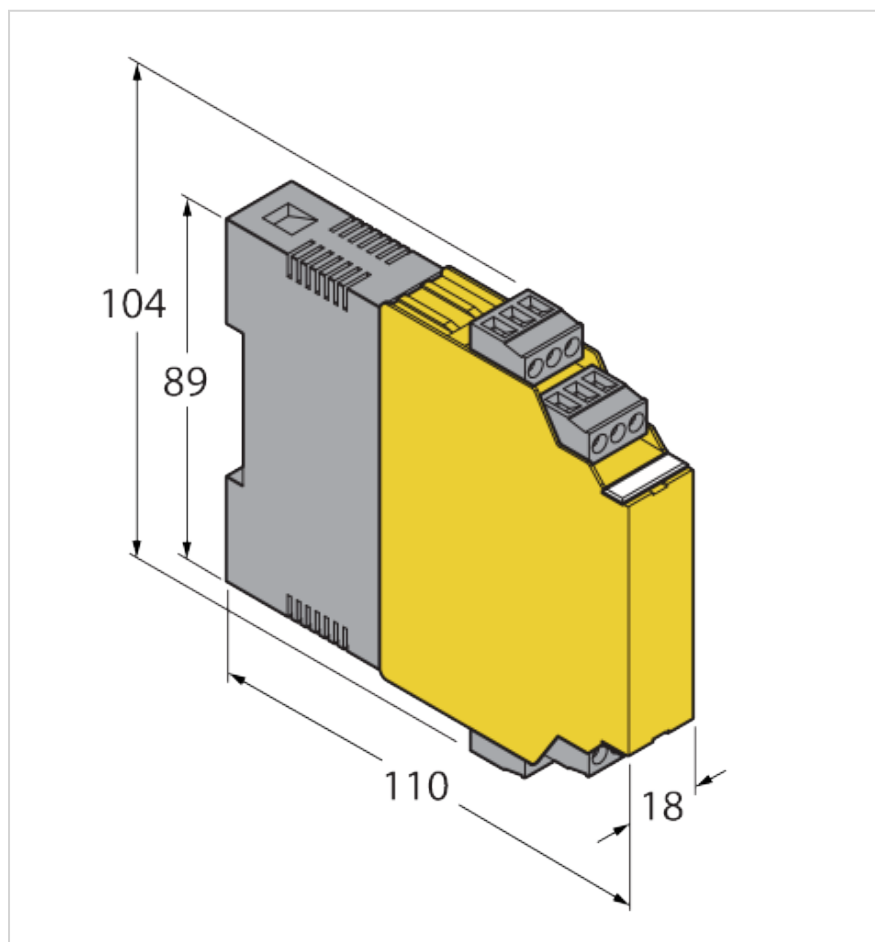


IM12-22EX-R

Isolating switching amplifier 2-channel



Type designation	IM12-22EX-R
Ident-No.	7541233

Technical data

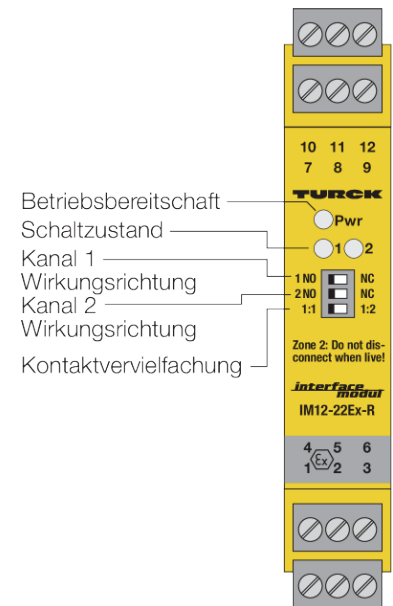
General data	
Device type	Isolating switching amplifier
Signal type	Digital input
Power supply	
Operating voltage U_B	20...250 VAC
Operating voltage U_B	20...125 VDC
Frequency	40...70 Hz
Nominal voltage	Wide voltage range

Features

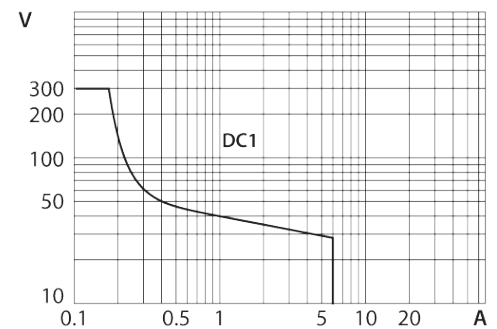
- Two relay outputs (NO contact)
- Adjustable output mode (NO/NC mode)
- Signal multiplexing functionality
 - Complete galvanic isolation
 - Input reverse-polarity protected
- ATEX, IECEx, cUL, cFM, CSA, TR CU, NEPSI, KOSHA, TIIS, CCOE, INMETRO
- For use in Zone 2

Technical data

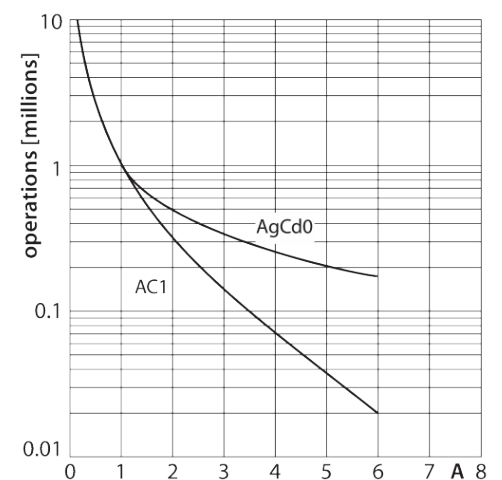
Power consumption	≤ 3 W
Nominal voltage	Universal voltage supply unit
Power supply	widerange
Electrical data	
Input	2-channel or 1-channel with signal doubling
Switching frequency	≤ 10 Hz
Inputs/Outputs	
Number of channels	2
Inputs	
Cable resistance	≤50 Ω
Switching threshold on/off	1.55/1,75 mA
Input resistance	1 kΩ
NAMUR	EN 60947-5-6
No-load voltage	8,2 VDC
Number of digital inputs	2
Number of NAMUR inputs	2
Short-circuit current	8,2 mA
Outputs	
Output switching voltage relay	30 VDC/250 VAC
Digital output	Relay output
Number of digital outputs	2
Output 2	Adjustable output mode
Output circuits (digital)	2 x relays (NO)
Switching capacity per output	≤500 VA/60 W
Switching current per output	≤2 A
Galvanic isolation	
Test voltage	2.5 kV RMS
Mechanical data	
Dimensions	104 mm x 18 mm x 110 mm
Housing material	Plastic, Polycarbonate/ABS
Electrical connection	4 x 3-pin removable terminal blocks, reverse polarity protected, screw terminal
Terminal cross-section	1 × 2.5 mm²/2 × 1.5 mm²
Design	Modular housing
Suitable for row installation	yes
Tightening torque	0,5 Nm



Output relay — load curve



Output relay — electrical lifetime



Technical data

Mounting instructions	DIN rail (NS35) or panel
Ambient conditions	
Ambient temperature	-25...+70 °C
	-25 ... +60 °C für UL, FM, TIIS
Storage temperature	-40...+80 °C
Relative humidity	95 %
Protection class	IP20
Standards/directives	
Flammability class acc. to UL 94	V-0
Tests/approvals	
Important note	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	IECEx TUN 06.0006X
Ex approval acc. to conformity certificate	TÜV 21 ATEX 303590 X
Device designation	□ II (1) G, II (1) D [Ex ia Ga] IIC; [Ex ia Da] IIIC
Ex approval acc. to conformity certificate	TÜV 06 ATEX 552968 X
Device designation	II 3 G Ex nA nC [ic Gc] IIC/IIB T4 Gc
Displays/controls	
Error indication	red
Power on display	Green
Switching state	Yellow
Other properties	
RoHs compatibility	yes

The 2-channel IM12-22EX-R 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.

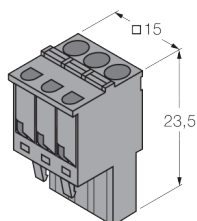
The output mode (working or quiescent current behavior, i.e. NO/ NC) can be set via three switches on the front. The switching state of channel 1 is thereby transmitted to outputs 1 and 2.

The Pwr LED lights green to indicate operational readiness. LED 1 lights yellow to indicate the switching status of the output.

Mounting accessories

IM-CC-3X2BU/2BK

6900475



Spring-type terminals for IM modules (Ex devices with 18 mm overall width); includes: 2 × 3-pin blue terminals and 2 × 3-pin black terminals.

Circuit diagram

