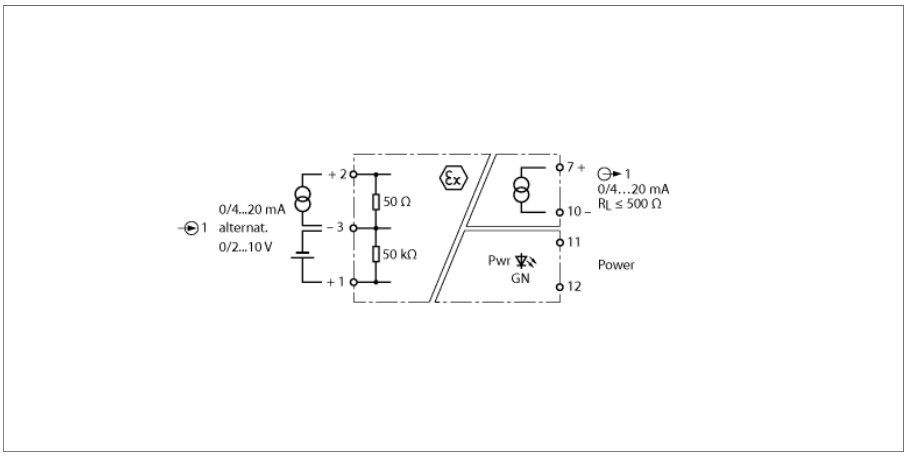
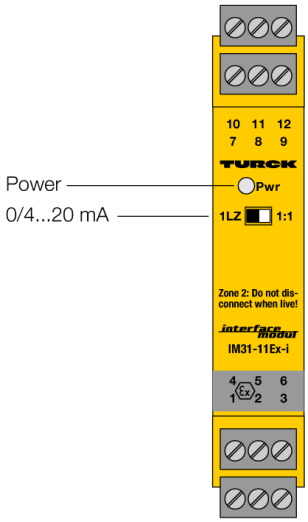
# Analog signal isolator
# 1-channel
# IM31-11EX-I




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 IM31-11EX-I.

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

The transmission characteristic is adjusted via a DIP switch on the front. In switch position 1:1 the input signal is 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 / 0…20 mA) is converted and provided as a live-zero signal at the associated output (4…20 mA).

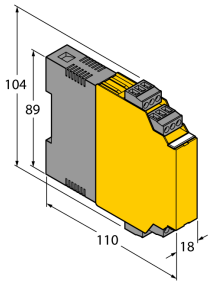
A green LED indicates operational readiness.

- 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: 0/4…20 mA
- Complete galvanic isolation
- Input reverse-polarity protected
- ATEX, IECEx, UL, cFMus, TR CU, NEPSI, KOSHA
- Installation in zone 2

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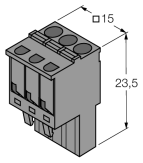
| | |
|---|---|
| Type | IM31-11EX-I |
| ID | 7506320 |
| | |
| Nominal voltage | Universal voltage supply unit |
| Operating voltage | 20…250 VAC |
| Frequency | 40…70 Hz |
| Operating voltage $U_B$ | 20…125 VDC |
| Power consumption | ≤ 2.2 W |
| | |
| Voltage input | 0/2…10 VDC |
| Input resistance (voltage) | ≥ 50 kΩ |
| Input current | 0/4…20 mA |
| Input resistance (current) | ≤ 50 Ω |
| | |
| Output circuits | |
| Output current | 0/4…20 mA |
| Load resistance current output | ≤ 0.5 kΩ |
| | |
| Response characteristic | |
| Rise time (10…90 %) | ≤ 50 ms |
| Fall time (90…10 %) | ≤ 50 ms |
| Measuring accuracy (including linearity, hysteresis and repeatability) | ≤ 0.1 % of full scale |
| Reference temperature | 23 °C |
| Temperature drift | ≤ 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 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 | 146 g |
| Mounting instructions | DIN rail (NS35) or panel |
| Housing material | Plastic, Polycarbonate/ABS |
| Electrical connection | 4 × 3-pin removable terminal blocks, reverse polarity protected, screw terminal |
| Terminal cross-section | 1 × 2.5 mm²/2 × 1.5 mm² |
| Tightening torque | 0.5 Nm |

## Dimensions




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## 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. |  |

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