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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		Dimensions
Type designation	MBD49-T415/EX	
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 $V_{\rm eff}$ between the output circuits (Ex i) 60 $V_{\rm eff}$	
Output circuits		-
Output current	≤ 40 mA	Trunk line
Output voltage	\geq 10 VDC	
Short-circuit protection	≤ 45 mA	ρορορ
Indication		
Short-circuit message	4 x red	<u>NANNAN</u>
Ex approval acc. to conformity certificate	PTB 04 ATEX 2021	SS + +
Device designation	II 2(1 G/D)G Ex mb e [ia] IIC T4 FISCO / Entity multibarrier	00 11
Max. output voltage U	≤ 14.3 V	Ex e
Max. output current I	≤ 268 mA	
Max. output power P.	≤ 958 mW	Outputs
Internal resistance R	53.3 Ω	Outputs
Characteristic	linear	S1 S2 S3 S4
Internal inductance/capacitance L/C	negligible	000 000 000 000
Electrical connection	Cable gland	
Segment IN	1 x M20 x 1.5 (Ø 7…13 mm); plastic; black	+-S $+-S$ $+-S$ $+-S$
Segment OUT	1 x M20 x 1.5 (Ø 7…13 mm); plastic; black	– 1
Spur line	4 x M20 x 1.5 (Ø 713 mm); plastic; blue	Exi
Terminal cross-section	2.5 mm ²	
Earthing bolt	M5 x 1	
Protection class	IP66	-
Ambient temperature	-20+70 °C	Current consumption
Relative humidity	\leq 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

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Imin

16 18 20 22 24 26 28 30 32 V