



Fieldbus Power Hub, Compact Power Supply Module



HCD2-FBPS-1.23.500

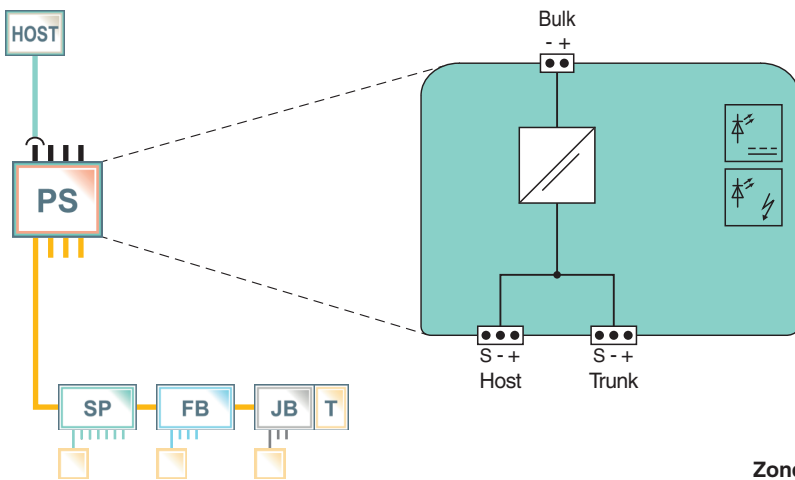
- Output: 21 ... 23 V/500 mA
- Voltage limitation for Entity ic and Ex nL
- With galvanic isolation
- Installation in Zone 2/Class I, Div. 2
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Highest efficiency, lowest heat dissipation for highest packing density
- Hot swappable in redundant configuration
- 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



Zone 2/Div. 2

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 connection			
Rated voltage	U_N	21 ... 23 V	
Rated current	I_N	500 ... 10 mA	
Short-circuit current		550 mA	
Terminating resistor	motherboard specific		

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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 $U_{out} > 21\text{ V}$
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		
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	Fieldbus Power Hub, Compact Motherboard, Common Interface
	MBHC-FB-4*	Compact Fieldbus Power Hub Motherboard with Common Interface
	MBHC-FB-4R*	Compact Fieldbus Power Hub Motherboard with Common Interface
	MBHC-FB-4R.YO*	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111
	MBHC-FB-4.YO*	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111
	MBHC-FB-8R*	Compact Fieldbus Power Hub Motherboard with Common Interface
	MBHC-FB-8R.RH*	Compact Fieldbus Power Hub Motherboard with Redundant Host Terminals
	MBHC-FB-8R.YO*	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111
	MBHC-FB-4.HSC*	Compact Fieldbus Power Hub Motherboard with Host System Connectors
	MBHC-FB-4R.HSC*	Compact Fieldbus Power Hub Motherboard with Host System Connectors

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