

Fieldbus Power Repeater KLD2-PR-1.IEC



- Output: 24 ... 26 V/400 mA
- For extension of fieldbus segments
- High-power trunk for high device count and long cable lengths
- Installation in Zone 2/Class I, Div. 2
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Fixed, high-availability terminator
- High efficiency, low heat dissipation
- Supply via Power Rail



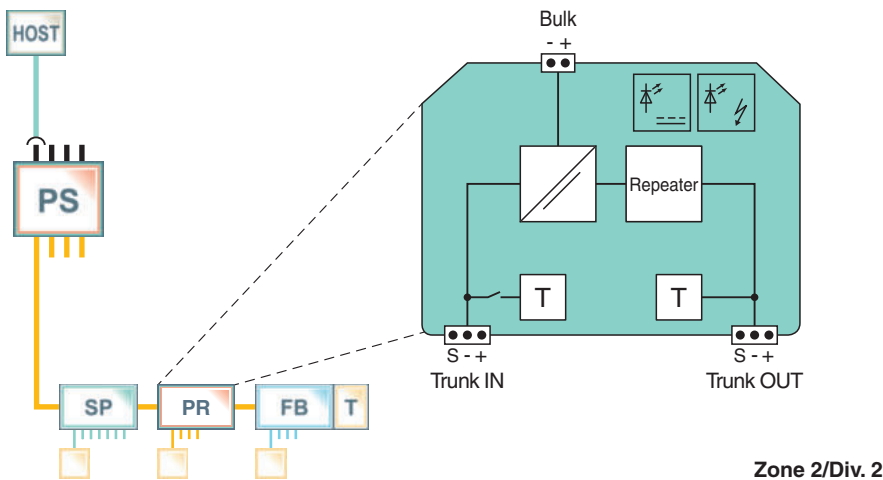
Function

The fieldbus power repeater is an all-in-one module with galvanic isolation for extending single fieldbus segments. It repeats the fieldbus signal thereby restoring waveform and signal level. The two segments interconnected are considered separate physical layers for extension of cable distance and device count.

Power output is designed for long cable lengths and device counts suiting the needs of most fieldbus applications. Device couplers provide explosion protection for live work at the spur where needed.

Availability and a long service life are achieved through a passive impedance filter and an optimized design for low heat dissipation. Modules can be mounted with no spacing required in any direction for an optimized and space-saving cabinet layout.

Connection



Technical Data

General specifications

Design / Mounting		Cabinet installation	
Supply			
Connection		Power Rail or terminals 47+, 48-	
Rated voltage	U _r	20 ... 35 V DC	
Ripple		≤ 10 %	
Rated current	I _r	380 mA ... 760 mA	
Fieldbus connection			
Field-side			
Connection		terminals 3, 15+; 2, 14-	

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

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Technical Data

Rated voltage	24 ... 26 V DC
Rated current	max. 400 mA
Terminating impedance	100 Ω , integrated
Host-side	
Connection	Power Rail or terminals 28, 40+; 29, 41-
Rated voltage	9 ... 32 V DC (supplied switch S2 in pos. I) 0 V DC (not supplied switch S2 in pos. II)
Terminating impedance	100 Ω switchable off and on via rotary switch S1: 1 -> on; 0 -> off
Galvanic isolation	
Field-side/Host-side	functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
Host-side/Supply	functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
Field-side/Supply	functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
All circuits/FE	functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
All circuits/screen	functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
Standard conformity	
Galvanic isolation	EN 50178
Electromagnetic compatibility	NAMUR NE 21
Degree of protection	IEC/EN 60529
Fieldbus standard	IEC 61158-2, ISA S 50.02 part 2
Climatic conditions	DIN IEC 721
Ambient conditions	
Classification	3K3
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-20 ... 85 °C (-4 ... 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	80 mm x 115 mm x 107 mm
Degree of protection	IP20
Mass	approx. 600 g
Mounting	DIN rail mounting
Data for application in connection with hazardous areas	
Certificate	TÜV 01 ATEX 1788X
Marking	Ⓔ 3G EEx nA II T4
Directive conformity	
Directive 94/9/EC	EN 50021:1999
International approvals	
FM approval	CoC 3015900
Approved for	Class I, Division 2, Groups A, B, C, D
General information	
Supplementary information	Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com .

Assembly

Release date: 2022-07-04 Date of issue: 2022-07-04 Filename: 099345_eng.pdf

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Additional Information

Accessories

Type	Model number	Description
Power rail	PR 03	Insert component for DIN mounting rail in accordance with DIN EN 50022, standard length 500 mm
Power rail	UPR03	Insert component with no snap lock for the DIN rail in accordance with DIN EN 50022, standard length 2 m
Power supply	KFD2-EB.D2A.B	Supplies power to the power rail redundantly with 24 V DC at a maximum current of 2 A, with pick-up
- Component	KFD2-EB.R2A.B	Supplies power to the power rail with 24 V DC at a maximum current of 2 A, with pick-up. To set up a redundant system, a second device can be used.
- Component	KFD2-EB2.B	Supplies power to the power rail with 24 V DC at a maximum current of 4 A, with pick-up and error message signal on the power rail.
Fieldbus termination	KMD0-FT-Ex	Termination of the IEC line. The fieldbus terminating resistor is connection to the last IEC bus station.
Fieldbus repeater (Entity)	KLD2-PR-Ex1.IEC	Isolator module and intrinsically safe power supply with repeater functionality for devices in accordance with the FISCO/ Entity model.
Fieldbus repeater (FISCO)	KLD2-PR-Ex1.IEC1	Isolator module and intrinsically safe power supply with repeater functionality for devices in accordance with the FISCO.
Fieldbus repeater (non-incendive)	KLD2-PR-NI1.IEC	Isolating power supply with repeater function for 'non incendive' design for field circuits.
Fieldbus power pack (non-intr. safe)	KLD2-STR-1.24.400.IEC	Isolating power supply, non-intrinsically safe.
Fieldbus power pack (non-incendive)	KLD2-STR-NI1.13.225.IEC	Isolating power supply for non-incendive design of field circuits.

Accessories

