



**1-channel gateway without redundancy**

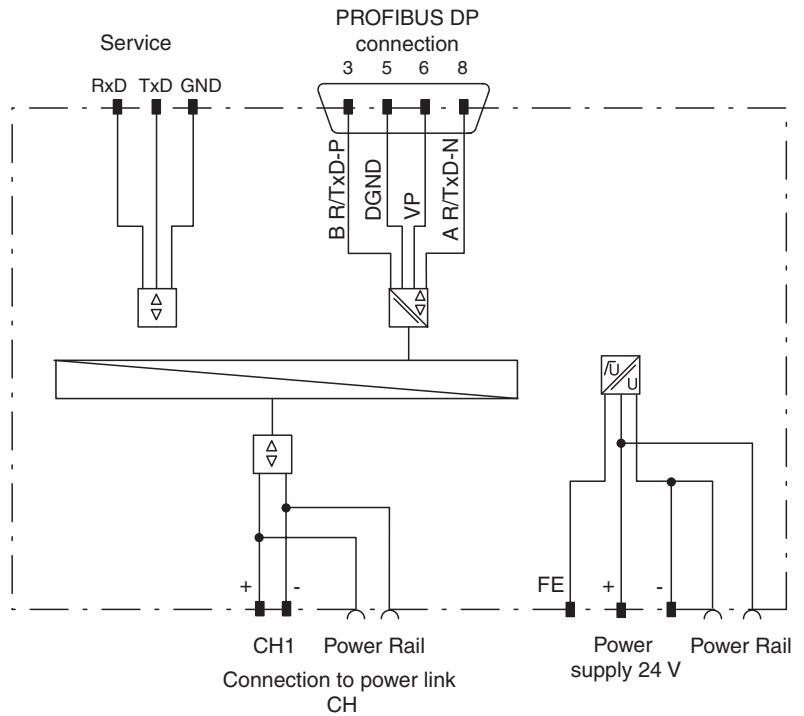
- PROFIBUS DP transmission rate up to 12 MBit/s
- Transparent, need no PROFIBUS address
- PROFIBUS master independent
- Up to 125 PA devices can be connected
- No configuration necessary
- Supply via Power Rail
- Removable terminals and Power Rail
- EMC acc. to NAMUR NE 21

**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.

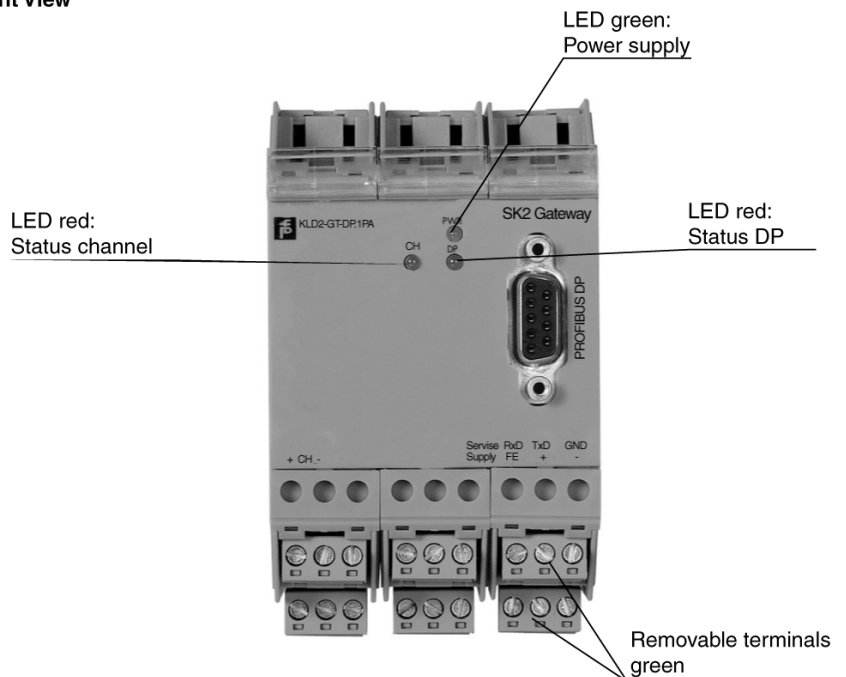
On the PROFIBUS DP side, all transfer rates up to 12 MBit/s are supported in accordance with EN 50170/2.

**Connection**



**Composition**

**Front View**



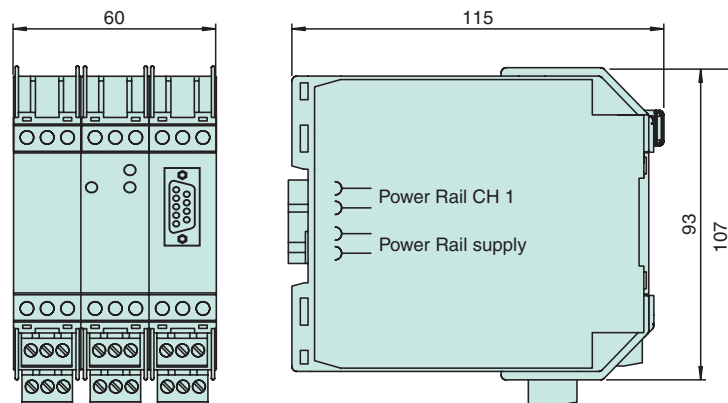
<b>Supply</b>	
Connection	Power Rail or terminals +, -, FE
Rated voltage	20 ... 35 V DC
Ripple	≤ 10 %
Rated current	138 mA ... 84 mA (without load)
Power loss	3 W
<b>Fieldbus interface</b>	
PROFIBUS DP	1 RS 485 interface
Connection	Sub-D socket, 9-pin
Baudrate	45.45 kBit/s ... 12 MBit/s
Protocol	PROFIBUS 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
<b>Electrical isolation</b>	
CH/PROFIBUS DP	functional insulation, rated insulation voltage 50 V <sub>eff</sub>
PROFIBUS DP/Supply	functional insulation, rated insulation voltage 50 V <sub>eff</sub>
All circuits/FE	functional insulation, rated insulation voltage 50 V <sub>eff</sub>
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
<b>Standard conformity</b>	
Electrical isolation	EN 50178
Electromagnetic compatibility	NE 21
Protection degree	IEC 60529
Fieldbus standard	EN 50170/2
Climatic conditions	IEC 60721
<b>Ambient conditions</b>	
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 60664
<b>Mechanical specifications</b>	
Connection type	terminals
Core cross-section	up to 2.5 mm <sup>2</sup>
Housing	60 mm x 115 mm x 107 mm
Protection degree	IP20
Mass	600 g
Mounting	DIN rail mounting
<b>Data for application in conjunction with hazardous areas</b>	
Connection to power link	connection to the data interface CH of KLD2-PL-Ex1.PA (conf. TÜV 00 ATEX 1531 X) connection to the data interface CH of KLD2-PL-1.PA (conf. TÜV 00 ATEX 1788 X)
Statement of conformity	TÜV 02 ATEX 1819 X , observe statement of conformity
Group, category, type of protection, temperature classification	⊕ II 3G EEx nA II T4
Directive conformity	
Directive 94/9 EC	EN 50021

**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](http://www.pepperl-fuchs.com).

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## 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
- Power Rail UPR-05 or PR-05
- Power feed module KFD2-EB.RPI or
- Power feed module for connecting to a redundant KFD2-EB.R2A.RPI power supply

## 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 50170/2. 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.