

Advanced Diagnostic Module, Kit for Stand-Alone Operation

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

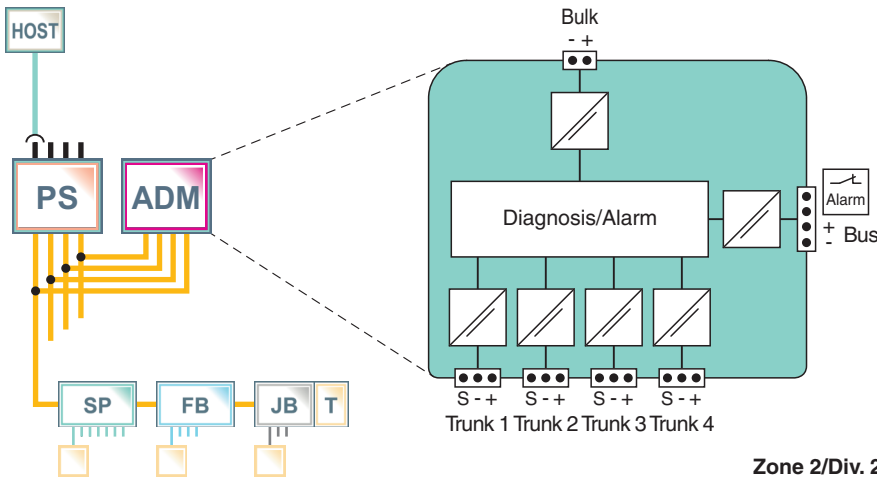


Function

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



Zone 2/Div. 2

Technical Data

| General specifications | |
|------------------------|---------------------------------|
| Design / Mounting | Motherboard based |
| Supply | |
| Rated voltage | U_r 19.2 ... 35 V |
| Rated current | I_r 110 ... 30 mA |
| Power dissipation | max. 2 W |
| Fieldbus connection | |
| Number of segments | 4 |
| Fieldbus type | FOUNDATION Fieldbus/PROFIBUS PA |

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

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Technical Data

| 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 terminals |
| Core cross section | | 2.5 mm ² |
| Housing material | | Polycarbonate |
| Housing width | | 50 mm |
| Housing height | | 220 mm |
| Housing depth | | 162 mm |
| Degree of protection | | IP20 |
| Mass | | approx. 290 g |
| Mounting | | DIN mounting rail |
| 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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Product Photo



Accessories

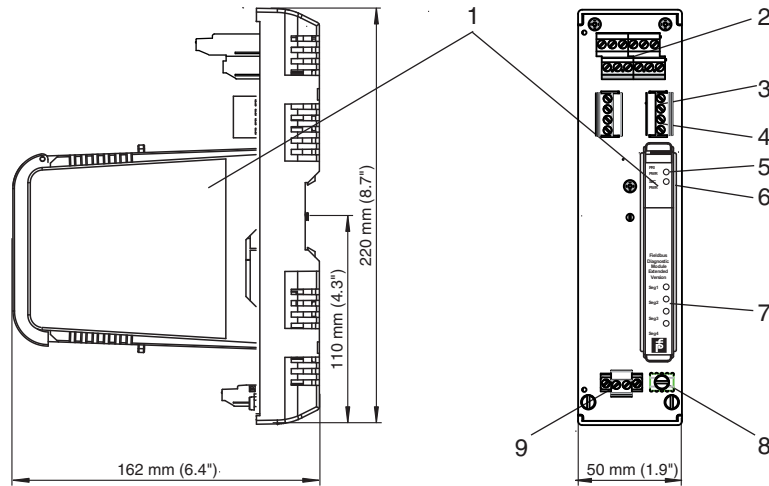
| | | |
|--|------------------------|--|
| | DTM-FC.AD* | User-Interface for Advanced Diagnostics, Professional Edition |
| | DTM-FC.AD | Software user interface for advanced diagnostic modules; license for up to a maximum of 100 segments |
| | DTM-FC.AD.1 | Software user interface for advanced diagnostic modules; license for 100 segments or more |
| | DTM-FC.AD.UPG | Advanced diagnostics upgrade license from V1.x to V2.x for plants with up to 100 segments |
| | DTM-FC.AD.1.UPG | Advanced diagnostics upgrade license from V1.x to V2.x for plants with 100 or more segments |
| | T-CON.3 | T-Connector as Accessory, 3 pcs. |
| | PACTware 5.0 | FDT Framework |
| | PACTware 4.1 | FDT Framework |

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Additional Information

Dimensions and Assembly



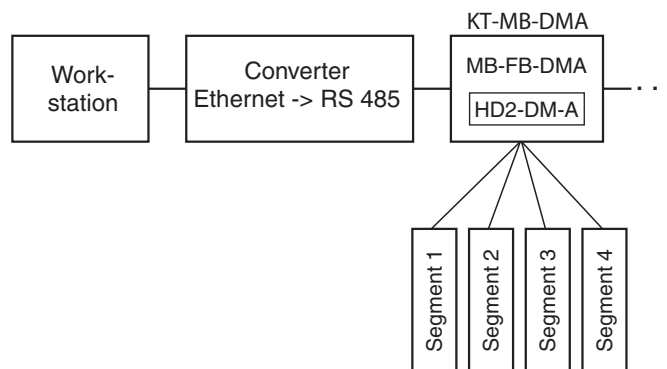
*all dimensions without tolerance indication

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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