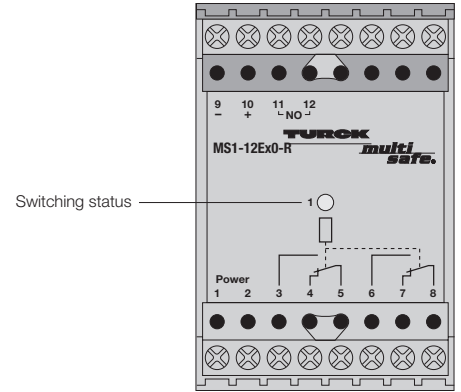
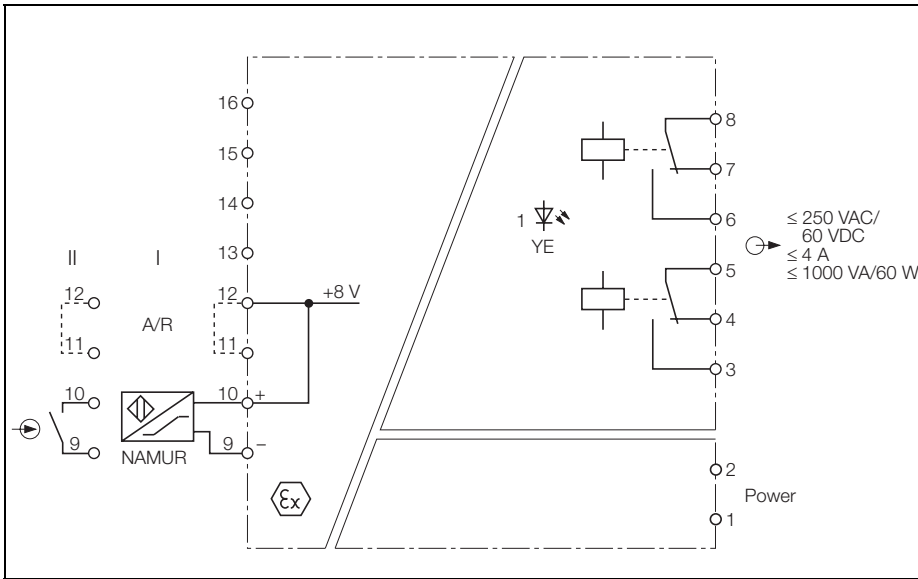


**Isolating switching amplifier**  
**1-channel**  
**MS1-12EX0-R**



The 1-channel isolating switching amplifier MS1-12EX0-R is equipped with an intrinsically safe input circuit.

Sensors according to EN 60947-5-6 (NAMUR) (I) or mechanical contacts (II +III) may be connected.

The output circuit features two parallelly controlled relays, each with one changeover contact.

The output can be changed from NC (without bridge) to NO (with bridge) via the terminals 11/12.

These types of isolating switching amplifiers do not have input circuit monitoring and are thus an economic alternative for the control of NAMUR sensors (I) or contacts (II).

A yellow LED indicates the switching status of the output.

- **Intrinsically safe input circuits EEx ia**
- **Application area according to ATEX : II (1) GD and I (M1)**
- **removable terminal blocks**
- **two relay outputs with one changeover contact each**
- **Universal operating voltage (20...250VAC/ 20...125VDC)**
- **Galvanic isolation of input circuits to output circuits and supply voltage**

# Isolating switching amplifier

## 1-channel

### MS1-12EX0-R

<b>Type</b>	MS1-12EX0-R
Ident-No.	5311103
<b>Nominal voltage</b>	Universal voltage supply unit
Operational voltage range:	20 ... 250 VAC
Frequency	≥ 40 ... ≤ 70 Hz
Operational voltage range:	20 ... 125 VDC
Power consumption	≤ 3 W
<b>NAMUR</b>	EN-60947-5-6
No-load voltage	8 VDC
Short-circuit current	8 mA
Input resistance	1 kΩ
Output resistance	≤ 50 Ω
Switch-on threshold:	1.55 mA
Switch-off threshold:	1.75 mA
<b>Output circuits (digital)</b>	2 x relay (normally open)
Relay switching voltage	≤ 250 VAC/60VDC
Switching current per output	≤ 4 A
Switching capacity per output	≤ 1000 VA/60 W
Switching frequency	≤ 10 Hz
Contact quality	AgNi, 3μ Au
<b>Test voltage</b>	2.5 kV
Constant voltage supply	250 V

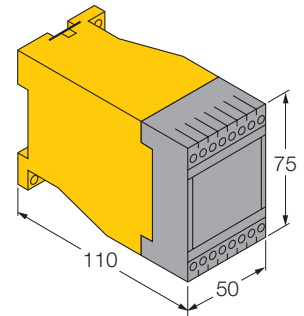
<b>Ex approval acc. to conformity certificate</b>	placeholder
Ex approval acc. to conformity certificate	DMT 01 ATEX E 119
Application area	II (1) GD; I (M1)
Protection type	[EEx ia] IIC
Max. output voltage $U_o$	≤ 11 V
Max. output current $I_o$	≤ 55 mA
Max. output power $P_o$	≤ 150 mW
Characteristic	Linear
External inductance/capacitance $L_o/C_o$	

	EEx ia IIC	EEx ia IIB	EEx ia I
Lo [mH]	1	3	10
Co [μF]	0,5	2,5	10,0

<b>Indication</b>	placeholder
Switching status	yellow

<b>Mechanical Data</b>	
Degree of protection	IP20
Ambient temperature	-25 ... + 60 °C
Housing length	75 mm
Housing width	50 mm
Housing height	110 mm
Weight	262 g
Mounting instruction	Mounting on DIN rail or mounting panel
Housing material	polycarbonate/ABS
Electrical connection	2 x 8-pole removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm <sup>2</sup> / 2 x 1.5 mm <sup>2</sup>

### Dimensions



### output relay: Electrical lifetime

