

Features

- 4 segments, redundant, individual modules per segment
- Customized for Honeywell, C-Series
- High-power trunk: Live work on devices in any hazardous area
- Optimized for size and quality, low heat dissipation
- For FOUNDATION Fieldbus H1
- Optional advanced diagnostics
- Passive impedance and CREST technology for high reliability
- Installation in Zone 2/Div. 2

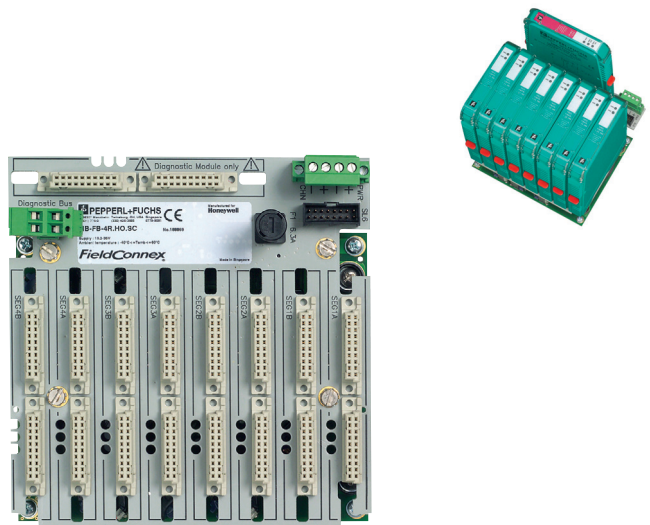
Function

The FieldConnex® Universal Power Hub is a modular fieldbus power supply, providing the most options for most reliable communication. It supports explosion protection e.g. the High-Power Trunk for longest cable run and highest device count. The Power Hub supports optional Advanced Diagnostics for fast fieldbus commissioning and online monitoring.

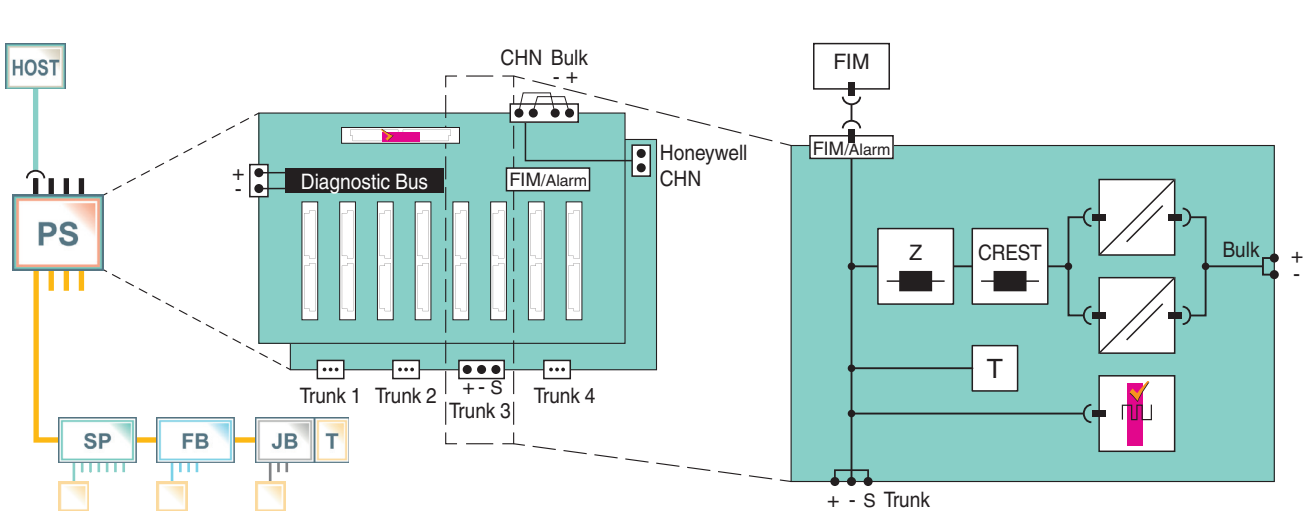
The motherboard is the mounting plate for installation in the Honeywell C-channel. It connects to existing bulk power, communication and fault indication. Sockets for all modules enable simple installation and replacement without tools. For power redundancy with seamless transfer, pairs of modules feed each segment.

Availability and a long service life are achieved through: only one passive impedance filter per segment with CREST for superior signal transmission, optimized design for low power dissipation and high-availability fieldbus termination. Any mounting direction allows optimized and space-saving cabinet layout.

Assembly



Connection



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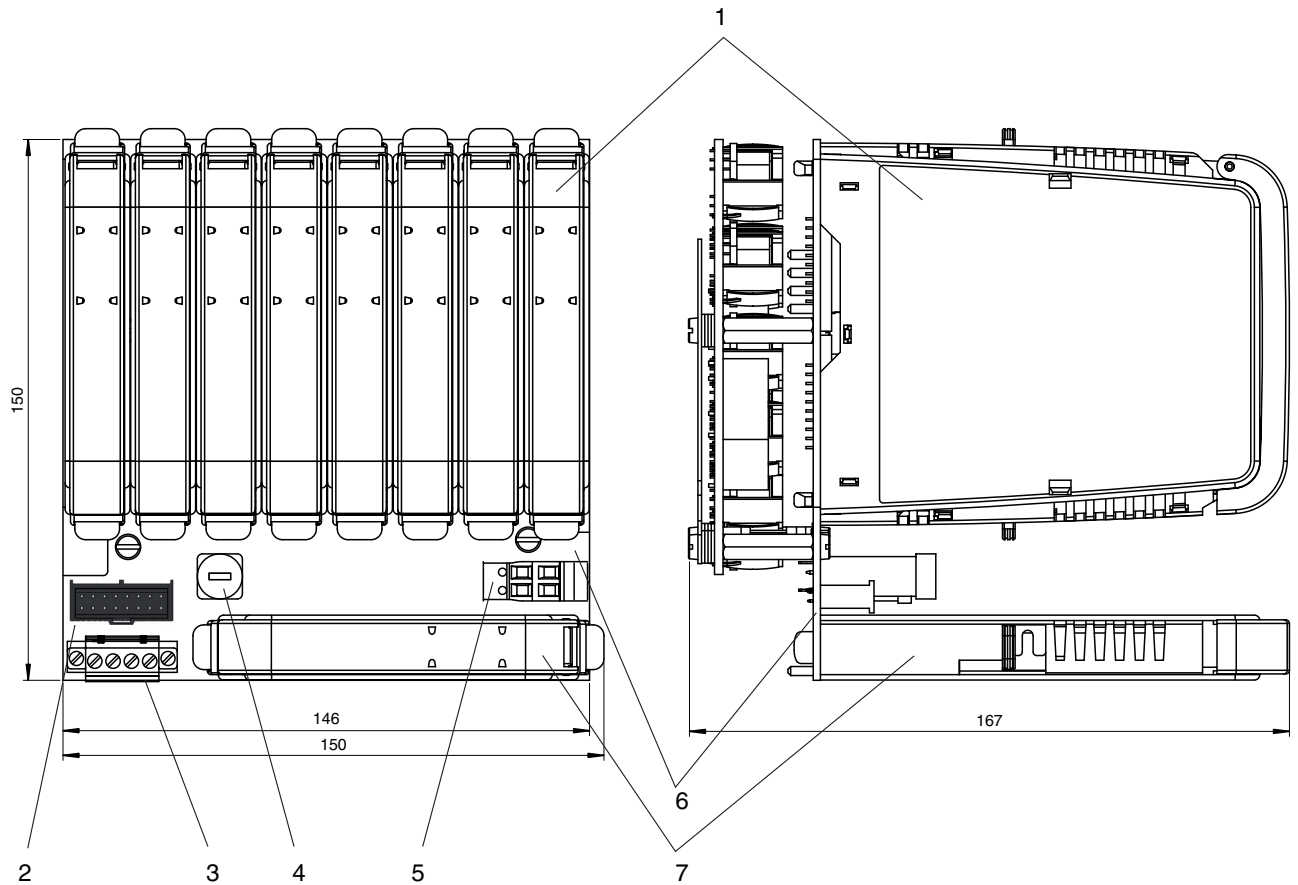
Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

General specifications		
Design / Mounting		Motherboard based
Supply		
Connection		Channel or external supply
Rated voltage	U_r	19.2 ... 35 V SELV/PELV
Rated current	I_r	6.3 A
Power dissipation		typ. 0.2 W per segment
Fieldbus interface		
Number of segments		
Redundant		4
Host-side		Honeywell Series C 300 System Connector
Terminating resistor		integrated 100 Ω
Indicators/operating means		
Fault signal		to Honeywell C 300 System
Galvanic isolation		
Fieldbus segment/Fieldbus segment		functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
Fieldbus segment/Supply		functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V _{eff}
Directive conformity		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2006
Standard conformity		
Electromagnetic compatibility		NE 21:2006
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 ... 60 °C (-40 ... 140 °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
Mechanical specifications		
Connection type		Honeywell channel or plug with screw flange
Core cross-section		2.5 mm ² if supplied via plug with screw flange
Housing width		150 mm
Housing height		146 mm
Housing depth		75 mm
Degree of protection		IP00
Mass		approx. 720 g
Mounting		Honeywell channel
International approvals		
FM approval		
FM certificate		FM 19 US 0015 X and FM 19 CA 0011 X
FM marking		AEx/Ex ec IIC T4
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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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Dimensions



Description:

- 1 Power Supply Module, see separate data sheet
- 2 Honeywell Series C System plug connector
- 3 Terminal for external power
- 4 Fuse carrier with integrated fuse T 6.3 A, 250 V
- 5 Terminal for diagnostic bus
- 6 Motherboard MB-FB-4R.HO.SC
- 7 Diagnostic Module, see separate data sheet

Compatible power modules

		HD2-FBPS-1.17.500		HD2-FBPS-1.23.500		HD2-FBPS-1.25.360		HD2-FBPS-1.500	
Power Output									
Voltage (V)		15 ... 17	21 ... 23	25 ... 28	28 ... 30				
Current (mA)		500	500	360	500				
Limit U ₀ (V)		17.5	24	-	-				
Device in ...	Type of Protection					Required Installation Components			
Zone 0/Div. 1	Intrinsically safe Ex ia			■	■	FieldBarrier			
Zone 1/Div. 1	Intrinsically safe Ex ia			■	■	FieldBarrier			
Zone 1/Div. 1	Flameproof Ex d			■	■	Segment Protector R-SP-E12 or any Segment Protector installed in Zone 2			
Zone 2	Intrinsically safe Ex ic (Entity), U ₀ =30 V			■	■	Selected Segment Protectors			
Div. 2	Non-incendive	■	■	■	■	Any Segment Protector; power module selection depends on voltage of field device			
Safe Area	No specific type of protection			■	■	Segment Protector recommended			

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Diagnostic module selection

The following diagnostic modules are compatible with this motherboard.

Type code	Description
HD2-DM-B	Diagnostic Module, basic version
HD2-DM-A	Diagnostic Module, advanced version
HD2-DM-A.RO	Diagnostic Module, advanced version, relay output

The stationary and mobile Advanced Diagnostic Module (ADM) and related components provide measurement tools for the fieldbus physical layer. The ADM monitors many quality indicating values of the fieldbus physical layer. An expert system, which is included, analyzes the values and issues easy to understand messages indicating cause and remedy. The ADM is recommended for:

- **Faster commissioning and plant start-up:** Installation issues are known and corrected before loop check commences
- **Reliable operation through online monitoring:** The quality of the physical layer and installation is monitored making fieldbus a manageable asset
- **Efficient troubleshooting:** An expert system guides the user through issues and faults in the fieldbus installation

Many other tools are included that enhance fieldbus installation and upkeep. Please see datasheet on HD2-DM-A.

Accessories

Type code	Description
ACC-MB-HDC	Diagnostic link cable, length 6 cm

Installation note

see manual