



Segment coupler for a non-intrinsically safe PROFIBUS PA segment

- PROFIBUS DP, EN 50170/2, RS 485: 93.75 kbit/s
- PROFIBUS PA; PROFIBUS EN 50170/2; IEC 61158-2: 31.25 kbits
- Master independent
- Up to 32 PROFIBUS PA participants can be connected to a segment
- Supply via PA bus
- 24 V DC rated operational voltage
- Removable terminals and Power Rail
- EMC acc. to NAMUR NE 21

Function

The segment coupler connects a PROFIBUS PA segment to a PROFIBUS segment based on RS 485 transfer technology in accordance with EN 50170. The Profibus is EN 50170/2 compliant.

The communication process is transparent. The protocol is transferred without any changes. Because of this, the segment coupler works with any PROFIBUS protocol and no parameters are set for it.

The baudrate of the PROFIBUS PA segment is 31.25 kbit/s in accordance with IEC 61158-2. The PROFIBUS segment based on the RS 485 transfer system has a baudrate of 93.75 kbit/s. This baudrate is especially suitable for mixed operation with DP and PROFIBUS PA stations.

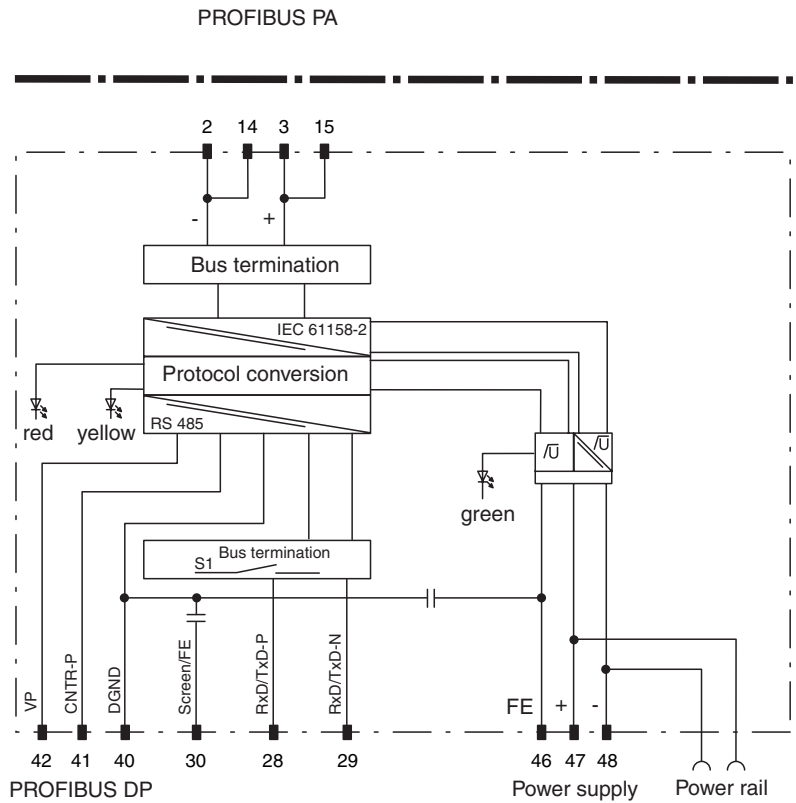
Power is supplied to devices on the PROFIBUS PA by the segment coupler through the bus.

Please note:

No power supply voltage or other external voltage can be applied to the segment coupler on the PROFIBUS terminals.

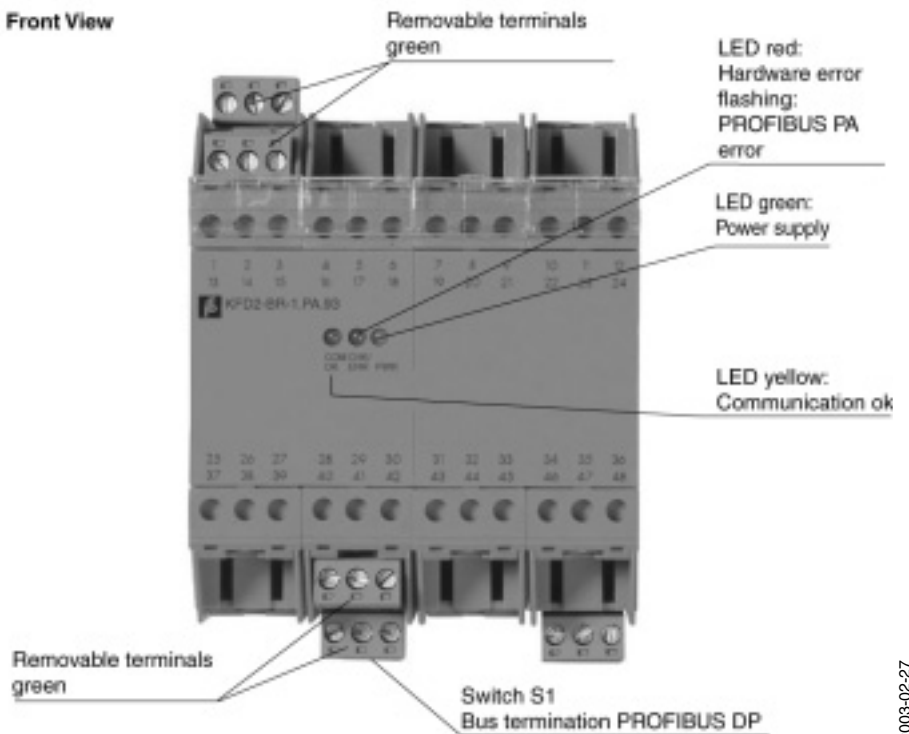
For additional information, please refer to the PNO manual for PROFIBUS PA.

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Composition

Front View



Supply

Connection	Power Rail or terminals 47 (L+), 48 (L-)
Rated voltage	20 ... 35 V DC
Ripple	≤ 10 %
Rated current	790 mA ... 400 mA

Fieldbus connection

Profibus PA

Connection	terminals 3, 15+; 2, 14-
Rated voltage	24 ... 26 V
Rated current	≤ 400 mA
Terminating impedance	100 Ω , integrated

Profibus DP PROFIBUS with RS 485 transmission technique

Connection	terminals 28 RxD/TxD-P, 29 RxD/TxD-N, 30 screen/FE, 40 DGND, 41 CNTR-P, 42 VP
Baudrate	93,75 kBit/s
Terminating impedance	with rotary switch (S1) switchable: 1 = on; 0 = off

Electrical isolation

Profibus PA/Profibus RS 485-Segment	safe electrical isolation acc. to EN 50020, voltage peak value 50 V
PROFIBUS DP/Supply	function insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
PROFIBUS PA/Supply	safe electrical isolation acc. to EN 50020, voltage peak value 50 V
All circuits/FE	function insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}

Standard conformity

Electrical isolation	EN 50178
Electromagnetic compatibility	NAMUR NE 21
Protection degree	IEC/EN 60529
Fieldbus standard	EN 50170/2
Climatic conditions	DIN IEC 721

Directive conformity

Electromagnetic compatibility	
Directive 89/336/EG	EN 61326, EN 50081-2

Ambient conditions

Classification	3K3
Ambient temperature	-20 ... 60 °C (253 ... 333 K)
Storage temperature	-40 ... 85 °C (233 ... 358 K)
Relative humidity	< 75 %
Degree of soiling	max. 2, according to IEC 664

Mechanical specifications

Connection type	terminals
Core cross-section	up to 2.5 mm ²
Housing	80 mm x 115 mm x 107 mm
Protection degree	IP20
Mass	600 g
Mounting	DIN rail mounting

Data for application in conjunction with hazardous areas

Statement of conformity	pending
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Accessories

Power Rail	UPR02
Power feed module	KFD2-EB2
Terminal resistor	KMD0-FT-Ex Fx-FT-Ex1.I.IEC Fx-FT-Ex1.D.IEC

Dimensions

