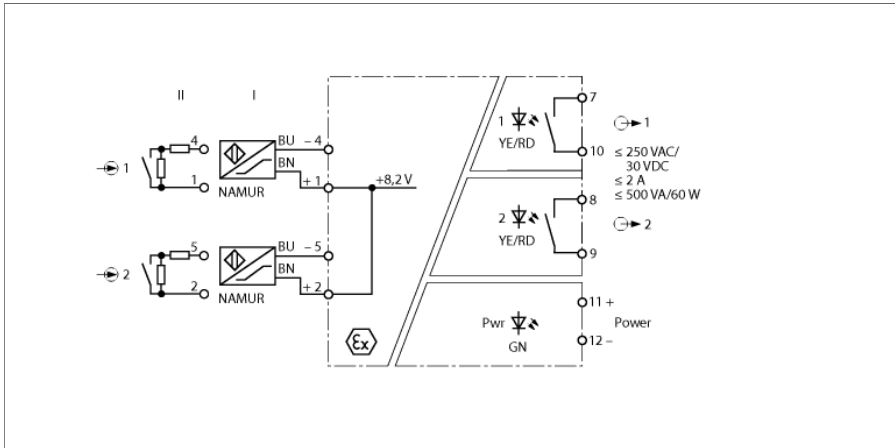


# Isolating switching amplifier 2-channel IM1-22EX-R/24VDC



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

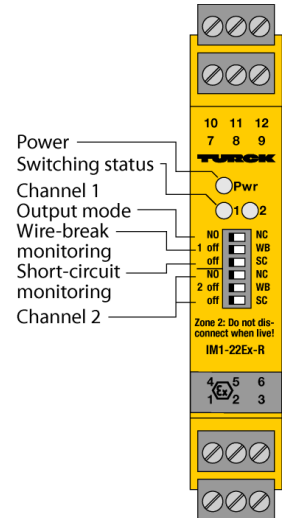
Sensors according to EN 60947-5-6 (NAMUR) or potential-free contactors can be connected to the device.

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

Via six switches on the front, the output mode (working or quiescent current behavior, i.e. NO/NC) as well as wire-break monitoring (WB) and short-circuit monitoring (SC) can be switched on and off separately for each channel.

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.

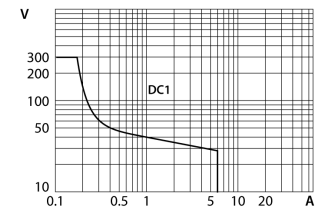


- Adjustable output mode (NO/NC)
- Input circuits monitored for wire-break/short-circuit (ON/OFF switchable)
- Complete galvanic isolation
- ATEX, <sub>c</sub>FM<sub>US</sub>, TR CU

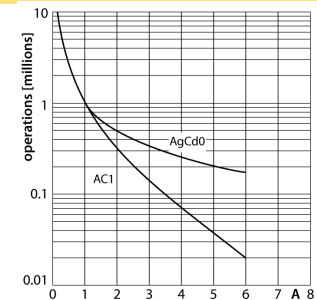
## Dimensions



## Output relay – Load curve



## Output relay – Electrical lifetime



Type	IM1-22EX-R/24VDC
ID	7541210
Nominal voltage	24 VDC
Operating voltage $U_s$	10...30 VDC
Power dissipation, typical	≤ 0.99 W

<b>NAMUR input</b>	
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

<b>Output circuits</b>	
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

<b>Important note</b>	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

<b>Displays/Operating elements</b>	
Operational readiness	Green
Switching state	Yellow
State/ Fault	2 x yellow/red
Error indication	red

<b>Mechanical data</b>	
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
Dimensions	104 x 18 x 110 mm
Weight	152 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Plastic, Polycarbonate/ABS
Electrical connection	4 x 3-pin removable terminal blocks, reverse polarity protected, screw terminal
Terminal cross-section	1 x 2.5 mm <sup>2</sup> /2 x 1.5 mm <sup>2</sup>
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.	