

Features

- Basic monitoring for power supply output and health
- Plug-in Module for the FieldConnex Power Hub
- Plug and play - no engineering required
- For online monitoring
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Installation in Zone 2/Class I, Div. 2
- System state and fault indication via LEDs

Function

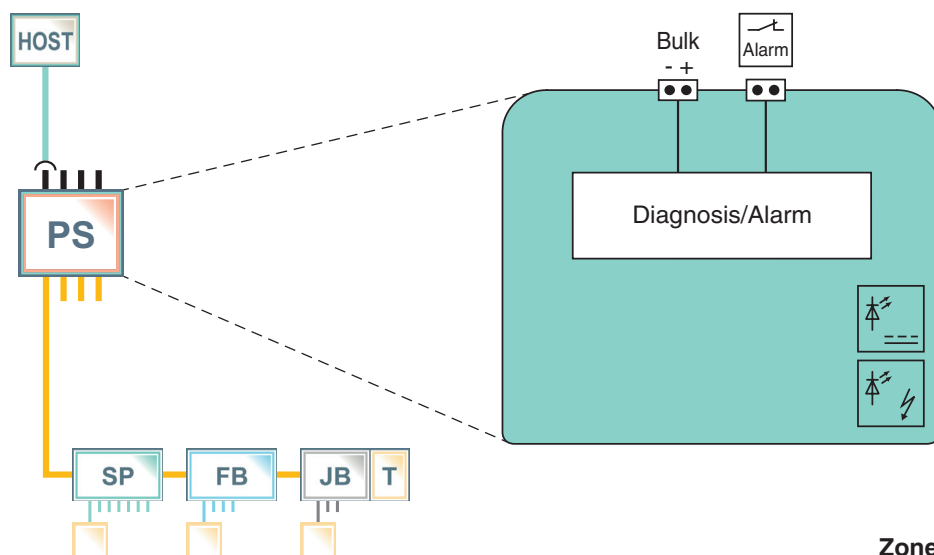
Designed as a plug-in module for the FieldConnex® Power Hub, the Basic Diagnostic Module HD2-DM-B provides basic system diagnostics. It checks for proper operation of bulk power supplies and monitors the connected trunks for overload or short-circuit conditions. All Power Hub modules are checked for proper function. On redundant power modules it indicates mismatching pairs.

The module indicates a fault condition via voltage-free contact. It provides monitoring "plug-and-play" without additional engineering. LED signals indicate a fault for easy detection.

Assembly



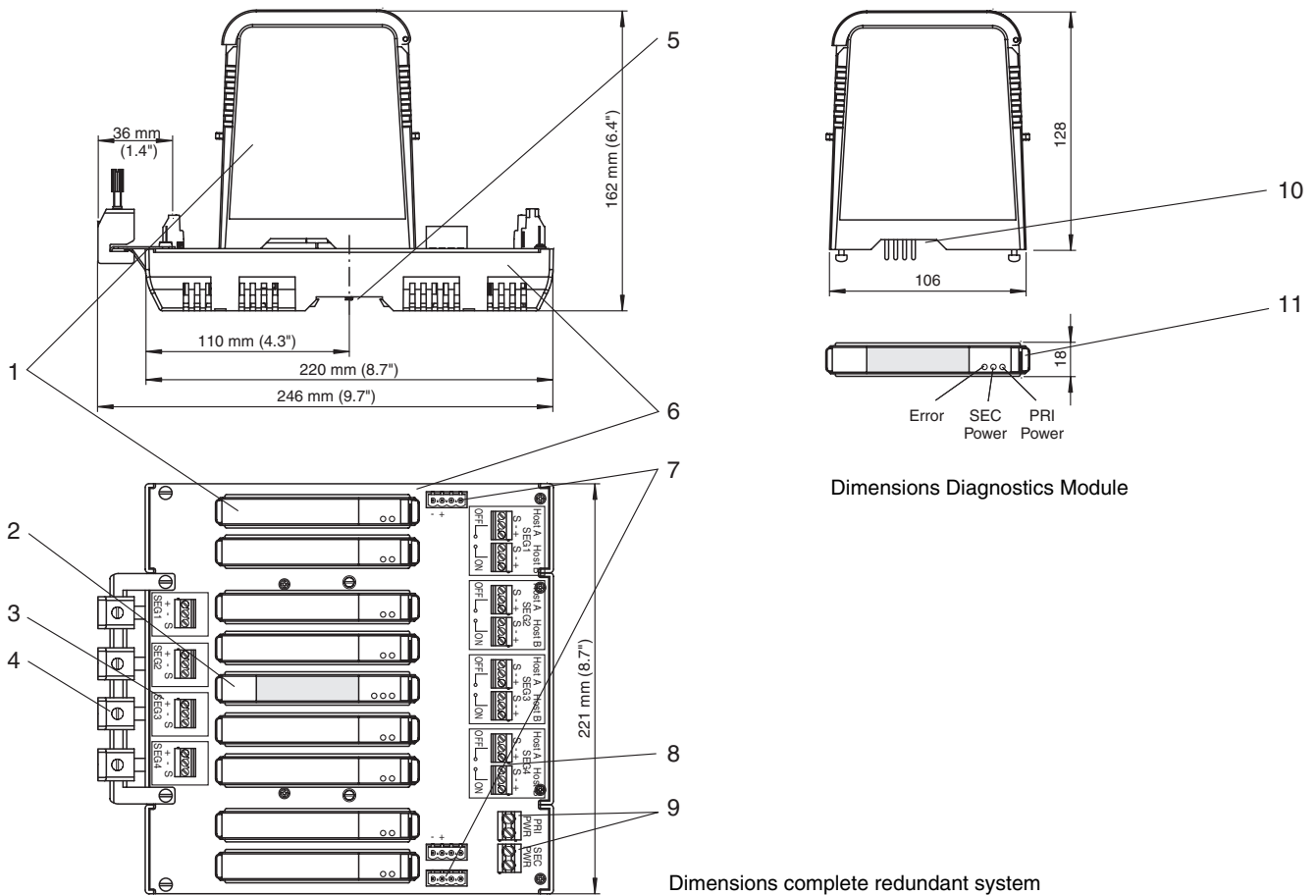
Connection



Zone 2/Div. 2

General specifications		
Design / Mounting		Motherboard based
Supply		
Rated voltage	U _r	19.2 ... 35 V
Rated current	I _r	20 mA
Power dissipation		max. 0.5 W
Indicators/operating means		
LED PRI PWR		green: on, primary bulk power supply connected
LED SEC PWR		green: on, secondary bulk power supply connected
LED ERR		red: 2 Hz flashing, power supply fault (short-circuit, undervoltage), redundancy fault
Fault signal		VFC alarm 1 A, 50 V DC, normally closed
Galvanic isolation		
Fieldbus segment/Fieldbus segment		functional insulation acc. to IEC 62103, rated insulation voltage 50 V _{eff}
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 61326-1:2013
Standard conformity		
Electromagnetic compatibility		NE 21:2011
Degree of protection		IEC 60529
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		18 mm
Housing height		106 mm
Housing depth		128 mm
Degree of protection		IP20
Mass		approx. 70 g
Mounting		motherboard mounting
Data for application in connection with hazardous areas		
Certificate		TÜV 04 ATEX 2500 X
Marking		Ⓔ II 3 G Ex nA nC 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 nA nC IIC T4
IECEX approval		
IECEX certificate		IECEX TUN 13.0038X
IECEX marking		Ex nA 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 .

Dimensions



Dimensions Diagnostics Module

Dimensions complete redundant system

Description:

- 1 Power Supply Modules, see separate data sheets
- 2 Diagnostics Module
- 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, see separate data sheets
- 7 Connections for alarm, voltage free contact and diagnostics bus
- 8 Connections for redundant host
- 9 Connections for redundant bulk power supply
- 10 Plug connections to Motherboard
- 11 State and fault indication LEDs

Installation note

see manual

Accessories

see system data sheet