

Features

- PROFIBUS PA according to EN 50170/2 and IEC 61158-2; 31,25 kbit/s
- Up to 10 Ex devices can be connected to the PA segment
- Supply via Power Rail
- 24 V DC rated operating voltage
- Removable terminals and Power Rail
- EMC acc. to NAMUR NE 21
- Field circuit in the hazardous area EEx ia IIC and Class I, Division 1, Groups A, B, C and D

Function

Together with the KLD2-GT-DP(R).*PA gateway, the power link forms an SK2 Segment Coupler and can only be operated in association with it. The KLD2-PL-Ex1.PA can be installed in Zone 2. The power link thus provides the intrinsically safe interface. The PROFIBUS PA stations are supplied from the power link via the bus.

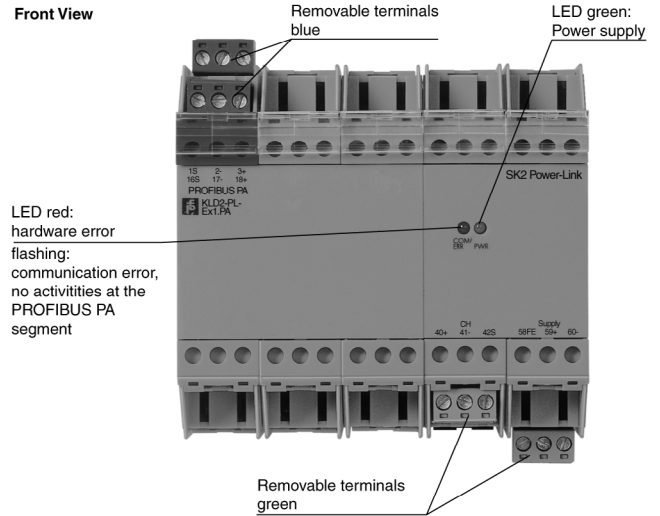
Data exchange between the power link and channel 1 of the KLD2-GT-DP(R).*PA gateway takes place via the power rail. If the power link is operated with channel 2, 3 or 4 of the gateway, a wire connection for the data exchange must be provided between the power link and the gateway, via the removable terminals.

The communication of the SK2 Segment Coupler behaves transparently. The power link does not have to be configured. The baud rate of the intrinsically safe PROFIBUS PA segment is 31.25 kBit/s, in accordance with IEC61158-2.

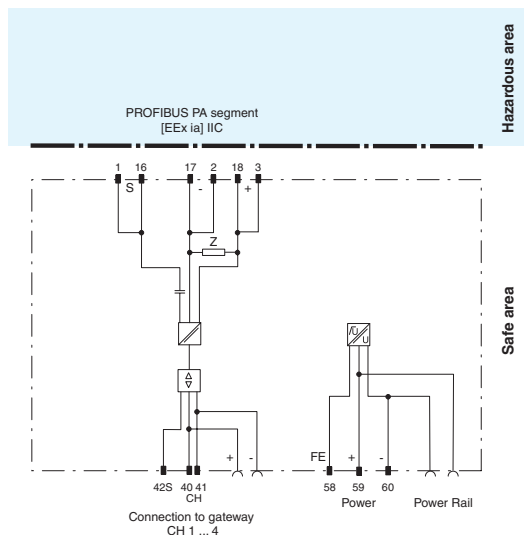
Please note!

Information on the commissioning of the Profibus PA can be obtained from the guidance documentation of the PROFIBUS User Organization.

Assembly



Connection



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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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Supply		
Connection		Power Rail or terminals 59+, 60-, 58 FE
Rated voltage	U_n	20 ... 35 V DC
Ripple		≤ 10 %
Rated current	I_n	430 mA ... 190 mA
Fieldbus interface		
PROFIBUS PA		
Connection		terminals 3, 18+; 2, 17-; 1, 16 shield
Rated voltage		12.8 ... 13.4 V
Rated current		≤ 100 mA
Protocol		PROFIBUS DP V1
Terminating impedance		100 Ω , integrated
Connection to gateway		
Connection		Power Rail or terminals 40+, 41-, 42S to CH1 ... CH4 of the KLD2-GT-DP(R).*PA
Baud rate		31.25 kBit/s
Electrical isolation		
Connection to gateway/PROFIBUS PA		safe galvanic isolation acc. to EN 50020, voltage peak value 375 V
Connection to gateway/supply		functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
PROFIBUS PA/Supply		safe galvanic isolation acc. to EN 50020, voltage peak value 375 V
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013
Standard conformity		
Electrical isolation		EN 50178, EN 50020
Electromagnetic compatibility		NE 21
Degree of protection		IEC 60529
Fieldbus standard		IEC 61158-2, ISA S 50.02 part 2
Climatic conditions		IEC 60721
Ambient conditions		
Classification		3K3
Ambient temperature		-20 ... 60 °C (-4 ... 140 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Relative humidity		< 75 %
Pollution degree		max. 2, according to IEC 60664
Mechanical specifications		
Connection type		Terminals
Core cross-section		up to 2.5 mm ²
Housing		100 mm x 115 mm x 107 mm
Degree of protection		IP20
Mass		650 g
Mounting		DIN rail mounting
Data for application in connection with Ex-areas		
EC-Type Examination Certificate		PTB 99 ATEX 2142 , for additional certificates see www.pepperl-fuchs.com
Group, category, type of protection, temperature class		Ex II (1) G [Ex ia] IIC Ga Ex II (1) D [Ex ia] IIIC Da
Supply		
Maximum safe voltage	U_m	253 V AC / 125 V DC (Attention! U_m is no rated voltage.)
PROFIBUS PA		
Voltage	U_o	15 V
Current	I_o	207.2 mA
Power	P_o	1.93 W
Maximum safe voltage	U_m	60 V
Connection to gateway		
Maximum safe voltage	U_m	60 V (Attention! The rated voltage can be lower.)
Statement of conformity		
Group, category, type of protection, temperature class		Ex II 3G Ex ec IIC T4 Gc
Directive conformity		
Directive 2014/34/EU		EN 60079-0:2012 , EN 60079-7:2015 , EN 60079-11:2012

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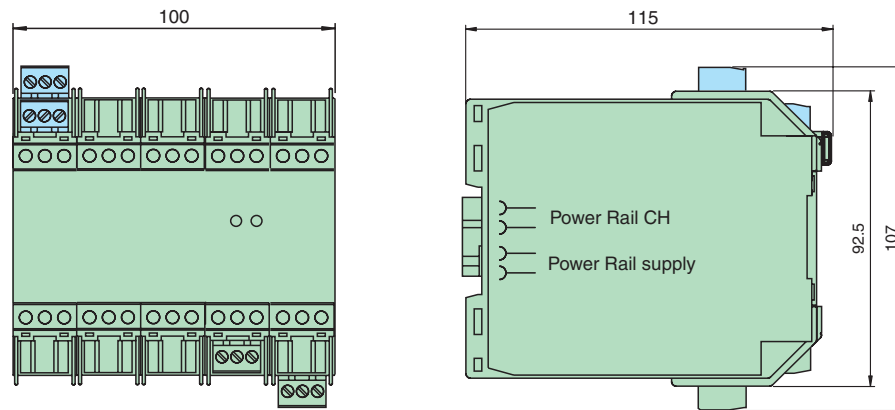
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Supplementary information

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

Dimensions



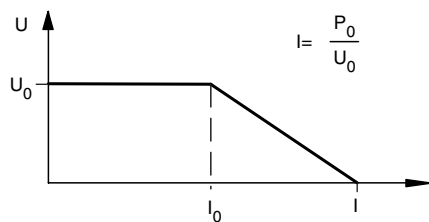
Accessories

Pepperl+Fuchs are able to supply the following accessories for PROFIBUS PA applications:

- Gateways KLD2-GT-DP(R).*PA
- Manual/instructions Segment Coupler
- Power Rail UPR-05 or PR-05
- Power feed module KFD2-EB.RPI or
- Power supply module for connection to a redundant KFD2-EB.R2A.RPI power supply

Additional Information

Output characteristics



Station number, current consumption of the station:

The maximum overall current consumption of the connected bus stations must be less than the nominal current I_S of the Segment Coupler. The modulation current, with which a bus station sends data, is not taken into account.

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