



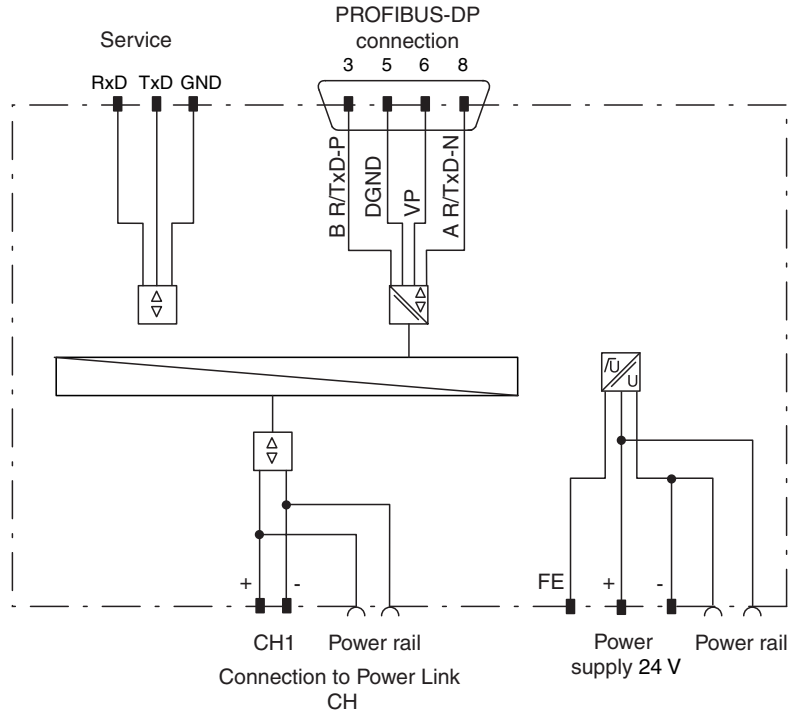
- 1-channel gateway without redundancy**
- PROFIBUS DP transmission rate up to 12 MBit/s
 - Transparent, need no PROFIBUS address
 - PROFIBUS master independent
 - Up to 125 PA devices can be connected
 - No configuration necessary
 - Supply via Power Rail
 - Removable terminals and Power Rail
 - EMC acc. to NAMUR NE 21

Function

Together with at least one Power-Link, the Gateway provides a segment coupler for the connection of a PROFIBUS PA segment to PROFIBUS DP.

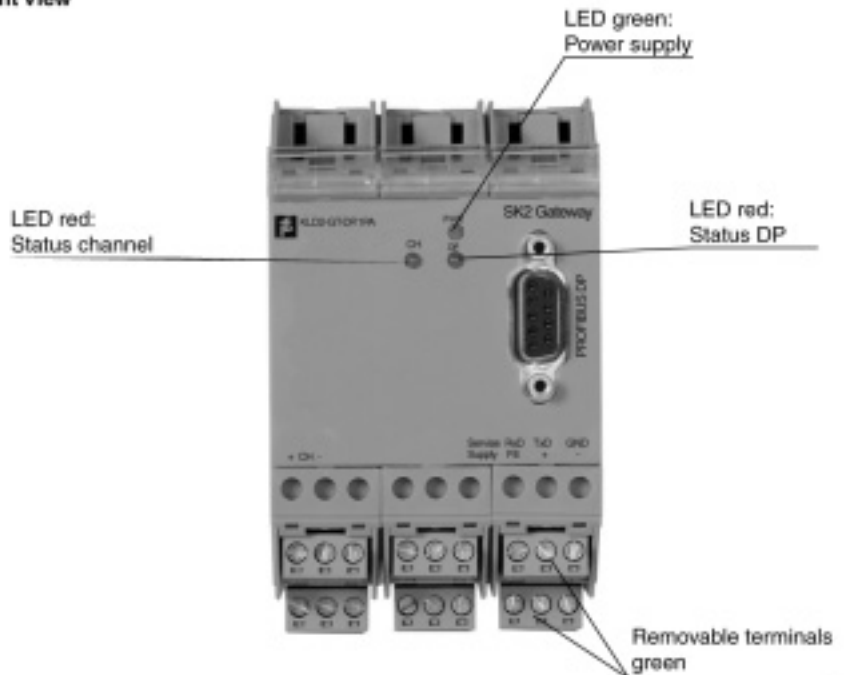
On the PROFIBUS DP site, all transfer rates up to 12 MBit/s are supported in accordance with. EN 50170/2.

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Composition

Front View



Supply

Connection	Power Rail or terminals +, -, FE
Rated voltage	20 ... 35 V DC
Ripple	≤ 10 %
Rated current	138 mA ... 84 mA (without load)
Power loss	3 W

Fieldbus connection

Profibus DP	1 RS485 interface
Connection	9-pin sub-D socket
Baudrate	45,45 kBit/s ... 12 MBit/s
Protocol	PROFIBUS DP V1
Connection to power link	
Connection	Power Rail or terminals CH1+ at 28+, CH1- at 29- of KLD2-PL1.PA Power Rail or terminals CH1+ at 40+, CH1- at 41- of KLD2-PL-Ex1.PA
Baudrate	31,25 kBit/s

Electrical isolation

CH/PROFIBUS DP	function insulation, rated insulation voltage 50 V _{eff}
PROFIBUS DP/Supply	function insulation, rated insulation voltage 50 V _{eff}
All circuits/FE	function insulation, 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	standards
Directive 89/336/EG	EN 61326, EN 50081-2

Ambient conditions

Classification	3K3
Ambient temperature	-20 ... 60 °C (253 ... 333 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	60 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	TÜV 02 ATEX 1819 X
Group, category, type of protection, Temperature classification	⊕ II 3 G EEx nA II T4
Connection to power link	Connection to the data interface CH of KLD2-PL-Ex1.PA (Konf. TÜV 00 ATEX 1531X) Connection to the data interface CH of KLD2-PL-1.PA (Konf. TÜV 00 ATEX 1788X)
Directive conformity	standards
Directive 94/9 EU	EN 50021

Operating principle

Together with at least one power link, the gateway forms a segment coupler for connecting a PROFIBUS PA segment to the PROFIBUS DP. The PROFIBUS is standardised to EN 50 170/2. The gateway supports all transfer rates thus defined up to 12 MBit/s.

The gateway can make one, two or four channels available. The channels work completely independently of each other in terms of time. This makes it possible to reduce response times considerably. Up to 5 power links can be connected to each channel, of which each forms its own PROFIBUS PA segment.

Communication between the gateway and the power links takes place over the power rail for Channel 1 and over the terminals for the other channels.

The communication process is transparent. Each PA station is addressed directly and planning for them is like a PROFIBUS DP station. The planning does not include the gateway and power links.

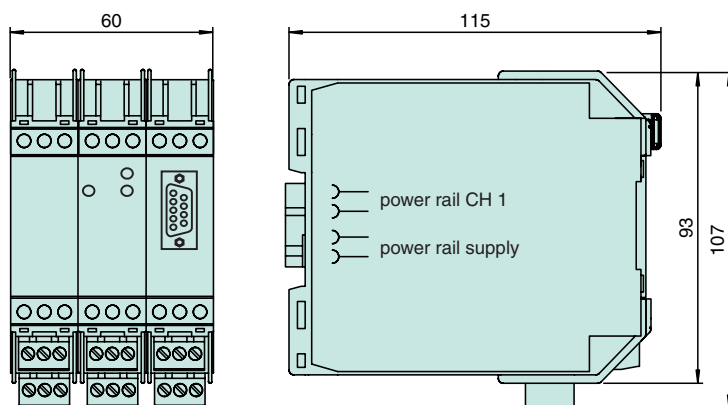
The gateway can be mounted in Zone 2. Power Links are also permitted for this type of installation.

Version KLD2-GT-DPR.xPA allows for operation with a redundant transmission line on the PROFIBUS DP side.

The channels work directly at 31.25 kBaud (Manchester coded). This saves additional delay times in the power links.

For additional information, please consult the segment coupler manual/operating instructions (Part. No. 105085).

Dimensions



Accessories

Pepperl+Fuchs offers the following accessories for PROFIBUS PA applications:

- Power link without an intrinsically safe KLD2-PL-1.PA interface
- Power link with an intrinsically safe KLD2-PL-EX1.PA interface
- Segment coupler manual/operating instructions Part. No. 105085
- Power Rail UPR05 or PR05
- Power feed module KFD2-EB.RPI or
- Power feed module for connecting to a redundant KFD2-EB.R2A.RPI power supply