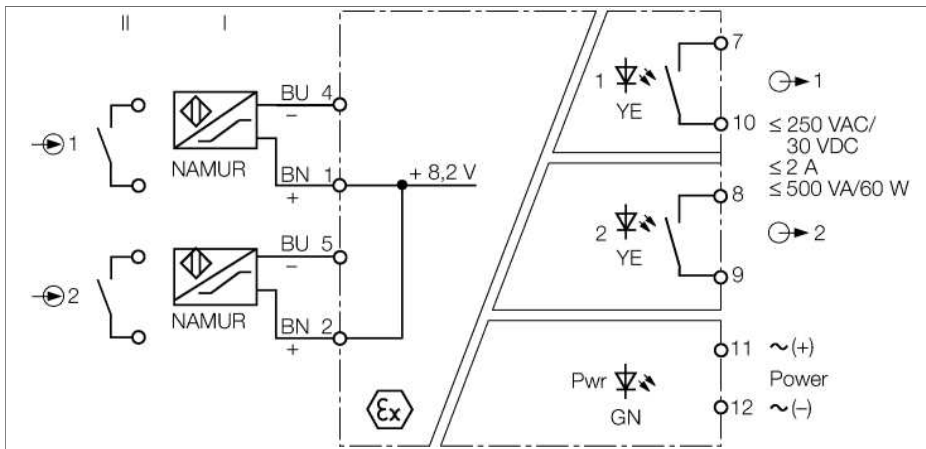


**Isolating switching amplifier  
2-channel  
IM12-22EX-R/230VAC**



The dual-channel isolating switching amplifier IM12-22EX-R/230VAC is equipped with intrinsically safe input circuits.

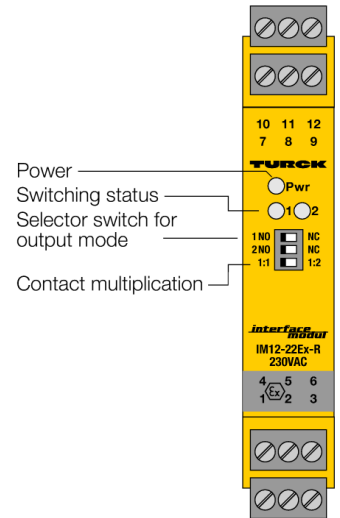
Sensors according to EN 60947-5-6 (NAMUR) can be connected to the device or potential-free contactors.

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 or NC mode), as well as to enable/disable wire-break (WB) and short-circuit (SC) monitoring separately.

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.

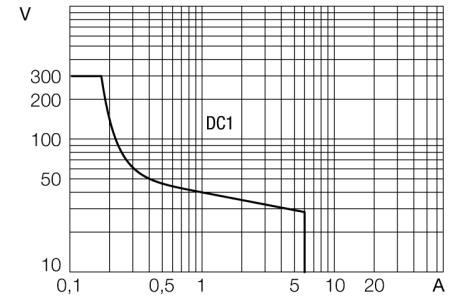
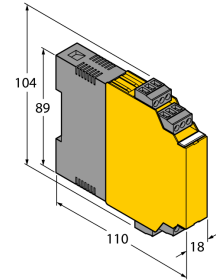


- Intrinsically safe input circuits Ex ia
- Application area acc. to ATEX: II (1) G; II (1) D
- Signal flow direction adjustable (NO/NC)
- Signal fanning possible
- Removable terminal blocks
- Complete galvanic separation

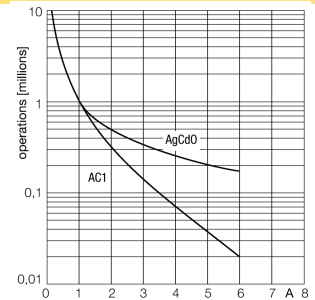
**Isolating switching amplifier  
2-channel  
IM12-22EX-R/230VAC**

<b>Type code</b>	IM12-22EX-R/230VAC																				
Ident no.	7505641																				
<b>Nominal voltage</b>	230VAC																				
Operating voltage	196...253 VAC																				
Frequency	48...62 Hz																				
Power consumption	≤ 7 VA																				
<b>NAMUR</b>	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																				
<b>Output circuits (digital)</b>	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																				
<b>Galvanic separation</b>																					
Test voltage	2.5 kV																				
<b>Ex approval acc. to conformity certificate</b>	PTB 00 ATEX 2033																				
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 $I_o$	≤ 21.4 mA																				
Max. output power $P_o$	≤ 26 mW																				
Rated voltage	250 V																				
Characteristic	linear																				
Internal inductance/capacitance $L/C_i$	C, negligibly small, $L_i$ = negligibly small																				
External inductance/capacitance $L_e/C_e$																					
	<table border="1"> <thead> <tr> <th></th> <th>Ex ia</th> <th>IIC</th> <th colspan="2">IIIC</th> </tr> </thead> <tbody> <tr> <td>Lo [mH]</td> <td>1</td> <td>5</td> <td>1</td> <td>5</td> </tr> <tr> <td>Co [μF] (2 Klemmen)</td> <td>1,1</td> <td>0,84</td> <td>6,2</td> <td>4,4</td> </tr> <tr> <td>Co [μF] (3 Klemmen oder mehr)</td> <td>1,1</td> <td>0,8</td> <td>6,2</td> <td>4,3</td> </tr> </tbody> </table>		Ex ia	IIC	IIIC		Lo [mH]	1	5	1	5	Co [μF] (2 Klemmen)	1,1	0,84	6,2	4,4	Co [μF] (3 Klemmen oder mehr)	1,1	0,8	6,2	4,3
	Ex ia	IIC	IIIC																		
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Co [μF] (2 Klemmen)	1,1	0,84	6,2	4,4																	
Co [μF] (3 Klemmen oder mehr)	1,1	0,8	6,2	4,3																	
<b>MTTF</b>	400 years acc. to SN 29500 (Ed. 99) 40 °C																				
<b>Indication</b>																					
Operational readiness	green																				
Switching state	yellow																				
<b>Mechanical Data</b>																					
Protection class	IP20																				
Ambient temperature	-25...+60 °C																				
Storage temperature	-40...+80 °C																				
Relative humidity	≤ 95%																				
Dimensions	104x 18x 110 mm																				
Weight	149 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 <sup>2</sup> / 2 x 1.5 mm <sup>2</sup>																				
Tightening torque	0.5 Nm																				

**Dimensions**



**Output relay electrical lifetime**



**Isolating switching amplifier  
2-channel  
IM12-22EX-R/230VAC**

**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.	