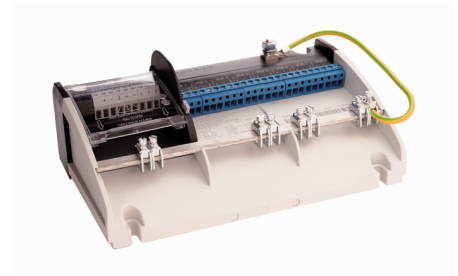
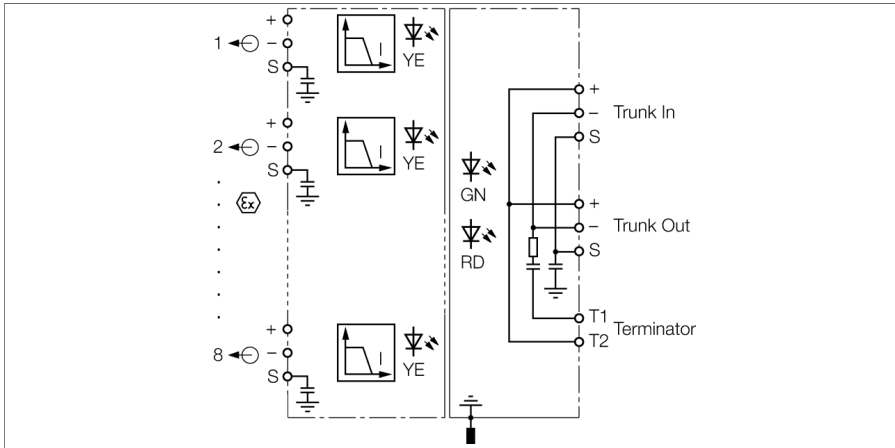


# Multibarrier, 8-Channel FOUNDATION Fieldbus and PROFIBUS-PA MBD40-8R/EX



The eight-channel multibarrier MBD40-8R/Ex enables the connection of a large number of field devices to one fieldbus in the Ex-area, according to IEC 61158-2.

8 Ex i field devices can be connected to each multibarrier and 32 Ex i field devices 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 nodes. In order to limit inrush currents at the moment of turn-on, the drop lines/spurs are switched on one after the other. The field devices can be supplied with maximally 40 mA. Each spur is short circuit protected through 50 mA current limitation. Altogether, 160 mA are maximally available for nominal operation and splittable onto the connected field devices as follows:

- 8 x 20 mA
- 1 x 40 mA, 7 x 16 mA
- 1 x 30 mA, 7 x 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).

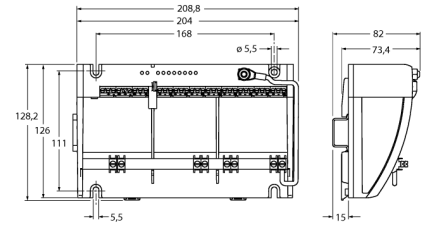
The multibarrier is equipped with an activatable terminating resistor for the bus. The terminating resistor is switched on/off by means of a jumper.

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

The multibarrier can either be mounted on a DIN rail or in a housing.

- Galvanically separated Ex e bus cables and Ex i outputs
- Temperature range: -40...+75 °C (-40...+167 °F)
- Integrated terminating resistor (optional activation)
- output data: 10V/40mA (short-circuit proof)
- Entity and FISCO compliant acc. to 60079-27

## Dimensions



Type	MBD40-8R/EX
ID	6611703
Fieldbus standard	IEC 61158-2
Operating voltage $U_s$	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
Output circuits	
Output current	≤ 40 mA
Output voltage	≥ 10 VDC
Short-circuit protection	≤ 50 mA
Displays/Operating elements	
Operational readiness	1 × green
State/ Fault	1 × red
Short-circuit message	8 x yellow, flashing
Ex approval acc. to conformity certificate	IECEX BVS 11.0045X
Device designation	Ex mb e ib [ia Ga] IIC T4 GB [Ex ia Da] IIIC
Ex approval acc. to conformity certificate	BVS 11 ATEX E 075 X
Device designation	II 2 (1) G Ex mb e ib [ia Ga] IIC T4 GB
Device marking	II (1) D [Ex ia Da] IIIC 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 <sub>i</sub>	negligible / 1.1 nF
Electrical connection	Removable terminal block, reverse polarity protected, screw connection
Terminal cross-section	0.2...2.5 mm <sup>2</sup> (AWG: 24...14)
Earthing bolt	M6
Protection class	IP20
Ambient temperature	-40...+75 °C
Relative humidity	≤ 95 %, non-condensing
Housing material	Plastic, White/black
Dimensions	208.8 x 128.2 x 84 mm
Connection mode	snap-fit on DIN rail (DIN 60715) or mounting panel