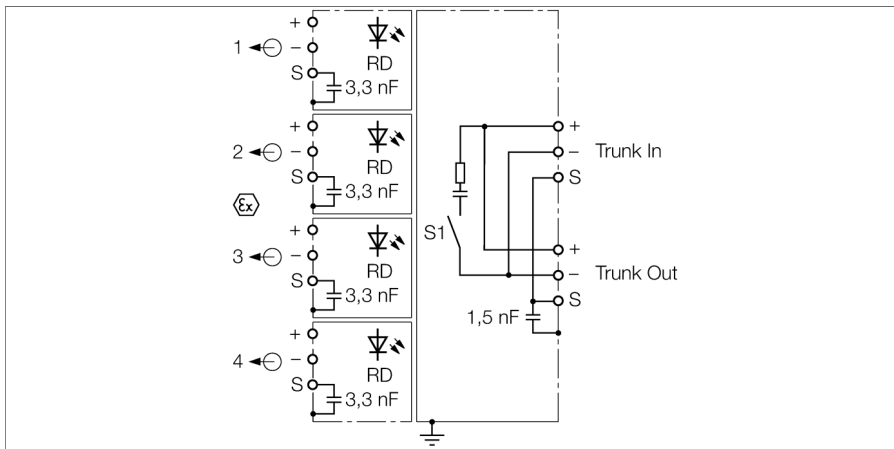


# PROFIBUS-PA multibarrier, 4 channel MBD48-T415/EX

**TURCK**

Industrial  
Automation



The 4-channel multibarrier MBD48-T415/EX enables the connection of a large number of field devices to one fieldbus in the Ex-area, according to IEC 61158-2.

Each multibarrier can take 4 Ex i field devices. Up to 12 Ex i field devices can be connected to the bus. Ex e fieldbus supply (High Power Trunk Concept) which is looped through from multibarrier to multibarrier allows to augment the number of subscribers.

Inputs and outputs of the trunk line feature enhanced safety protection (Ex e) and the outputs to the field devices are intrinsically safe (Ex i).

The multibarrier is equipped with an activatable terminating resistor for the bus. The switch is integrated in the housing on the board.

The multibarrier has four LEDs indicating short-circuit for each channel separately. They are located on the board, inside the device.

All-round galvanic isolation

- Trunk line and Ex i outputs as well as
- Between the Ex i outputs,

guarantees safe operation.

- Entity and FISCO compliant acc. to EN60079-11
- Galvanic isolation between the Ex i outputs and the Ex e bus line as well as between the Ex i outputs
- Temperature range: -20...+70 °C (-4...+158 °F)
- integrated terminating resistor (switch-in)
- cable shielding: capacitive connection to housing potential
- output data: 10V/40mA (short-circuit proof)
- powder-coated die-cast aluminium housing
- pressure compensation element for protection against condensation water
- connection of the housing potential via an M5 x 1 bolt



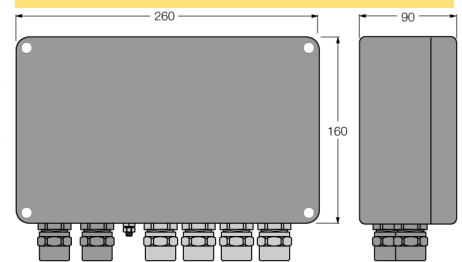
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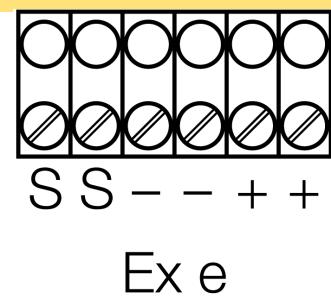
Industrial  
Automation

<b>Type code</b>	MBD48-T415/EX
Ident no.	6611270
<b>Fieldbus standard</b>	IEC 61158-2
<b>Operating voltage range</b>	16...32 VDC
Current self-consumption	≤ 40 mA
Galvanic separation	Input circuit (EEx e) to output circuits (EEx i) 253 V <sub>eff</sub> ; between the output circuits (Ex i) 60 V <sub>eff</sub>
<b>Output circuits</b>	
Output current	≤ 40 mA
Output voltage	≥ 10 VDC
Short-circuit protection	≤ 45 mA
<b>Indication</b>	
Short-circuit message	4 x red
<b>Ex approval acc. to conformity certificate</b>	PTB 04 ATEX 2021
Device designation	Ex II 2(1 G/D)G Ex mb e [ia] IIC T4 FISCO / Entity multibarrier
Max. output voltage U <sub>o</sub>	≤ 14.3 V
Max. output current I <sub>o</sub>	≤ 268 mA
Max. output power P <sub>o</sub>	≤ 958 mW
Internal resistance R <sub>i</sub>	53.3 Ω
Characteristic	linear
Internal inductance/capacitance L/C <sub>i</sub>	negligible
<b>Electrical connection</b>	
Segment IN	cable gland 1 x M20 x 1.5 (Ø 7...13 mm); plastic; black
Segment OUT	1 x M20 x 1.5 (Ø 7...13 mm); plastic; black
Drop line	4 x M20 x 1.5 (Ø 7...13 mm); plastic; blue
Terminal cross-section	2.5 mm <sup>2</sup>
Earthing bolt	M5 x 1
<b>IP Rating</b>	IP66
Ambient temperature	-20...+70 °C
Relative humidity	≤ 95 %, non condensing
Housing material	powder-coated die-cast aluminium
Housing color	black / yellow
Dimensions	260 x 160 x 90 mm
Connection mode	wall mounting

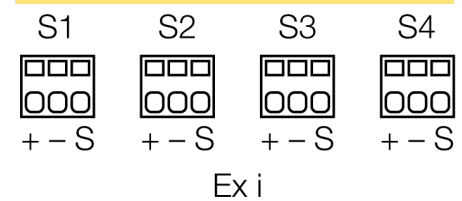
## Dimensions



## Supply trunk (in/out)



## Outputs



## Current consumption

