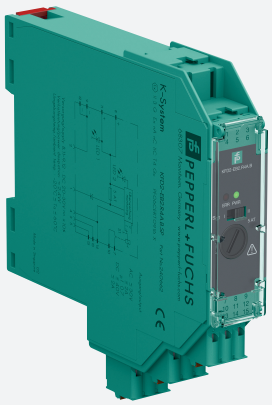


Redundant Power Feed Module
KFD2-EB2.R4A.B.SP

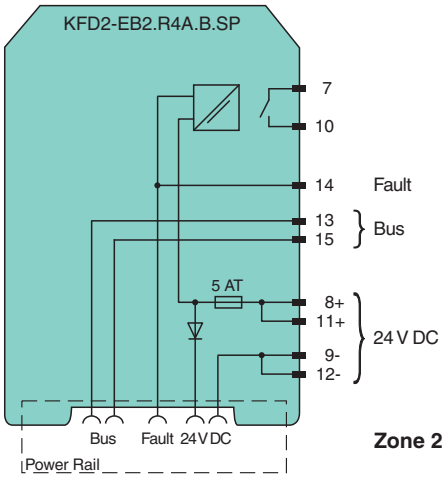
- Interface for Power Rail
- Used for redundant configuration
- Supply current ≤ 4 A
- Replaceable fuse
- Relay contact output, reversible
- LED status indication
- Connection via spring terminals with push-in connection technology

Power feed module with spring terminals, redundant supply

Function

The power feed module supplies the Power Rail with a voltage of 24 V DC and a maximum current of 4 A. The device is designed for applications requiring redundant power.
In the event of a device fault or a wiring fault of any isolator on the Power Rail, the collective error messaging relay alerts the controller via a binary I/O point. This relay can be configured as normally-open or normally-closed.
A green LED on the front of the device indicates the power state, and a red LED lights up during a fault condition.
Additionally, the bus implemented in the Power Rail is forwarded to the terminals 13 and 15 for usage with the RS-485 connection of the KFD2-WAC2-Ex1.D device. Terminal 14 is only for test purposes.
In the sense of functional safety (SIL) the device provides no dangerous failures. Thereby the safe condition of the supplied isolators must be defined as the de-energized state. Thus the device will not influence the safety calculation or the SIL value.
This device is compatible with all versions of the Power Rail and provides group fusing.
Note: Redundant systems require 2 KFD2-EB.R4A.B power feed modules.

Connection



Technical Data

Supply		
Connection		terminals 11+, 12- terminals 8+, 9-
Rated voltage	U_r	20 ... 30 V DC The maximum rated operating voltage of the devices plugged onto the Power Rail must not be exceeded.
Fusing		5 AT/250 V AC recommended maximum utilization of the fuse: 80 %
Power dissipation		≤ 2.4 W

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Technical Data

Output	
Connection	Power Rail
Output rated operating current	max. 4 A
Output voltage	$U_i \geq$ rated voltage $U_r = U_i$ - 0.6 V
Fault signal	relay output: NO contact
Contact loading	30 V AC/ 2 A / cos ϕ ≥ 0.7 ; 40 V DC/ 2 A
Energized/De-energized delay	approx. 20 ms / approx. 20 ms
Indicators/settings	
Display elements	LEDs
Control elements	DIP switch
Configuration	via DIP switches
Labeling	space for labeling at the front
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 (industrial locations)
Conformity	
Electromagnetic compatibility	NE 21:2006
Degree of protection	IEC 60529:2001
Ambient conditions	
Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Mechanical specifications	
Degree of protection	IP20
Connection	spring terminals
Mass	approx. 100 g
Dimensions	20 x 119 x 115 mm (0.8 x 4.7 x 4.5 inch) (W x H x D) , housing type B2
Mounting	on 35 mm DIN mounting rail acc. to EN 60715:2001
Data for application in connection with hazardous areas	
Certificate	PF 06 CERT 0916 X
Marking	⟨Ex⟩ II 3G Ex nA nC IIC T4 Gc
Directive conformity	
Directive 2014/34/EU	EN IEC 60079-0:2018+AC:2020 , EN 60079-15:2010
International approvals	
FM approval	
Control drawing	116-0160
UL approval	E106378
CSA approval	CoC 1051840
IECEx approval	
IECEx certificate	IECEx UL 16.0051X
IECEx marking	Ex nA nC IIC T4 Gc
General information	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com.

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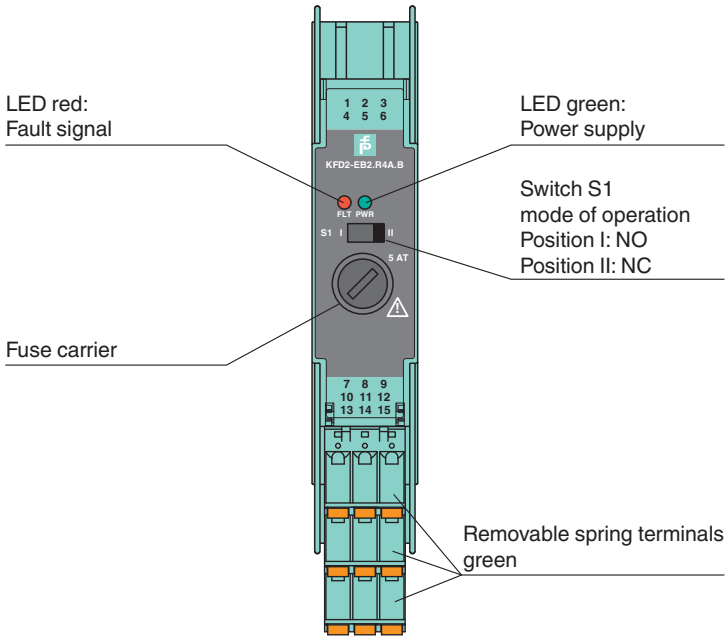
Assembly

Front view



Matching System Components

	UPR-03	Universal Power Rail with end caps and cover, 3 conductors, length: 2 m
	UPR-03-M	Universal Power Rail with end caps and cover, 3 conductors, length: 1,6 m
	UPR-03-S	Universal Power Rail with end caps and cover, 3 conductors, length: 0.8 m
	UPR-05	Universal Power Rail with end caps and cover, 5 conductors, length: 2 m
	UPR-05-S	Universal Power Rail with end caps and cover, 5 conductors, length: 0.8 m
	K-DUCT-GY-UPR-03	Profile rail with UPR-03-* insert, 3 conductors, wiring comb field side, gray
	K-DUCT-GY-UPR-05	Profile rail with UPR-05-* insert, 5 conductors, wiring comb field side, gray
	K-DUCT-BU-UPR-03	Profile rail with UPR-03- * insert, 3 conductors, wiring comb field side, blue
	K-DUCT-BU-UPR-05	Profile rail with UPR-05- * insert, 5 conductors, wiring comb field side, blue

Accessories

	KF-CTT-5GN	

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Accessories

	KF-CP	Red coding pins, packaging unit: 20 x 6

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