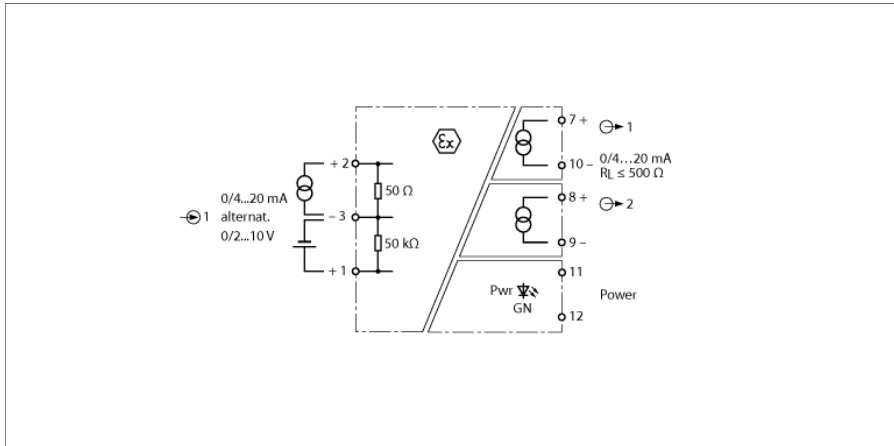


Analog signal isolator 1-channel IM31-12EX-I

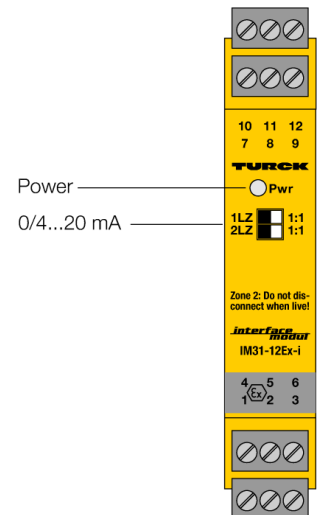


Normalized active voltage or current signals are transmitted galvanically isolated from the Ex area to the non-Ex area via the 1-channel analog signal isolator IM31-12EX-I. The signal is duplicated and provided at both outputs.

The device is equipped with one input circuit of 0/2...10 V or 0/4...20 mA and two short-circuit proof output circuits of 0/4...20 mA.

The transmission characteristic is adjusted via a DIP switch on the front. In switch position 1:1 the input signals are transmitted without interference and made available at the outputs in the non-Ex area. In "LZ" switch position, a dead-zero signal at the input (0...10 V or 0...20 mA) is converted and provided as a live-zero signal at the output (4...20 mA).

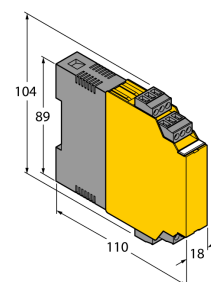
A green LED indicates operational readiness.



- Transmission of normalized analog signals from the Ex area to the non-Ex area
- Input circuit: 0/2...10 V or 0/4...20 mA
- Output circuit: 2 x 0/4 0...20 mA
- Complete galvanic isolation
- Input reverse-polarity protected
- ATEX, IECEx, UL, cFM_{US}, TR CU, NEPSI, KOSHA
- Installation in zone 2

Dimensions

Type	IM31-12EX-I
ID	7506321
Nominal voltage	Universal voltage supply unit
Operating voltage	20...250 VAC
Frequency	40...70 Hz
Operating voltage U_o	20...125 VDC
Power consumption	$\leq 2.2 \text{ W}$
Voltage input	0/2...10 VDC
Input resistance (voltage)	$\geq 50 \text{ k}\Omega$
Input current	0/4...20 mA
Input resistance (current)	$\leq 50 \Omega$
Output circuits	
Output current	0/4...20 mA
Load resistance current output	$\leq 0.5 \text{ k}\Omega$
Response characteristic	
Rise time (10...90 %)	$\leq 50 \text{ ms}$
Fall time (90...10 %)	$\leq 50 \text{ ms}$
Measuring accuracy (including linearity, hysteresis and repeatability)	$\leq 0.1 \text{ % of full scale}$
Reference temperature	23 °C
Temperature drift	$\leq 0.005 \text{ % of full scale/K}$
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 04 ATEX 2679
Application area	II (1) G; II (1) D
Ignition protection category	[Ex ia Ga] IIC/IIB; [Ex ia Da] IIIC
Ex approval acc. to conformity certificate	TÜV 06 ATEX 553387 X
Application area	II 3 G
Ignition protection type	Ex nA [ic Gc] IIC/IIB 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
	-25 ... +60 °C für UL, FM
Storage temperature	-40...+80 °C
Dimensions	104 x 18 x 110 mm
Weight	157 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Plastic, Polycarbonate/ABS
Electrical connection	4 x 3-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-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex-devices with 18 mm overall width); includes: 2 pcs. 3-pin blue terminals and 2 pcs. 3-pin black terminals.	