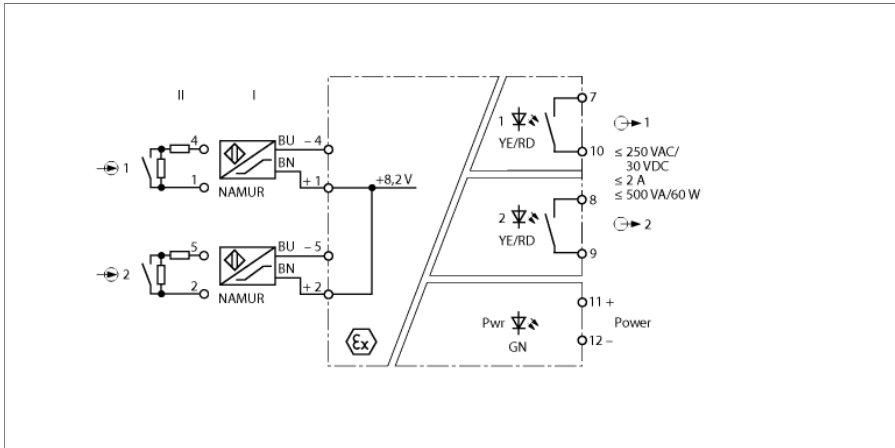


**Isolating switching amplifier
2-channel
IM1-22EX-R/24VDC**



The 2-channel IM1-22EX-R/24VDC isolating switching amplifier is equipped with intrinsically safe input circuits.

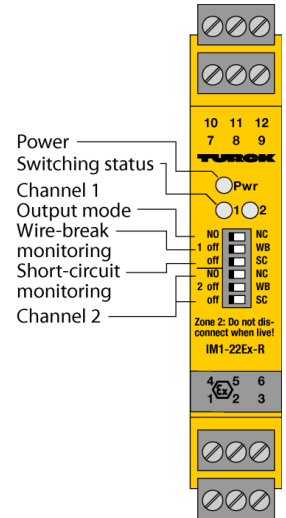
Sensors according to EN 60947-5-6 (NAMUR) or potential-free contact transmitters can be connected to the device.

The output circuits feature 2 relays, each with 1 NO contact.

Via six switches on the front, you can set the operating behaviour for each channel separately (work or quiescent current behavior, i.e. NO/NC) as well as switch wire-break (WB) and short-circuit monitoring (SC) on and off.

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 LEDs 1 and 2 below light yellow to indicate the switching status of the corresponding output. In the event of an input circuit error, the 2-color LED of the assigned faulty input turns red, with the input circuit monitoring being switched on. Thereupon the belonging output relay is de-energized.

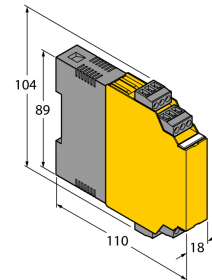


- ATEX, _cFM_{us}, TR CU
- Adjustable output mode (NO/NC)
- Input circuits monitored for wire-break/short-circuit (ON/OFF switchable)
- Complete galvanic isolation

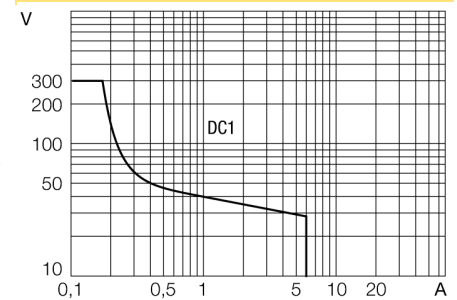
Isolating switching amplifier
2-channel
IM1-22EX-R/24VDC

Type designation	IM1-22EX-R/24VDC
Ident-No.	7541210
Nominal voltage	24 VDC
Operating voltage range	10...30 VDC
Power dissipation, typ.	≤ 0.99 W
NAMUR input	
NAMUR	EN 60947-5-6
Input circuit monitoring	on/off switchable
No-load voltage	8 VDC
Short-circuit current	8 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 (digital)	2 x relays (NO)
Output switching voltage relay	≤ 30 VDC / ≤ 250 VAC
Switching current per output	≤ 2 A
Switching capacity per output	≤ 500 VA/60 W
Switching frequency	≤ 10 Hz
Contact quality	AgNi, 3μ Au
Important note	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	PTB 00 ATEX 2033
Application area	II (1) G, II (1) D
Ignition protection category	[Ex ia Ga] IIC; [Ex ia Da] IIIC
Indication	
Operational readiness	green
Switching state	Yellow
State/ Fault	2 x yellow / red
Error indication	red
Mechanical Data	
Protection class	IP20
Flammability class acc. to UL 94	V-0
Ambient temperature	-25...+60 °C -25 ... +60 °C für FM
Storage temperature	-40...+80 °C
Relative humidity	≤ 95 %
Dimensions	104 x 18 x 110 mm
Weight	142 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Polycarbonate/ABS
Electrical connection	4 x 3-pin removable terminal blocks, reverse polarity protected, screw terminal
Terminal cross-section	1 x 2.5 mm ² / 2 x 1.5 mm ²
Tightening torque	0.5 Nm

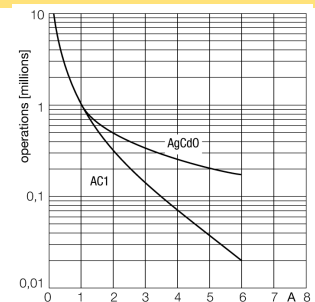
Dimensions



Output relay – Load curve

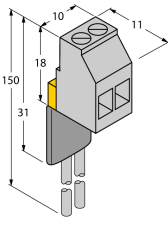
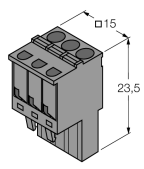


Output relay – Electrical lifetime



**Isolating switching amplifier
2-channel
IM1-22EX-R/24VDC**

Accessories

Type code	Ident-No.	Description	Dimension drawing
WM1	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.	 <p>Technical drawing of the resistor module WM1 showing dimensions: 10 mm width, 11 mm depth, 18 mm height, 150 mm total height, and 31 mm mounting height.</p>
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.	 <p>Technical drawing of the cage clamp terminals showing dimensions: 15 mm width and 23.5 mm height.</p>