



Fieldbus Power Hub, Compact Power Supply Module

HCD2-FBPS-1.23.500



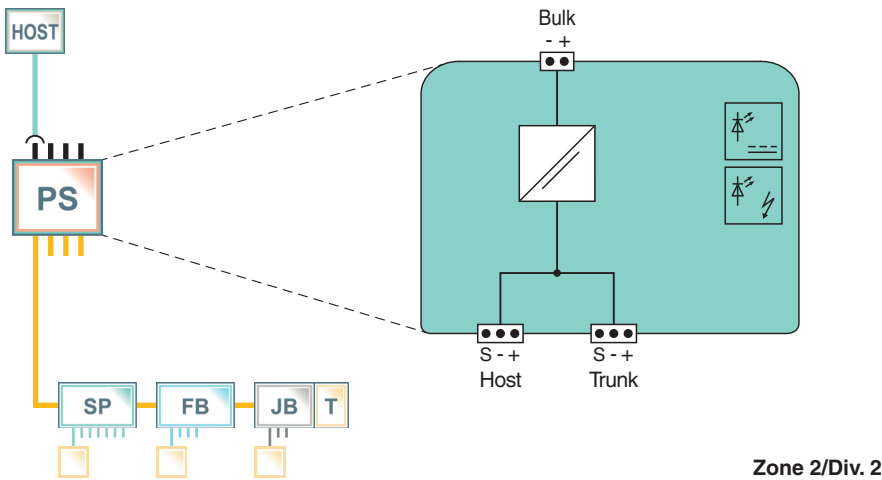
- Output: 21 ... 23 V/500 mA
- Voltage limitation for Entity ic and Ex nL
- With galvanic isolation
- Installation in Zone 2/Class I, Div. 2
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Highest efficiency, lowest heat dissipation for highest packing density
- Hot swappable in redundant configuration
- Module exchange without tools during operation



Function

This Power Supply Module is a system component for the FieldConnex® Power Hub and can be plugged into the motherboard. It adapts current and voltage for the supply of fieldbus segments and field devices. The combination of this power supply, selected motherboards and R2 Segment Protector provide outputs certified for explosion protection Entity Ex ic and Ex nL. Reliability of communication is enhanced through galvanic isolation between segment and bulk power supply. Two LEDs indicate power and status. In redundant configuration two modules are connected in parallel via simple circuits ensuring seamless operation.

Connection



Technical Data

| General specifications | | | |
|------------------------|----------------------|------------------|--|
| Design / Mounting | Motherboard based | | |
| Supply | | | |
| Rated voltage | U_r | 19.2 ... 35 V DC | |
| Power dissipation | | typ. 1.2 W | |
| Fieldbus interface | | | |
| Rated voltage | U_N | 21 ... 23 V | |
| Rated current | I_N | 500 ... 10 mA | |
| Short-circuit current | | 550 mA | |
| Terminating resistor | motherboard specific | | |

Release date: 2021-01-12 Date of issue: 2021-01-12 Filename: 275283_eng.pdf

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

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Technical Data

| | | |
|--|-------|---|
| Indicators/operating means | | |
| LED ERR | | red flashing: short-circuit or undervoltage at output |
| LED PWR | | green if $U_{out} > 21$ V |
| Galvanic isolation | | |
| Fieldbus segment/Supply | | functional insulation acc. to IEC 62103, rated insulation voltage 250 V AC |
| Directive conformity | | |
| Electromagnetic compatibility | | |
| Directive 2014/30/EU | | EN 61326-1:2013 |
| Standard conformity | | |
| Electromagnetic compatibility | | NE 21:2011 |
| Degree of protection | | IEC 60529 |
| Fieldbus standard | | IEC 61158-2 |
| Shock resistance | | EN 60068-2-27 |
| Vibration resistance | | EN 60068-2-6 |
| Ambient conditions | | |
| Ambient temperature | | -40 ... 70 °C (-40 ... 158 °F) |
| Storage temperature | | -40 ... 85 °C (-40 ... 185 °F) |
| Relative humidity | | < 95 % non-condensing |
| Shock resistance | | 15 g 11 ms |
| Vibration resistance | | 1 g , 10 ... 150 Hz |
| Pollution degree | | max. 2, according to IEC 60664 |
| Corrosion resistance | | acc. to ISA-S71.04-1985, severity level G3 |
| Mechanical specifications | | |
| Connection type | | motherboard specific |
| Core cross-section | | motherboard specific |
| Housing material | | Polycarbonate |
| Housing width | | 12.5 mm |
| Housing height | | 106 mm |
| Housing depth | | 128 mm |
| Degree of protection | | IP20 |
| Mass | | approx. 150 g |
| Mounting | | motherboard mounting |
| Data for application in connection with hazardous areas | | |
| Outputs | | |
| Voltage | U_o | 24 V |
| Certificate | | TÜV 10 ATEX 555761X |
| Marking | | Ⓜ II 3G Ex nA IIC T4 Gc |
| Directive conformity | | |
| Directive 2014/34/EU | | EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010 |
| International approvals | | |
| FM approval | | |
| FM certificate | | FM 19 US 0015 X and FM 19 CA 0011 X |
| FM marking | | AEx/Ex ec IIC T4 |
| IECEX approval | | |
| IECEX certificate | | IECEX TUN 13.0037X |
| IECEX marking | | Ex ec IIC T4 Gc |
| Certificates and approvals | | |
| Marine approval | | DNV A-14038 |
| 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



Matching System Components

| | | |
|--|--------------------|--|
| | MBHC-FB-8R.IOM | |
| | MBHC-FB-4* | |
| | MBHC-FB-4.GT* | |
| | MBHC-FB-4R* | |
| | MBHC-FB-4R.YO* | |
| | MBHC-FB-4.YO* | |
| | MBHC-FB-8R* | |
| | MBHC-FB-8R.RH* | |
| | MBHC-FB-8R.YO* | |
| | HCD2-FBPS-1.23.500 | |
| | MBHC-FB-8R.HSC* | |

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Matching System Components



MBHC-FB-4.HSC*



MBHC-FB-4R.HSC*



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