



# Universal Fieldbus Power Hub, Motherboard for Invensys FBM 228

## FBTA-228-BPFB-8



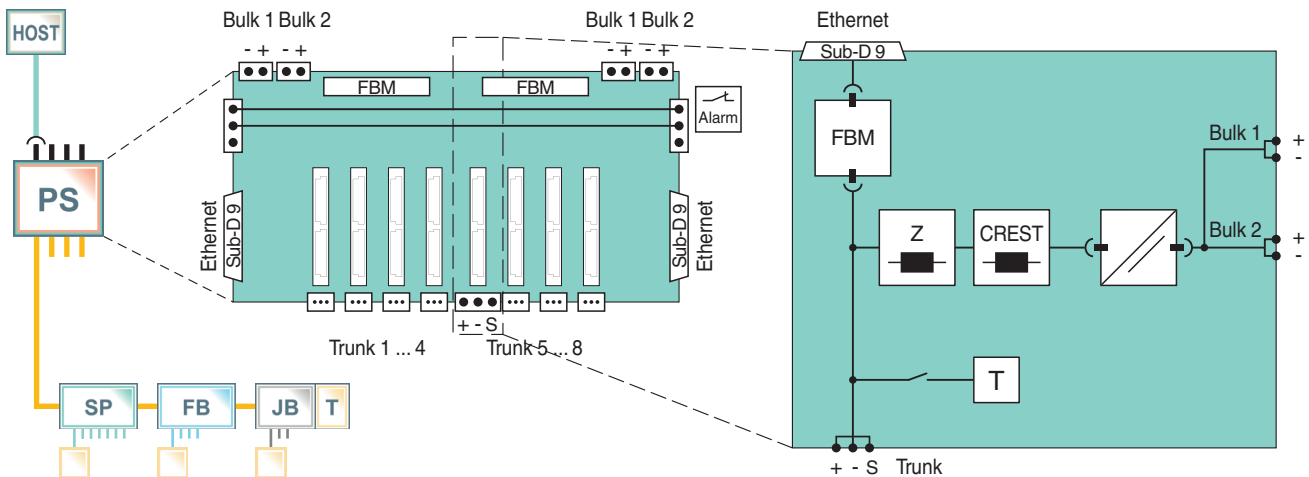
- 8 segments, individual modules per segment
- Supports all PLC and PCS hosts
- High-power trunk: Live work on devices in any hazardous area
- Features for best signal quality, low heat dissipation
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Optional advanced diagnostics
- Passive impedance and CREST 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 sockets for FBM-228 host modules. Individual power modules enable simple installation and replacement without tools. 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.

### Connection



### Technical Data

General specifications	
Design / Mounting	Motherboard based
Supply	
Connection	redundant
Rated voltage	$U_r$ 21.6 ... 25.2 V
Rated current	$I_r$ 16 A
Fieldbus connection	
Number of segments	
Simplex	8

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

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## Technical Data

Host-side	Invensys FBM 228
Terminating resistor	fixed
<b>Indicators/operating means</b>	
Fault signal	open collector, switched low
<b>Galvanic isolation</b>	
Fieldbus segment/Fieldbus segment	functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V <sub>eff</sub>
Fieldbus segment/Supply	functional insulation acc. to DIN EN 50178, rated insulation voltage 50 V <sub>eff</sub>
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
<b>Standard conformity</b>	
Electromagnetic compatibility	
Degree of protection	NE 21:2006
Fieldbus standard	IEC 60529
Shock resistance	IEC 61158-2
Vibration resistance	EN 60068-2-27
<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
<b>Mechanical specifications</b>	
Connection type	Cage tension spring terminals
Core cross section	max. 2.5 mm <sup>2</sup>
Housing material	ABS
Housing width	242 mm
Housing height	250 mm
Housing depth	55 mm
Degree of protection	IP00
Mass	approx. 1.3 kg
Mounting	DIN mounting rail
<b>Data for application in connection with hazardous areas</b>	
Certificate	TÜV 05 ATEX 2890 X
Marking	Ⓔ II 3G EEx nA II T4
Directive conformity	
Directive 94/9/EC	EN 60079-15:2003
<b>International approvals</b>	
FM approval	
FM certificate	FM 19 US 0015 X and FM 19 CA 0011 X
FM marking	AEx/Ex ec IIC T4
<b>General information</b>	
Supplementary information	Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

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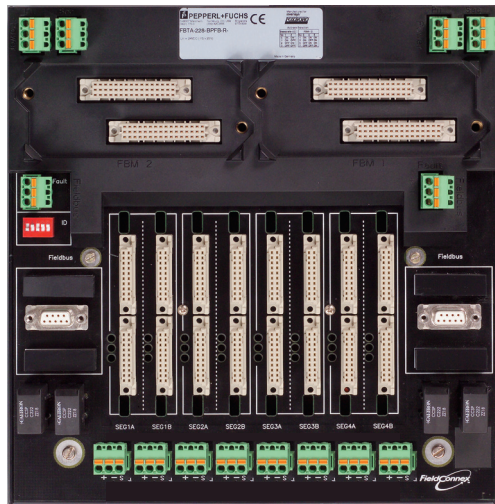
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## Assembly

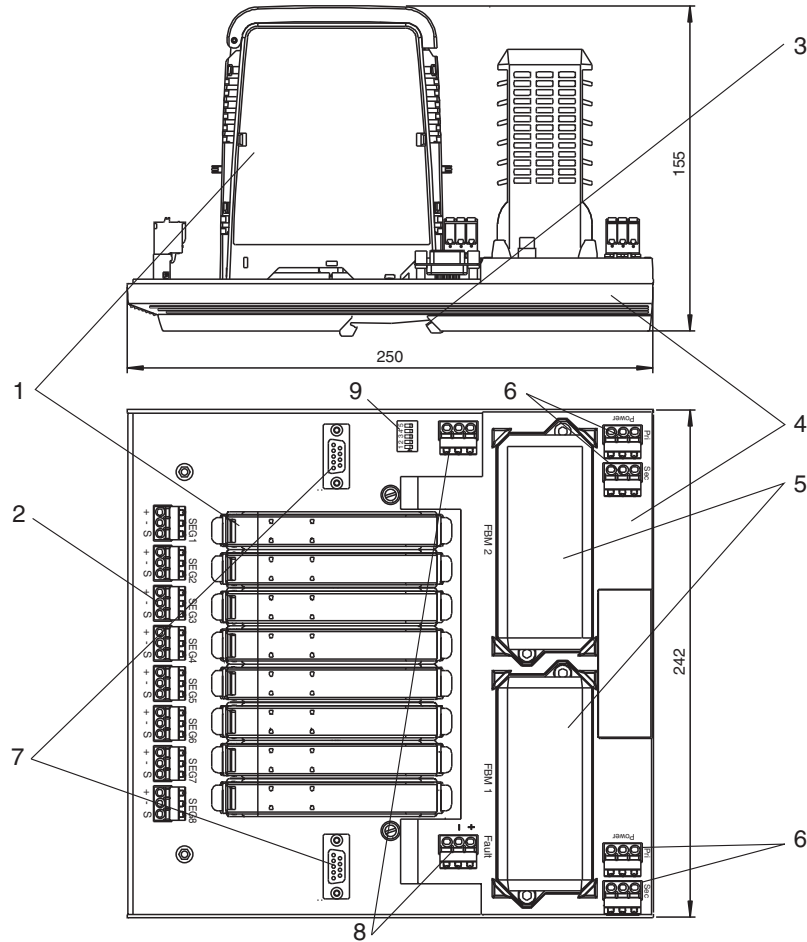


## Matching System Components

	<b>HD2-FBPS-1.17.500</b>	Fieldbus Power Hub, Power Supply Module
	<b>HD2-FBPS-1.23.500</b>	Fieldbus Power Hub, Power Supply Module
	<b>HD2-FBPS-1.500</b>	Fieldbus Power Hub, Power Supply Module

**Additional Information**

**Dimensions and Assembly**



**Description:**

- 1 Power Supply Modules, see separate data sheets
- 2 Fieldbus trunk connections
- 3 DIN rail slot
- 4 Motherboard
- 5 INVENSYS FBM 228 FOUNDATION Fieldbus modules
- 6 Connections for bulk power supply
- 7 Ethernet trunk Fieldbus connection
- 8 Fault output
- 9 ID DIP switch array

**Components**

**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>

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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
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

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