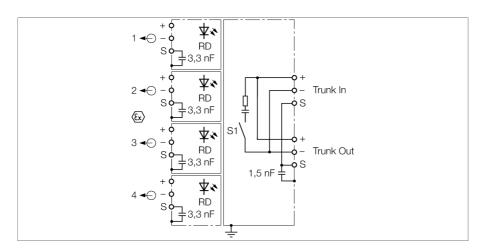
FOUNDATION™ fieldbus multibarrier, 4 channel MBD49-T415/EX







The 4-channel multibarrier MBD49-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 separation between Ex e bus cable and Ex i outputs as well as between the Ex i outputs.
- Temperature range: -20...+70 °C (-4...+158 °F)
- integrated terminating resistor (switchin)
- 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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S4

26 28 30 32 V

		Dimensions
Type designation	MBD49-T415/EX	260
Ident-No.	6611247	
Ident-No (TUSA)	M6611247	
Fieldbus standard	IEC 61158-2	160
Operating voltage range	1632 VDC	
Current self-consumption	≤ 40 mA	
Galvanic isolation	Input circuit (EEx e) to output circuits (EEx i) 253 $V_{\mbox{\tiny eff}},$ between the output circuits (Ex i) 60 $V_{\mbox{\tiny eff}}$	
Output circuits		
Output current	≤ 40 mA	Trunk line
Output voltage	≥ 10 VDC	
Short-circuit protection	≤ 45 mA	
Indication		
Short-circuit message	4 x red	
Ex approval acc. to conformity certificate	PTB 04 ATEX 2021	SS +
Device designation	(x) II 2(1 G/D)G Ex mb e [ia] IIC T4	
	FISCO / Entity multibarrier	_
Max. output voltage U _o	≤ 14.3 V	Ex e
Max. output current I₀	≤ 268 mA	
Max. output power P _o	≤ 958 mW	Outputs
Internal resistance R _i	53.3 Ω	
Characteristic	linear	S1 S2 S3
Internal inductance/capacitance L/C	negligible	
Electrical connection	Cable gland	
Segment IN	1 x M20 x 1.5 (Ø 713 mm); plastic; black	+-S +-S +-S
Segment OUT	1 x M20 x 1.5 (Ø 713 mm); plastic; black	
Spur line	4 x M20 x 1.5 (Ø 713 mm); plastic; blue	Ex i
Terminal cross-section	2.5 mm ²	
Earthing bolt	M5 x 1	
Protection class	IP66	
Ambient temperature	-20+70 °C	Current consumption
Relative humidity	≤ 95 %, non condensing	mA
Housing material	Powder-coated die-cast aluminium	
Housing color	Black/Yellow	300
Dimensions	260 x 160 x 90 mm	250
Connection mode	wall mounting	200 max
		150

100 50

l_{min}

16 18 20 22 24