



Fieldbus Power Supply

FieldConnex® Fieldbus

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

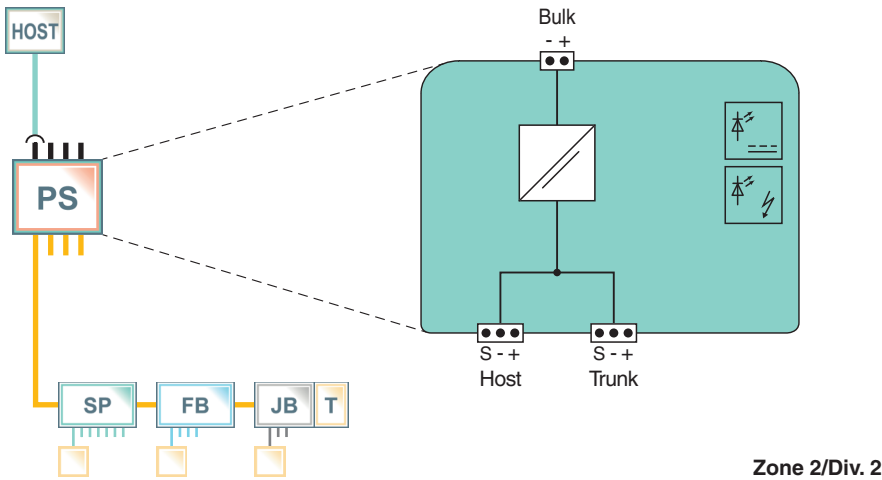
Fieldbus power supply, module for fieldbus power hub



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	
Installation in hazardous area		Zone 2 / Div. 2	
Supply			
Rated voltage	U_r	19.2 ... 35 V DC	
Power dissipation		typ. 1.2 W	
Fieldbus connection			
Rated voltage	U_N	21 ... 23 V	
Rated current	I_N	500 ... 10 mA	
Short-circuit current		550 mA	

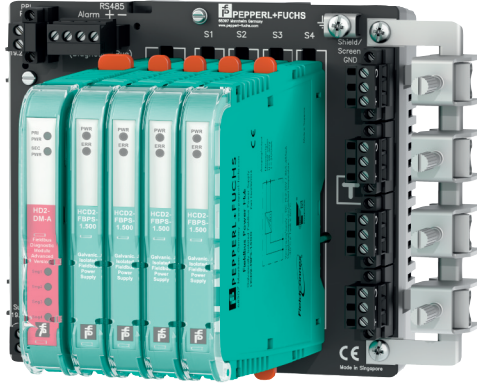
Release date: 2024-09-20 Date of issue: 2024-09-20 Filename: 275283_eng.pdf

Technical Data

Terminating resistor		motherboard specific
Indicators/operating means		
LED ERR		red flashing: short-circuit or undervoltage at output
LED PWR		green if $U_{out} > 21\text{ V}$
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		
Core cross section		motherboard specific
Housing material		Polycarbonate
Degree of protection		IP20
Mass		approx. 150 g
Dimensions		
Height		106 mm
Width		12.5 mm
Depth		128 mm
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 ec IIC T4 Gc
Directive conformity		
Directive 2014/34/EU		EN IEC 60079-0:2018+AC:2020 , EN IEC 60079-7:2015+A1:2018 , EN 60079-11:2012
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
General information		
Supplementary information		Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see www.pepperl-fuchs.com .

Release date: 2024-09-20 Date of issue: 2024-09-20 Filename: 275283_eng.pdf

Assembly



Release date: 2024-09-20 Date of issue: 2024-09-20 Filename: 275283_eng.pdf