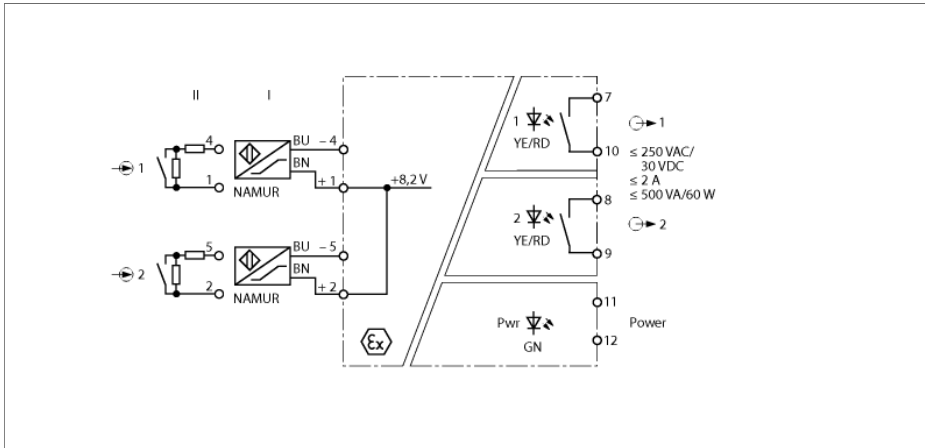


**Isolating switching amplifier
2-channel
IM1-22EX-R/K51**

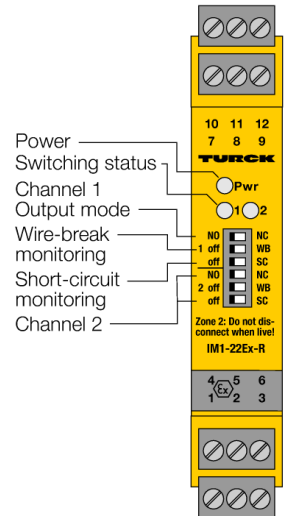


Sensors according to EN 60947-5-6 (NAMUR) can be connected to the device or potential-free contactors.

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.

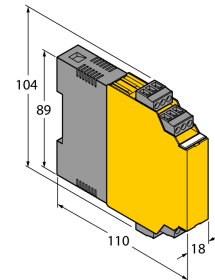
When using mechanical contacts, wire-break and short-circuit monitoring must be switched off or the contact must be wired with resistors (II) (see circuit diagram).

- Intrinsically safe input circuits Ex ia
- Installation in zone 2
- FM, NEPSI
- Application area [Exia] IIC/IIB and Ex nA nC [nL] IIC/IIB T4
- 2 relay outputs (NO)
- Signal flow direction adjustable (NO/NC)
- Input circuits monitored for wire-break/short-circuit (ON/OFF switchable)
- Removable terminal blocks
- Complete galvanic separation

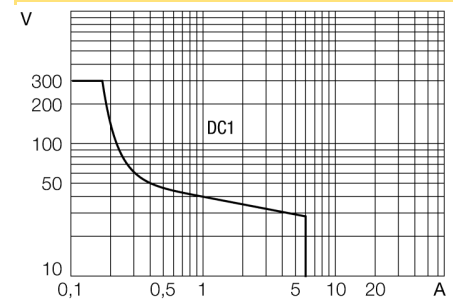


**Isolating switching amplifier
2-channel
IM1-22EX-R/K51**

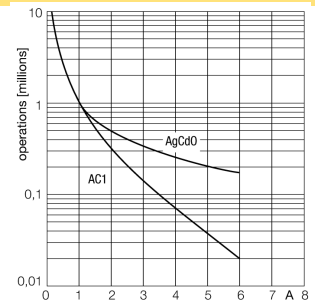
Dimensions



Load curve



Output relay electrical lifetime



Type code	IM1-22EX-R/K51																					
Ident no.	7541238																					
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																					
Wire breakage threshold	≤ 0.1 mA																					
Short-circuit threshold	≥ 6 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	4.0 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																					
Characteristic	linear																					
Internal inductance/capacitance L/C _i	$L_i = 65 \mu\text{H}$, C_i negligibly small																					
External inductance/capacitance L _e /C _e																						
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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																					
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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																					
Error indication	red																					

**Isolating switching amplifier
2-channel
IM1-22EX-R/K51**

Mechanical Data

Protection class	IP20
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Relative humidity	≤ 95%
Dimensions	104x 18x 110 mm
Weight	147 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.	