

# TBE-D5008-GMI-001

# 8-pos Term. Board for D5000/D6000 Series

This Termination Board with Enclosure (TBE) provides direct connection between the I/O Card of the system and D5000 / D6000 Series modules. The Intrinsically Safe protection and signal isolation between Safe and Hazardous Area, is provided by D5000 Series Associated Apparatus. The 24 Vdc Power Supply of the TBE is connected to two plug-in terminal blocks, for a redundant power supply.

# **FEATURES**

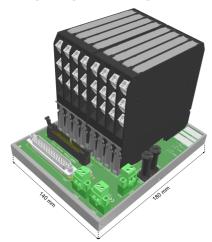
- Universal board interfaces
- Connection to external GMI HART Mux 5700
- 8 positions Termination Board for up to 16 channels
- Lower cables installation and maintenance costs
- · Power supplies fault monitoring
- Mounting hardware provided for single DIN Rail mounting kit

# **SUPPORTED CARDS & MODULES**

SYSTEM	I/O CARD	CARDS / BOARDS	MODULES
Any	Al 8 ch	1	D5011S, D5014S, D5015S*, D5016S*, D5072S, D6001S, D6011S, D6014S, D6015S*, D6016S*, D6017S*, D6072S
Any	Al 8 ch	2	D5011D, D5014D, D5016D*, D5072D, D6001D, D6011D, D6014D, D6016D*, D6072D
Any	AO 8 ch	1	D5020S, D6001S, D6020S
Any	AO 8 ch	2	D5020D, D6001D, D6020D
Any	DI 8 ch	1	D5031S, D5032S, D5034S, D5037S, D5038S*, D5039S*, D5093S, D6001S, D6031S, D6032S, D6034S, D6037S, D6038S*, D6039S*
Any	DI 8 ch	2	D5031D, D5032D, D5034D, D5037D, D5038D*, D5038X*, D5039D*, D5039X*, D5093D, D6001D, D6031D, D6032D, D6034D, D6037D, D6038D*, D6038X*, D6039D*, D6039X*
Any	DO 8 ch	1	D5040S, D5048S, D5049S, D5090S, D5091S, D5094S, D5094S, D5096S, D5097S, D5098S, D5099S, D6001S
Any	DO 8 ch	2	D5040D, D5098D, D5099D, D6001D

For more detailed information, refer to Instruction Manual.

### **TERMINATION BOARD IMAGE**



# **TECHNICAL DATA**

### General

Number of positions: 8

Maximum number of channels: 16

24 Vdc nom (20 to 30 Vdc), reverse polarity protected, double terminal blocks for redundant power supply, with OR diodes to mix supply

Max allowed current consumption: 1 (as total supply).

Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm<sup>2</sup>.

Protection fuse: 2 A time lag.

# Fault detection

The on-board diagnostic monitors both power supplies integrity and the module cumulative fault. Any malfunction is reported by deactivating a solid-state relay and activating the corresponding LEDs.

Alarm is issued if:

- 1) Power supply 1 or 2 < 17 Vdc or 2) Power supply 1 or 2 > 33 Vdc or
- 3) Module cumulative fault ON.

Alarm is removed if:

- 1) 20 Vdc < Power supply 1 and 2 < 30 Vdc and
- 2) No module cumulative fault.

Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm<sup>2</sup>.

Ouptut rating: 100 mA 35 V (≤ 1 V voltage drop).

Connection: 1 x SUB-D 37 poles male connector (requiring female mating connector).

Cable: CABF034/xx, where "xx" indicates the length expressed in meters (5, 10, 20, 30 available).

# **HART Mux Interface**

Connection: 1 x 34-poles receptacle connector (require female mating

Cable: flat cable CABF032. **Environmental conditions** 

Operating temperature: temperature limits -40 to +70 °C.

Max altitude: 2000 m a.s.l.

Storage temperature: temperature limits -45 to +80 °C.

Hardware included for mounting on single DIN-rail 35 mm.

Weight: about 450 g, excluding modules (+ 50 g plastic clips or 380 g

Location: installation in Safe Area.

Dimensions: Width 140 mm, Depth 180 mm, Height 154 mm.

# ORDERING INFORMATION

# **Ordering codes**

TBE-D5008-GMI-001

# Accessories

The Termination Board is already provided with plastic DIN-rail clips. Metal clips, replacement plastic clips as well as conformal coating must be ordered as a separate accessory according to the following items.

TBE-FIX-PL-001 Plastic DIN-rail clips Metal DIN-rail clips TBE-FIX-MT-001

TBE-MNT-001 Factory assembly of TBE-FIX-MT-001

TBE-CTG-001 Conformal coating

Functional Safety Management Certification:

GM International is certified to conform to IEC61508:2010 part 1 clauses 5-6 for safety related systems up to and included SIL3. In addition, GM International products have been granted I.S. certificates from the most credited Notified Bodies in the world.

Data specified in this document are merely descriptive of the products and should be integrated with relevant technical specifications. Our products are in constant development and the information presented herein refers to the time of document issue. No statements concerning a certain condition or suitability for a certain application can be derived from our information. The information given does not release the user from the obligation of own judgment and verification. Terms & Conditions can be found at our website. For more information refer to istruction manual.

# **FUNCTION DIAGRAM**

Additional installation diagrams may be found in Instruction Manual.

Field Safe Area Power supply 2 LEDs Power supply 2 fuse Power supply 1 LEDs Power supply 1 fuse Modules fault Module or power supply fault 1st Module channels Power 2nd Module channels supply 1 Power 2 supply 2 Connection shield 6 5 8 7 System I/O Card Field devices 10 9 HART Mux 5700 + TB(E)-D5001-HRT-003 () I 12 11 14 13 16 15

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English

Functional Safety Management Certification:

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