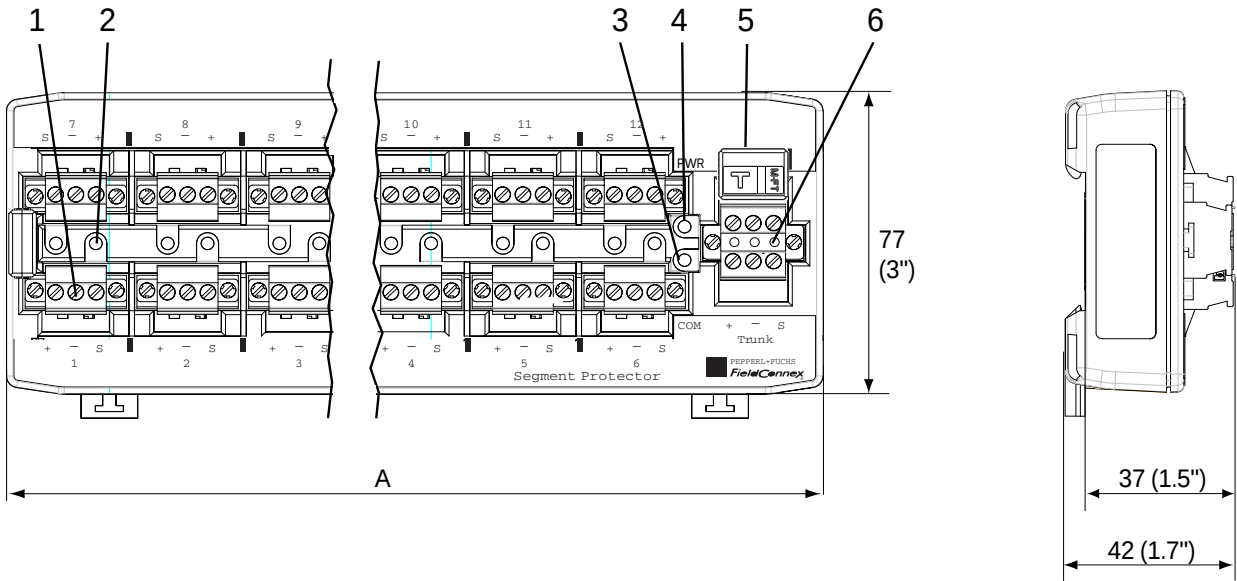


Fieldbus interface		
Main cable (Trunk)		
Rated voltage		9 ... 31 V DC
Rated current		≤ 4.5 A
Outputs		
Number of outputs		see table "Technical data depending on model"
Rated voltage		≤ 31 V
Rated current		≤ 43 mA
Short-circuit current		≤ 58 mA
Self current consumption		see table "Technical data depending on model"
Voltage drop main cable/outputs		≤ 1.3 V
Voltage drop trunk In/Out		0 V
Terminating resistor		100 Ω external
Surge protection		Trunk overvoltage protection if voltage exceeds typ. 39 V, max. 41 V
Indicators/operating means		
LED ERR		red: short-circuit
LED PWR		green: Fieldbus voltage > 10 V
LED COM		yellow: bus activity
Directive conformity		
Electromagnetic compatibility		
Directive 89/336/EC		EN 61326
Standard conformity		
Electromagnetic compatibility		
Protection degree		IEC 60529
Fieldbus standard		IEC 61158-2
Shock resistance		EN 60068-2-27
Vibration resistance		EN 60068-2-6
Ambient conditions		
Ambient temperature		
Storage temperature		-50 ... 85 °C (223 ... 358 K)
Relative humidity		< 95 % non-condensing
Shock resistance		15 g 11 ms
Vibration resistance		1 g , 10 ... 150 Hz
Mechanical specifications		
Connection type		
Core cross-section		≤ 2.5 mm ² /AWG 12-24
Housing material		Polycarbonate
Housing width		see dimensions
Height of housing		see table "Technical data depending on model"
Housing depth		see dimensions
Protection degree		IP20
Mass		see table "Technical data depending on model"
Mounting		DIN rail mounting
Data for application in conjunction with hazardous areas		
Main cable (Trunk)		
Rated current		see Statement of Conformity
Outputs		
Voltage	U _o	32 V
Current	I _o	70 mA
Inductance	L _o	0.25 mH
Capacitance	C _o	60 nF
Statement of conformity		
Group, category, type of protection, temperature classification		⊕ II 3G Ex nA [nL] IIC T4
Directive conformity		
Directive 94/9 EC		EN 60079-15
International approvals		
FM approval		
Control drawing		No. 116-0280
Approved for		Class I, Div 2, ABCD, T4 / Class I, Zone 2, Ex nA [nL] IIC T4
IEC approval		
Approved for		Ex nA [nL] IIC T4

Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity and instructions have to be observed. For information see www.pepperl-fuchs.com.

Dimensions



all dimensions in millimeters (mm) and inch (") without tolerance indication
Description:

- 1 Spur Connection Segment 1
- 2 LED for Segment 1
- 3 LED COM (Communication)
- 4 LED PWR (Power)
- 5 Terminator, removable
- 6 T Connector

Housing height "A" see table "Technical Data depending on model".

Installation note

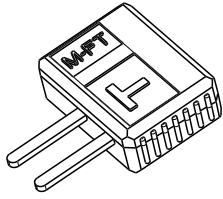
see manual

Technical data depending on model

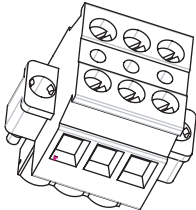
	*-N4	*-N6	*-N8	*-N10	*-N12
Number of outputs	4	6	8	10	12
Housing height (A)	93 mm (3.7")	121 mm (4.7")	148 mm (5.8")	177 mm (7")	205 mm (8")
Mass	130 g	180 g	230 g	280 g	330 g
Quiescent current	max. 8 mA	max. 8 mA	max. 8 mA	max. 10 mA	max. 10 mA
Power loss at 31 V input	248 mW**	248 mW**	248 mW**	310 mW**	310 mW**

** + 8 mW per spur at 20 mA load

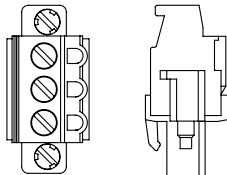
Accessories



Fieldbus Terminator M-FT, Part. No.: 192910 (packaging unit = 3 pieces)



T-Connector T-CON.3, Part. No.: 208182 (packaging unit = 4 pieces)



Fieldbus plug sockets with test points TP-CON.3, No.: 212753 (packaging unit = 4 pieces)