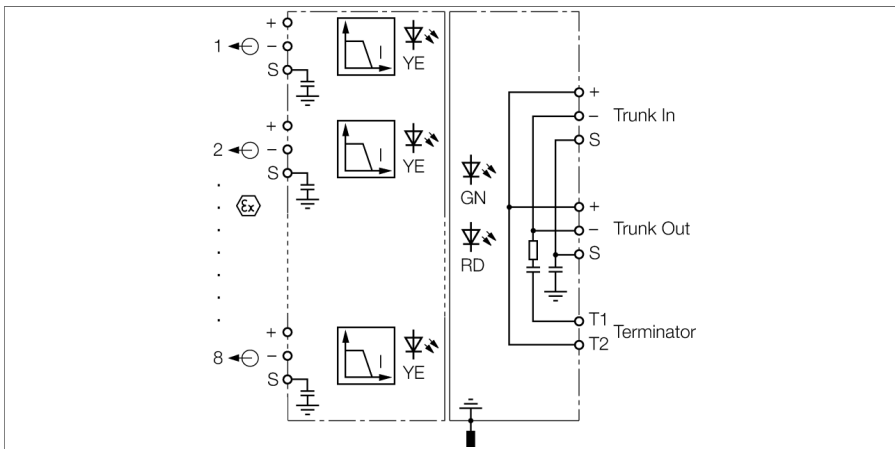


**FOUNDATION fieldbus and PROFIBUS-PA  
Multibarrier, 8-channel  
MBD40-T0815/EX/000**



The eight-channel multibarrier enables the connection of a large number of field devices to one fieldbus, according to IEC 61158-2.

8 Ex i field devices can be connected to each multibarrier. Up to 32 Ex i field devices can be connected to the bus. The number of nodes can be increased thanks to the High Power Trunk Concept, through which Ex e fieldbus power is looped from multibarrier to multibarrier. In order to limit inrush currents at the moment of turn-on, the spurs are switched on one after the other. The field devices can be supplied with a maximum of 40 mA. Each spur is short-circuit protected through 50 mA current limitation. Altogether, a maximum of 160 mA are available for nominal operation. This current can be spread to the connected field devices, for example:

- 8 x 20 mA
- 1 x 40 mA, 7...16 mA
- 1 x 30 mA, 7...18 mA
- 6 x 23 mA
- 5 x 28 mA

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

The multibarrier is equipped with an activatable terminating resistor for the bus. The terminating resistor is switched on/off by means of a jumper.

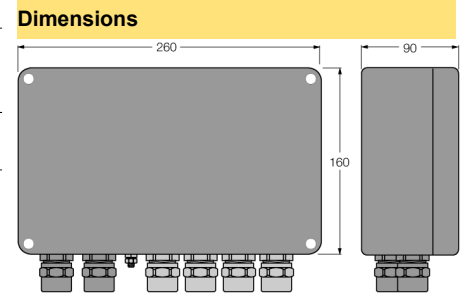
Status and error messages of the single spurs are indicated via LEDs at the front.



- Galvanically separated Ex e bus cables and Ex i outputs
- Temperature range: -20...+70 °C (-4 ... +158 °F)
- Integrated terminating resistor (optional activation)
- output data: 10V/40mA (short-circuit proof)
- Powder-coated die-cast aluminium housing
- Pressure compensation element for protection against condensation
- Connection of the housing potential via M5 x 1 bolt
- FISCO compliant according to IEC 60079-11 and Entity


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<b>Type designation</b>	MBD40-T0815/EX/000
Ident no.	6611786
<b>Fieldbus standard</b>	IEC 61158-2
<b>Operating voltage</b>	16...32 VDC
Power dissipation	≤ 1.8 W
Galvanic isolation	Input circuit (Ex e) to output circuits (Ex i)
Test voltage	1.5 kV AC
<b>Output circuits</b>	
Output current	≤ 40 mA
Output voltage	≥ 10 VDC
Short-circuit protection	≤ 50 mA
<b>Indication</b>	
Operational readiness	1 × green
State/ Fault	1 × red
Short-circuit message	8 × yellow, flashing
<b>Ex approval acc. to conformity certificate</b>	PTB 09 ATEX 1069
Device designation	⊕ II 2(1G/D)G Ex eb ib [ia] mb IIC T4 FISCO Power Supply
Max. output voltage $U_o$	≤ 15.7 V
Max. output current $I_o$	≤ 245 mA
Max. output power $P_o$	≤ 960 mW
Characteristic	linear
Internal inductance/capacitance L/C,	negligible / 1.1 nF
<b>Electrical connection</b>	8 × 3-pin removable terminal blocks, screw connection Cable gland
Segment IN	1 × M20 × 1.5 (Ø 7...13 mm); plastic; black
Segment OUT	1 × M20 × 1.5 (Ø 7...13 mm); plastic; black
Spur line	8 × M20 × 1.5 (Ø 7...13 mm); plastic; blue
Terminal cross-section	0.2...2.5 mm <sup>2</sup> (AWG: 24...14)
Earthing bolt	M5 × 1
<b>Protection class</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 × 160 × 90 mm
Connection mode	Wall mounting



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**Accessories**

Type code	Ident no.		Dimension drawing
VST-BS13	6884032	Closure cap for cable glands, Ø13 mm, PU 10 pcs.	
VSTS24	6900462	Socket spanner for cable glands, SW24	