



# Redundant Power Feed Module

## KFD2-EB2.R4A.B.SP

- Interface for Power Rail
- Used for redundant configuration
- Supply current  $\leq 4$  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.

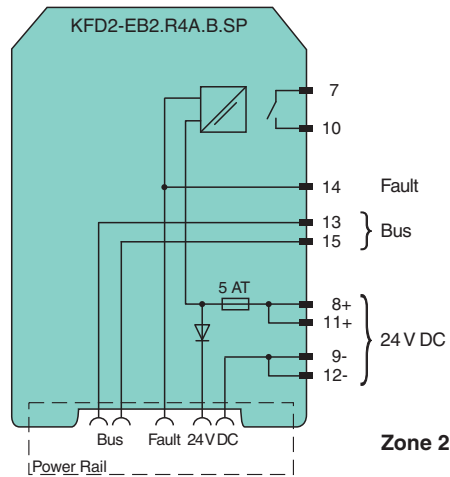
Additionally, the bus implemented in the Power Rail is forwarded to the terminals 13 and 15 for usage with the RS-485 connection of the KFD2-WAC2-Ex1.D device. Terminal 14 is only for test purposes.

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-<br>terminals 8+, 9-   |
| Rated voltage     | $U_r$ 20 ... 30 V DC<br>The maximum rated operating voltage of the devices plugged onto the Power Rail must not be exceeded. |
| Fusing            | 5 AT/250 V AC<br>recommended maximum utilization of the fuse: 80 %   |
| Power dissipation | $\leq 2.4$ W   |

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

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## Technical Data

|  |   |
|--|---|
| <b>Output</b>  |   |
| Connection   | Power Rail  |
| Output rated operating current                                 | max. 4 A  |
| Output voltage   | $U_i \geq \text{rated voltage } U_r = U_i - 0.6 \text{ V}$  |
| Fault signal   | relay output: NO contact  |
| Contact loading  | 30 V AC/ 2 A / $\cos \phi \geq 0.7$ ; 40 V DC/ 2 A  |
| Energized/De-energized delay                                   | approx. 20 ms / approx. 20 ms   |
| <b>Indicators/settings</b>                                     |   |
| Display elements   | LEDs  |
| Control elements   | DIP switch  |
| Configuration  | via DIP switches  |
| Labeling   | space for labeling at the front   |
| <b>Directive conformity</b>                                    |   |
| Electromagnetic compatibility                                  |   |
| Directive 2014/30/EU   | EN 61326-1:2013 (industrial locations)  |
| <b>Conformity</b>  |   |
| Electromagnetic compatibility                                  | NE 21:2006  |
| Degree of protection   | IEC 60529:2001  |
| <b>Ambient conditions</b>                                      |   |
| Ambient temperature  | -40 ... 60 °C (-40 ... 140 °F)<br>extended ambient temperature range up to 70 °C (158 °F), refer to manual for necessary mounting conditions  |
| <b>Mechanical specifications</b>                               |   |
| 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  |
| <b>Data for application in connection with hazardous areas</b> |   |
| Certificate  | UL 22 ATEX 2853 X   |
| Marking  | Ⓜ II 3G Ex ec nC IIC T4 Gc  |
| Directive conformity   |   |
| Directive 2014/34/EU   | EN IEC 60079-0:2018+AC:2020 , EN IEC 60079-7:2015+A1:2018 , EN IEC 60079-15:2019  |
| <b>International approvals</b>                                 |   |
| FM approval  | FM 22 US 0031 X   |
| Control drawing  | 116-0160  |
| UL approval  | E106378   |
| CSA approval   | CoC 1051840   |
| IECEX approval   |   |
| IECEX certificate  | IECEX UL 16.0051X   |
| IECEX marking  | Ex ec nC IIC T4 Gc  |
| <b>General information</b>                                     |   |
| Supplementary information                                      | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> . |

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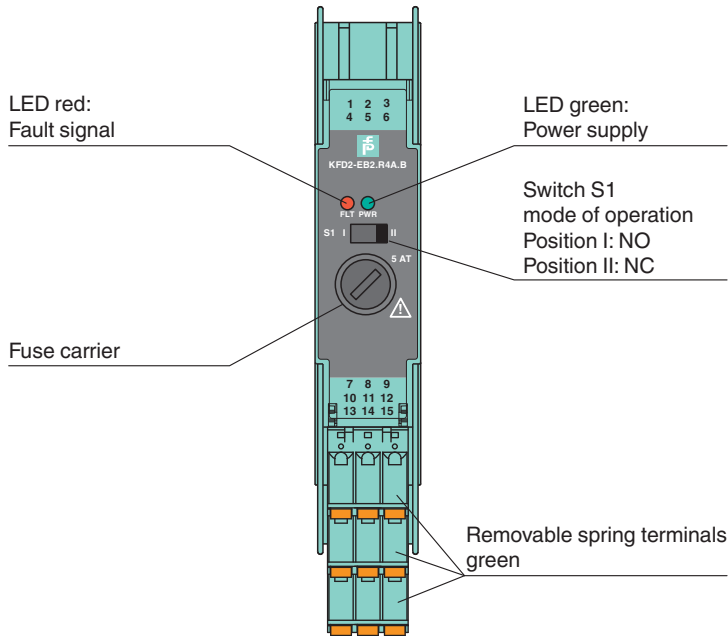
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




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## Assembly



**Front view**



## Matching System Components

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

## Accessories

|   |                   |  |
|---|-------------------|--|
|  | <b>KF-CTT-5GN</b> | Terminal block for KF modules, 3-pin spring terminal, with test sockets, green |
|  | <b>KF-CP</b>      | Red coding pins, packaging unit: 20 x 6  |

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