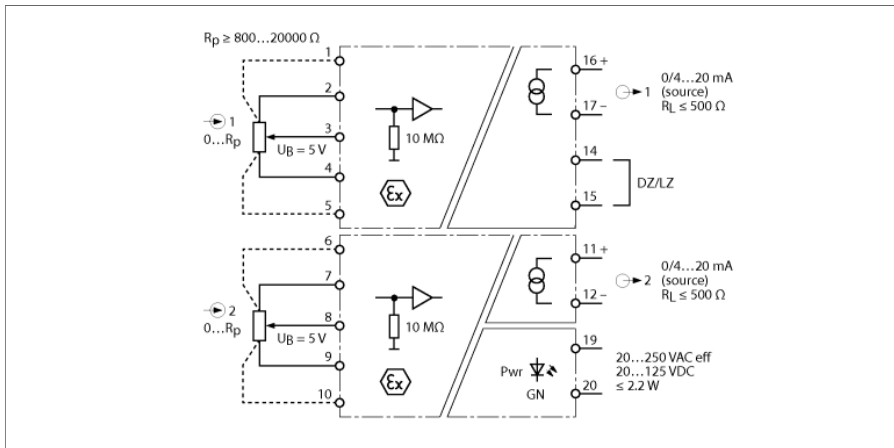


Potentiometer Amplifier

2-channel

IM36-22EX-I

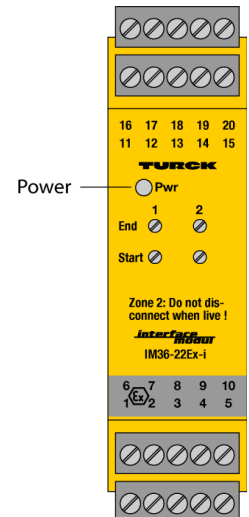


The 2-channel potentiometer amplifier IM36-22EX-I is designed to transmit signals from 3/5-wire potentiometers galvanically isolated from the Ex area to the non-Ex area and to convert them into normalized 0/4...20 mA analog signals. Live-zero operation is activated for both channels through bridging terminals 14 and 15. The resistance value of the wiper contact, ranging from 0 Ω to the nominal resistance value (final value) of the potentiometer, is detected and linearly processed.

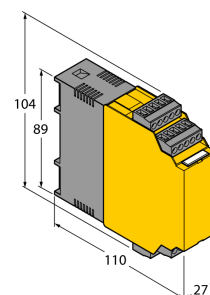
A potentiometer is defined by its nominal resistance value. Any potentiometer can be connected, provided the nominal resistance is 800 ... 100000 Ω. Common potentiometers featuring a nominal resistance of 1 kΩ or 10 kΩ can thus be used. The admissible line resistance is maximally 50 Ω with a potentiometer resistance of 800 Ω.

The incremental potentiometer's start and end point can be adjusted separately for each channel. This is necessary to protect the incremental potentiometer from damage which can be caused by critical rotation angles smaller than 5% and greater than 95% of the absolute rotational torque.

- Transmission of potentiometer signals from the Ex area
- Potentiometer, nominal resistance: 0.8... 100 kΩ
- Output circuit: 0/4...20 mA
- Complete galvanic isolation
- Input reverse-polarity protected
- ATEX, IECEx, TR CU, KOSHA
- Installation in zone 2



Type	IM36-22EX-I
ID	7509528
Nominal voltage	Universal voltage supply unit
Operating voltage	20...250 VAC
Frequency	40...70 Hz
Operating voltage U_o	20...125 VDC
Power consumption	$\leq 2.2 \text{ W}$
Input circuits	Potentiometer
Potentiometer input	
Cable resistance	$\leq 50 \Omega$
Voltage on resistor	5 VDC
Nominal resistance	0.8...100 k Ω
Output circuits	
Output current	0/4...20 mA
Response characteristic	
Rise time (10...90 %)	$\leq 35 \text{ ms}$
Fall time (90...10 %)	$\leq 40 \text{ ms}$
Linearity deviation	$\leq 0.1 \%$
Temperature drift	$\leq 0.01 \%$ of full scale/K
Galvanic isolation	
Test voltage	2.5 kV RMS
Important note	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	TÜV 12 ATEX 093477
Application area	II (1) G, II (1) D
Ignition protection category	[Ex ia Ga] IIC; [Ex ia Da] IIIC
Ex approval acc. to conformity certificate	TÜV 12 ATEX 093479 X
Application area	II 3 G
Ignition protection type	Ex nA nC [ic Gc] IIC T4 Gc
Characteristic	linear
Displays/Operating elements	
Operational readiness	Green
Mechanical data	
Protection class	IP20
Flammability class acc. to UL 94	V-0
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Dimensions	104 x 27 x 110 mm
Weight	202 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Plastic, Polycarbonate/ABS
Electrical connection	4 x 5-pin removable terminal blocks, reverse polarity protected, screw terminal
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.		Dimension drawing
IM-CC-5X2BU/2BK	7504031	Cage clamp terminals for IM modules (Ex-devices with 27 mm overall width); includes: 2 pcs. 5-pin blue terminals and 2 pcs. 5-pin black terminals.	