

**Features**

- 4 segments, individual modules per segment
- Customizable for any host system
- High-Power Trunk: Live work on devices in any hazardous area
- Features for best signal quality, low heat dissipation
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Optional Advanced Diagnostics
- Passive impedance and CREST technology for high reliability
- Supports Ex ic/nL voltage limitation
- Installation in Zone 2/Div. 2

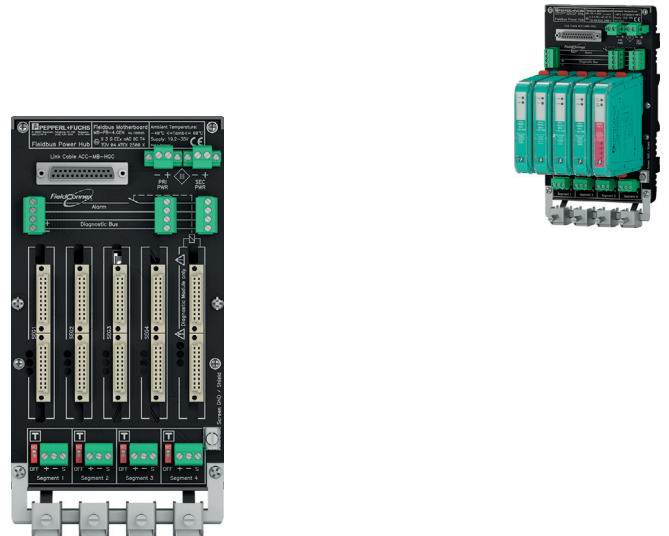
**Function**

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.

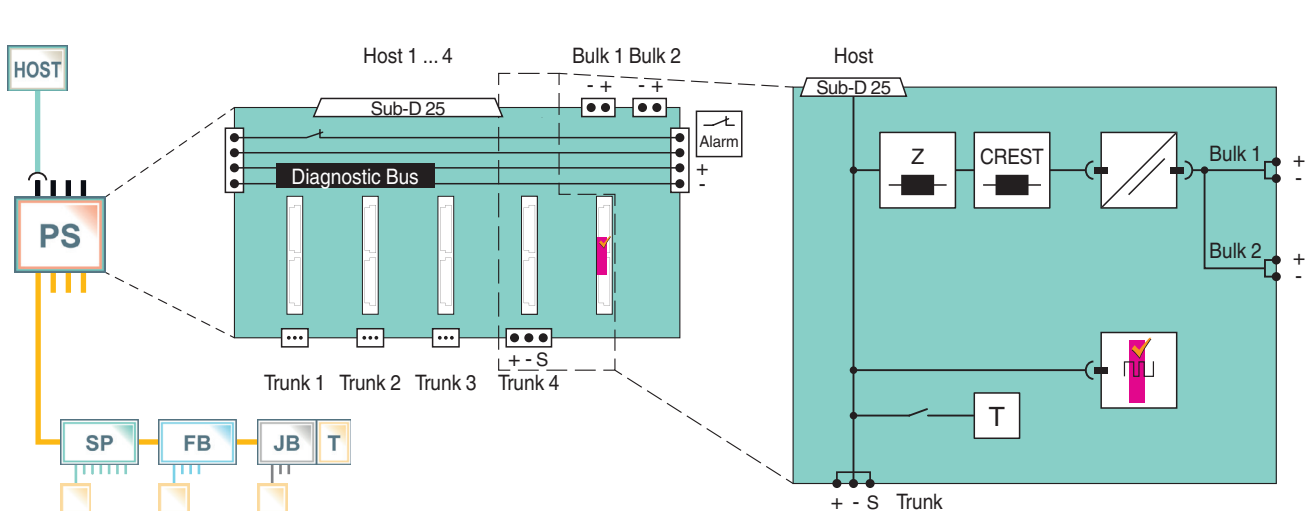
The motherboard is the wiring interface and mounting plate with a DB-25 connector for PROFIBUS PA gateway or customizable cable connections to any DCS. Sockets for individual power modules enable simple installation and can be replaced without tools. Certain motherboards enable power redundancy with 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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
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<b>Supply</b>		
Connection		redundant
Rated voltage	$U_n$	19.2 ... 35 V SELV/PELV
Rated current	$I_n$	16 A
<b>Fieldbus interface</b>		
Number of segments		
Simplex		4
Terminating resistor		selectable 100 $\Omega$
<b>Indicators/operating means</b>		
Fault signal		VFC alarm output via connectors
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2004/108/EC		EN 61326-1:2013
<b>Standard conformity</b>		
Electrical isolation		IEC 62103
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
Corrosion resistance		acc. to ISA-S71.04-1985, severity level G3
<b>Ambient conditions</b>		
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
Pollution Degree		max. 2, according to IEC 60664
Corrosion resistance		acc. to ISA-S71.04-1985, severity level G3
<b>Mechanical specifications</b>		
Connection type		screw terminals
Core cross-section		2.5 mm <sup>2</sup>
Housing material		Polycarbonate
Housing width		125 mm
Housing height		220 mm
Housing depth		65 mm
Degree of protection		IP20
Mass		approx. 850 g
Mounting		DIN mounting rail
Coating		conformal coated
<b>Data for application in connection with Ex-areas</b>		
Statement of conformity		TÜV 04 ATEX 2500 X
Group, category, type of protection, temperature class		 II 3 G Ex nA IIC T4 Gc
Directive conformity		
Directive 94/9/EC		EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010
<b>International approvals</b>		
FM approval		CoC 3024816, CoC 3024816C
Approved for		Class I, Division 2, Groups A, B, C, D, T4 / Class I, Zone 2, AEx/Ex nA IIC T4
IECEX approval		IECEX TUN 13.0038X
Approved for		Ex nA IIC T4 Gc
<b>General information</b>		
Supplementary information		Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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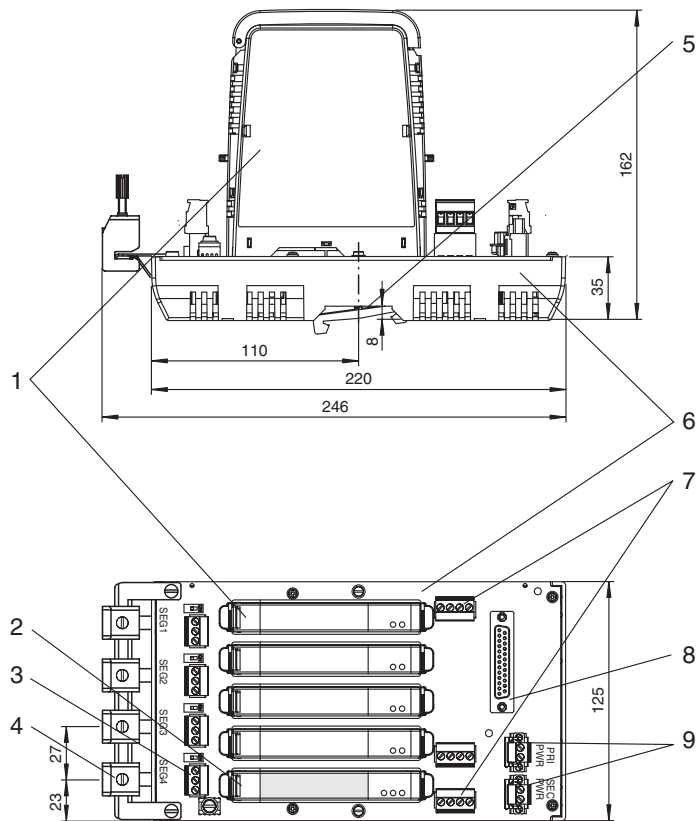
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Dimensions



Description:

- 1 Power Modules, see separate data sheets
- 2 Diagnostic Module, see separate data sheet
- 3 Connections for fieldbus trunk, terminator switch
- 4 Screening/earthing kit for trunk cables shield, optional accessory
- 5 Mounting slot for DIN rail
- 6 Motherboard MB-FB-4.GEN
- 7 Connections for alarm voltage free contact and diagnostics bus  
Diagnostics link cable, optional accessory
- 8 SUB-D Host/Gateway-Interface
- 9 Connections for redundant bulk power supply

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**Compatible power modules**

	HD2-FBPS-1.17.500	HD2-FBPS-1.23.500	HD2-FBPS-1.25.360	HD2-FBPS-1.500	HD2-FBCL-1.500	
<b>Power Output</b>						
Voltage (V)	15 ... 17	21 ... 23	25 ... 28	28 ... 30	.. <sup>1</sup>	
Current (mA)	500	500	360	500	500	
Limit U <sub>0</sub> (V)	17.5	24	-	-	-	
<b>Device in ...</b>	<b>Type of Protection</b>					<b>Required Installation Components</b>
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 (FISCO)					Selected Segment Protectors
Zone 2	Intrinsically safe Ex ic (Entity)					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

<sup>1</sup> follows bulk power supply

**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.

**Connection to DCS**

**PROFIBUS – motherboard / Sub-D cable connection**

PROFIBUS Power Hub Gateway Modules are mounted on a separate motherboard that is connected to the motherboard with the power modules via a Sub-D cable. The Sub-D cable comes with the gateway motherboard.

Type code	Description
Motherboards:	
MB-FB-GT	Gateway Motherboard
MB-FB-GTR	Gateway Motherboard, redundant
Gateway Module:	
HD2-GTR-4.PA	PROFIBUS DP/PA Gateway Module

**Invensys – cable connection**

The motherboard can be connected to Foxboro I/A Series with FBM228 host modules using a dedicated system cable

Type code	Description
ACC-MB-HGC.FOX.010	FieldConnex Power Hub system cable for Foxboro FBM228, length 1 m
ACC-MB-HGC.FOX.020	FieldConnex Power Hub system cable for Foxboro FBM228, length 2 m
ACC-MB-HGC.FOX.030	FieldConnex Power Hub system cable for Foxboro FBM228, length 3 m
ACC-MB-HGC.FOX.050	FieldConnex Power Hub system cable for Foxboro FBM228, length 5 m
ACC-MB-HGC.FOX.100	FieldConnex Power Hub system cable for Foxboro FBM228, length 10 m
ACC-MB-HGC.FOX.150	FieldConnex Power Hub system cable for Foxboro FBM228, length 15 m
ACC-MB-HGC.FOX.200	FieldConnex Power Hub system cable for Foxboro FBM228, length 20 m

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### Honeywell – cable connection

The motherboard can be connected to Honeywell Series C with FIM4/FIM8 host modules using a dedicated system cable.

Type code	Description
ACC-MB-HGC.HON.010	FieldConnex Power Hub system cable for Honeywell C300, length 1 m
ACC-MB-HGC.HON.020	FieldConnex Power Hub system cable for Honeywell C300, length 2 m
ACC-MB-HGC.HON.030	FieldConnex Power Hub system cable for Honeywell C300, length 3 m
ACC-MB-HGC.HON.050	FieldConnex Power Hub system cable for Honeywell C300, length 5 m
ACC-MB-HGC.HON.100	FieldConnex Power Hub system cable for Honeywell C300, length 10 m
ACC-MB-HGC.HON.150	FieldConnex Power Hub system cable for Honeywell C300, length 15 m
ACC-MB-HGC.HON.200	FieldConnex Power Hub system cable for Honeywell C300, length 20 m

### Accessories

Type code	Description
ACC-MB-HSK	Screening/earthing kit
ACC-MB-HDC	Diagnostic link cable, length 6 cm

### Installation note

see manual