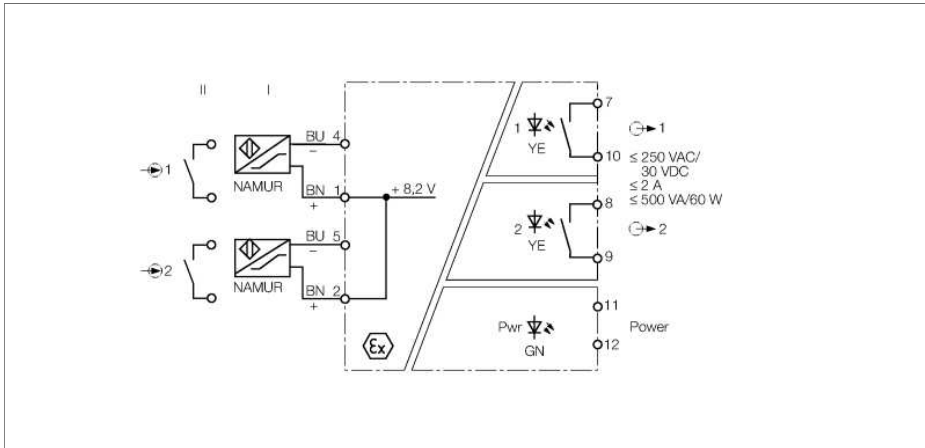


**Isolating switching amplifier
2-channel
IM12-22EX-R**



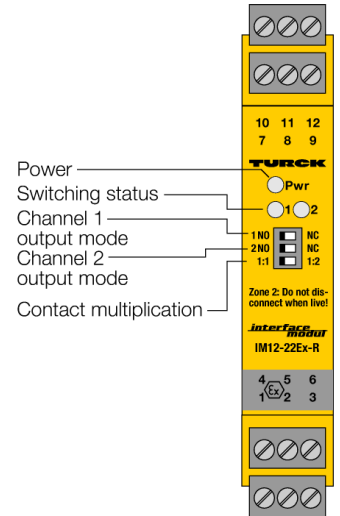
The dual-channel isolating switching amplifier IM12-22EX-R is equipped with intrinsically safe input circuits.

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

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

Three front panel switches are available to set the output mode separately for each channel (NO/NC mode), as well as to fan out signals. The switching state of channel 1 is thereby transmitted to the outputs 1 and 2. The output mode of each channel can also be adjusted separately.

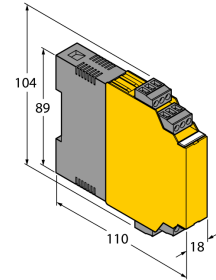
The green LED indicates operational readiness. The yellow LEDs indicate the switching status of the corresponding output.



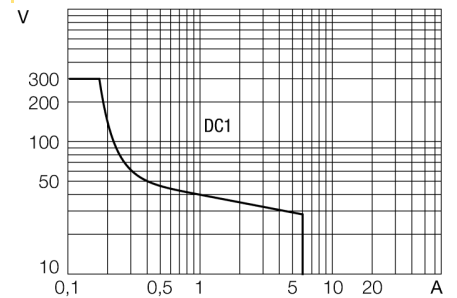
- Intrinsically safe input circuits Ex ia
- Installation in zone 2
- FM, NEPSI
- Application area acc. to ATEX: II (1) G, II (1) D; II G 3
- 2 relay outputs (NO)
- Adjustable signal flow direction (NO/NC)
- Signal fanning possible
- Removable terminal blocks
- Complete galvanic separation

**Isolating switching amplifier
2-channel
IM12-22EX-R**

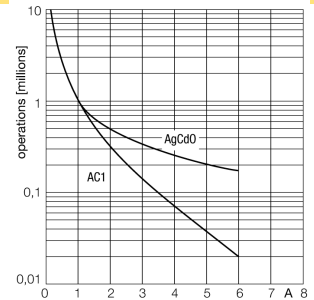
Dimensions



Load curve



Output relay electrical lifetime



Type code	IM12-22EX-R																					
Ident no.	7541233																					
Nominal voltage	Universal voltage supply unit																					
Operating voltage	20...250 VAC																					
Frequency	40...70 Hz																					
Operating voltage range	20...125 VDC																					
Power consumption	≤ 3 W																					
NAMUR	EN-60947-5-6																					
No-load voltage	8.2 VDC																					
Short-circuit current	8.2 mA																					
Input resistance	1 kΩ																					
Cable resistance	≤ 50 Ω																					
Switch-on threshold:	1.55 mA																					
Switch-off threshold:	1.75 mA																					
Output circuits (digital)	2 x relays (NO)																					
Relay switching voltage	≤ 250 VAC/120 VDC																					
Switching current per output	≤ 2 A																					
Switching capacity per output	≤ 500 VA/60 W																					
Switching frequency	≤ 10 Hz																					
Contact quality	AgNi, 3μ Au																					
Galvanic separation																						
Test voltage	2.5 kV																					
Ex approval acc. to conformity certificate	TÜV 04 ATEX 2553																					
Application area	II (1) G, II (1) D																					
Protection type	[Ex ia Ga] IIC; [Ex ia Da] IIIC																					
Max. output voltage U _o	≤ 9.6 V																					
Max. output current I _o	≤ 11 mA																					
Max. output power P _o	≤ 26 mW																					
Rated voltage	250 V																					
Characteristic	linear																					
Internal inductance/capacitance L _i /C _i	L _i = 65 μH, C _i negligibly small																					
External inductance/capacitance L _e /C _e																						
	<table border="1"> <thead> <tr> <th>Ex ia</th> <th colspan="3">IIC</th> <th colspan="3">IIB</th> </tr> </thead> <tbody> <tr> <td>Lo [mH]</td> <td>1</td> <td>5</td> <td>10</td> <td>2</td> <td>10</td> <td>20</td> </tr> <tr> <td>Co [μF]</td> <td>1,1</td> <td>0,83</td> <td>0,74</td> <td>5,2</td> <td>3,8</td> <td>3,4</td> </tr> </tbody> </table>	Ex ia	IIC			IIB			Lo [mH]	1	5	10	2	10	20	Co [μF]	1,1	0,83	0,74	5,2	3,8	3,4
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Lo [mH]	1	5	10	2	10	20																
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Ex approval acc. to conformity certificate	TÜV 06 ATEX 552968 X																					
Application area	II 3 G																					
Protection class for belonging equipment	Ex nA nC [ic Gc] IIC/IIB T4 Gc																					
Max. output voltage U _o	≤ 9.6 V																					
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Lo [mH]	1	5	10	1	5	10																
Co [μF]	1.9	1.4	1.2	11	7.5	6.6																
MTTF	400 years acc. to SN 29500 (Ed. 99) 40 °C																					
Indication																						
Operational readiness	green																					
Switching state	yellow																					

**Isolating switching amplifier
2-channel
IM12-22EX-R**

Mechanical Data

Protection class	IP20
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Relative humidity	≤ 95%
Dimensions	104x 18x 110 mm
Weight	148 g
Mounting instruction	For mounting on DIN rail or mounting panel
Housing material	Polycarbonate/ABS
Electrical connection	4 x 3-pole removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm ² / 2 x 1.5 mm ²
Tightening torque	0.5 Nm

Accessories

Type code	Ident no.	Description	Dimension drawing
IM-CC-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex devices; width 18 mm); 2 blue/2 black, 3-pin, included in delivery.	