

Advanced Diagnostic Kit FieldConnex® Fieldbus KT-MB-DMA

- Comprehensive diagnostics for the fieldbus physical layer
- Module and motherboard for retrofit of any installation
- Precise measurements through passive circuits
- For commissioning, online monitoring and troubleshooting
- For FOUNDATION Fieldbus H1 and PROFIBUS PA
- Installation in Zone 2/Class I, Div. 2
- System state and fault indication via LEDs
- Display of data in the safety of the control room
- Full software integration into PCS and PAM possible

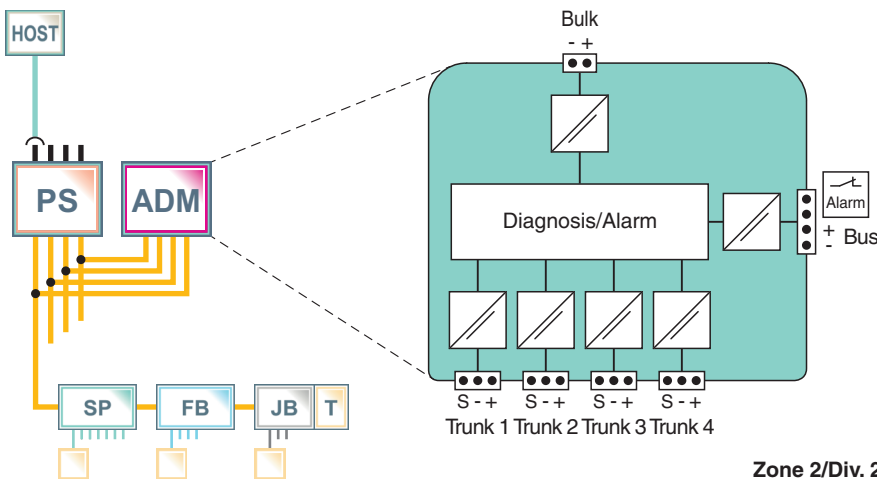
Advanced diagnostic kit for retrofitting advanced diagnostics



Function

The kit of FieldConnex® Advanced Diagnostic Module (ADM) and motherboard is a comprehensive measurement tool for the physical layer for retrofitting of up to four fieldbus segments. Its passive input circuits leave the physical layer untouched for exact data. The ADM detects gradual or sudden changes and helps trace even intermittent malfunctions. The ADM supports commissioning, online monitoring and troubleshooting. It can be integrated tightly into the DCS and PAM via a separate diagnostic bus, making the fieldbus physical layer itself a manageable asset. Configuration tools automate setup of the ADM and of selected DCS. The Diagnostic Manager is the software for display and operation from the safety of the control room. The Professional Edition provides powerful functions and wizards simplifying and automating work procedures: an embedded expert system, a data historian, and a built-in oscilloscope (see datasheet DTM-FC.AD*).

Connection



Technical Data

General specifications

Design / Mounting	Motherboard based
Installation in hazardous area	Zone 2 / Div. 2

Supply

Rated voltage	U_r	19.2 ... 35 V
Rated current	I_r	110 ... 30 mA
Power dissipation		max. 2 W

Fieldbus connection

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Technical Data

Number of segments	4
Fieldbus type	FOUNDATION Fieldbus/PROFIBUS PA
Indicators/operating means	
LED PRI PWR	green: on, primary bulk power supply connected
LED SEC PWR	green: on, secondary bulk power supply connected
LED Seg 1...4	yellow: bus activity; red 2 Hz flashing: alarm; red: hardware error
Fault signal	VFC alarm 1 A, 50 V DC, normally closed
DIP switch	diagnostic address 1...247, binary coded
Interface	
Interface type	diagnostic bus: RS 485
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	EN 61326-1:2006
Standard conformity	
Electromagnetic compatibility	NE 21
Degree of protection	IEC 60529
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	screw terminal , pluggable
Core cross section	2.5 mm ²
Housing material	Polycarbonate
Degree of protection	IP20
Mass	approx. 290 g
Dimensions	
Height	220 mm
Width	50 mm
Depth	162 mm
Mounting	DIN rail mounting
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 .

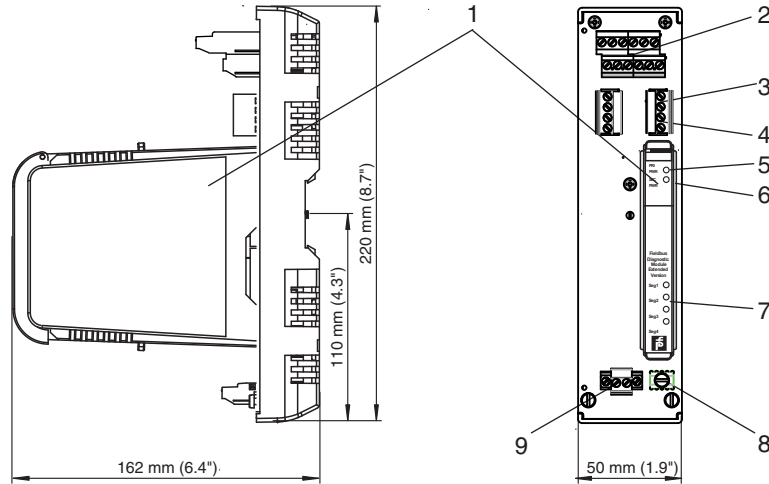
Product Photo



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Additional Information

Dimensions and Assembly



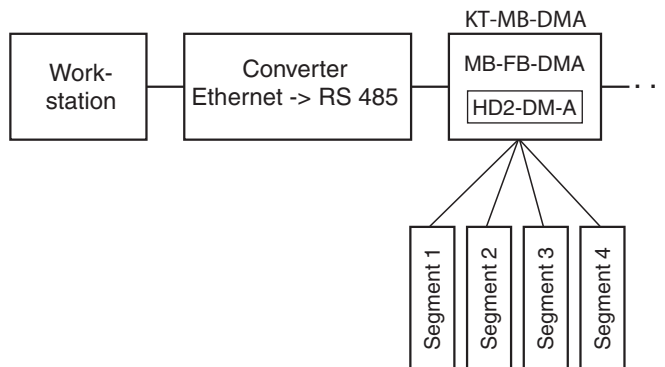
*all dimensions without tolerance indication

Description:

- 1 Advanced Diagnostic Module
- 2 Connections for fieldbus segments
- 3 Connection voltage free contact
- 4 Diagnostic bus

- 5 LED green PRI Power
- 6 LED green SEC Power
- 7 LEDs Seg 1 ... Seg 4
- 8 Screen/ground connection clamp
- 9 Connections for bulk power supply

System Topology



Installation notes see manual.

Accessories

- Software User Interface for monitoring up to or including 100 fieldbus segments: Diagnostic Manager, Professional Edition DTM-FC.AD
- Software User Interface for monitoring more than 100 fieldbus segments: Diagnostic Manager, Professional Edition DTM-FC.AD.1
- KT-MB-GT2AD Diagnostic Gateway
- T-Connector, Part. No.: 208182 (packaging unit = 4 pieces), to loop-in the diagnostic module at the segment outputs of the common Fieldbus Power Supplies on the market.

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