gmi
technology for safety

TB-D5001 HRT-002

HART Multiplexer Termination Board
1 position for up to 32 channels

Characteristics:

General description:
The Hart Termination Board model TB-D5001-HRT-002 allows the remote monitoring of any HART-compatible 4/20 mA field loop.
This is obtained by one locally mounted HART multiplexer module (MUX2700) and by terminal block interface connectors to access the relevant loops. The board is installed in series to the loop and is totally transparent to both transmitter and receiver.
The Multiplexer plug-in module can manage up to 32 HART channels, with optional Hart multi-drop capability. Hot plug-in is fully supported: insertion and removal of a MUX unit can be done without switching off the power supply. The same is true as for the terminal blocks used to access the relevant Hart loops.
The MUX unit connects, via the RS-485 interface, to an external PC running a suitable maintenance SW package. Each PC can communicate with multiple MUX units, located on different boards, in a multi-drop RS-485 mode.

Technical Data:

Supply:
24 Vdc nom (20 to 30 Vdc) reverse polarity protected, redundant terminal blocks, OR diodes to select higher supply source.
Connection: by polarized plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5 mm^2.
2 LEDs indication: green.
Protection fuse: 2 A time lag (spare fuse provided on Termination Board).
HART interface:
Connection: 32+32 screw terminal blocks to accommodate terminations up to 2.5 mm^2.
Environmental conditions:
Operating: temperature limits 0 to + 55 °C,
relative humidity max 90 % non condensing, up to 35 °C.
Storage: temperature limits – 45 to + 80 °C.
Mounting:
Surface (Wall) or DIN Rail mounting: TB-OPT-001 is a Kit including hardware for mounting on wall and DIN rail.
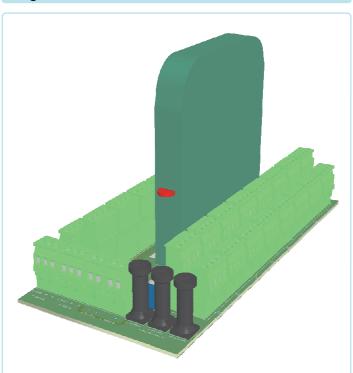*Weight:* about 250 g (excluding module and mounting options).
Location: Safe Area / Ordinary locations.
Dimensions: Width 300 mm, Depth 165 mm, Height 135 mm.

Features:

- Transparent board for HART Multiplexing of up to 32 analog signals.
- Redundant Power Supply connection by screw terminals.
- Supply is fuse protected and with LED indication.
- Dedicated terminal to connect RS-485 communication cable shield.
- RS-485 interface terminals to communicate with the HART MUX unit.
- Hart loop interface terminal block connectors.
- Spare fuse provided.
- Includes hardware for Easy installation in three modes:
  Wall mounting, M4 Threads,
  Wall mounting, Self Threading,
  Din Rail mounting.

Image:

Ordering Information:

Model: TB-D5001-HRT-002

Included:
TB-OPT-001 Universal Board mounting kit

Termination Board Connection Diagrams:

Termination block
connectors from 1 to 32
for up to 32 analog signals

Termination block
connectors from 1 to 32
for up to 32 analog signals

Power
Supply 1

Power
Supply 2

First
RS-485

Second
RS-485

+ − + − B A GND B A GND

2A Time Lag Fuses

Spare Fuse   Fuse Ch. 1   Fuse Ch. 2

Supply 1   Supply 2   RS485-1   RS485-2

+ −   + −   A B GND 1   A B GND 2

Pwr. On Ch. 1   Pwr. On Ch. 2

ø M4   ø M4

J1

Board Tag

Serial Number

TB-D5001-HRT-902
Termination Board
1 position HART Multiplexer

Pos.   700

ø M4   ø M4

32−
32+

32+
32−

input signals

output signals

1−
1+

1−
1+