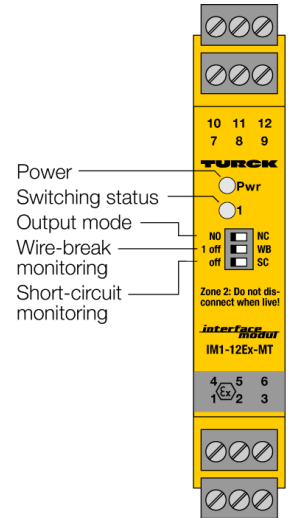
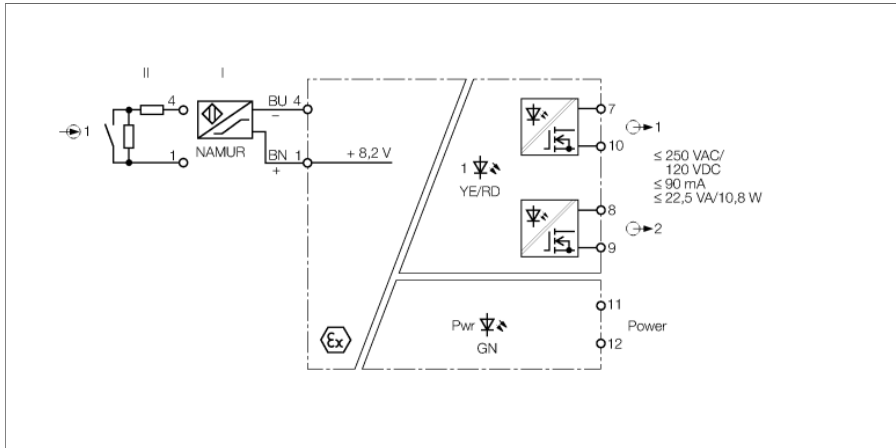


Isolating switching amplifier

1-channel

IM1-12EX-MT



The 1-channel IM1-12EX-MT isolating switching amplifier is equipped with an intrinsically safe input circuit.

Sensors according to EN 60947-5-6 (NAMUR) or potential-free contact transmitters can be connected to the device.

The output circuits feature 2 potential-free MOSFET transistors controlled in parallel for switching voltages of up to 250 VAC at a maximum frequency of 1 kHz.

You can toggle between working or closed current, resp. NO or NC mode via three switches at the front. The switching state of channel 1 is thereby transmitted to the outputs 1 and 2.

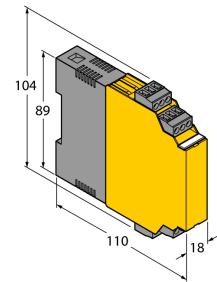
When using mechanical contacts, wire-break and short-circuit monitoring must be switched off or the contacts must be wired to resistors (II) (see circuit diagram).

The Pwr LED lights green to indicate operational readiness. The 2-color LED 1 lights yellow to indicate the switching status of the output. In the event of an input circuit error, the 2-color LED turns red, with the input circuit monitoring switched on. Thereupon the MOSFET outputs are blocked.

- 2 transistor outputs (MOSFET)
- Output mode adjustable (NO/NC mode)
- Input circuits monitored for wire-break and short-circuit
- Complete galvanic isolation
- Input reverse-polarity protected
- ATEX, IECEx, cUL, cFM, CSA, TR CU, NEPSI, KOSHA, CCOE, INMETRO
- Installation in zone 2

Dimensions

Type	IM1-12EX-MT
ID	7541228
Nominal voltage	
Nominal voltage	Universal voltage supply unit
Operating voltage	20...250 VAC
Frequency	40...70 Hz
Operating voltage	20...125 VDC
Power consumption	≤ 3 W
NAMUR input	
NAMUR	EN 60947-5-6
Input circuit monitoring	on/off switchable
No-load voltage	8.2 VDC
Short-circuit current	8.2 mA
Input resistance	1 kΩ
Cable resistance	≤ 50 Ω
Switch-on threshold	1.75 mA
Switch-off threshold	1.55 mA
Wire breakage threshold	≤ 0.06 mA
Short-circuit threshold	≥ 6.4 mA
Output circuits	
Semiconductor output circuits	
Output circuits (digital)	2 x MOSFET (potential-free, short-circuit proof)
Switching voltage	≤ 250 VAC
Switching voltage	≤ 120 VDC
Switching current per output	≤ 0.09 A
Switching frequency	≤ 1000 Hz
Galvanic isolation	
Test voltage	2.5 kV RMS
Important note	
	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	TÜV 04 ATEX 2553
Application area	II (1) G, II (1) D
Ignition protection category	[Ex ia Ga] IIC; [Ex ia Da] IIIC
Ex approval acc. to conformity certificate	TÜV 06 ATEX 552968 X
Application area	II 3 G
Ignition protection type	Ex nA [ic Gc] IIC/IIB T4 Gc
Characteristic	linear
Displays/Operating elements	
Operational readiness	Green
Switching state	Yellow
Error indication	red



Mechanical data	
Protection class	IP20
Flammability class acc. to UL 94	V-0
Ambient temperature	-25...+70 °C
	-25 ... +60 °C für UL, FM, TIIIS
Storage temperature	-40...+80 °C
Dimensions	104 x 18 x 110 mm
Weight	131 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Polycarbonate/ABS
Electrical connection	4 × 3-pin removable terminal blocks, reverse polarity protected, screw terminal
Terminal cross-section	1 × 2.5 mm ² /2 × 1.5 mm ²
Tightening torque	0.5 Nm

Accessories

Type code	Ident no.		Dimension drawing
WM1 WIDER-STANDSMODUL	0912101	The resistor module WM1 meets the requirements for line monitoring between a mechanical contact and a TURCK signal processor. The input circuit of the signal processor is designed for sensors acc. to EN60947-5-6 (NAMUR) and equipped with a wire-break and short-circuit monitoring function.	
IM-CC-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex-devices with 18 mm overall width); includes: 2 pcs. 3-pin blue terminals and 2 pcs. 3-pin black terminals.	