Normalized active voltage or current signals are transmitted galvanically isolated via the 1-channel analog signal isolator IM31-12-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 signal is transmitted without interference and made available at the outputs. 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.

- TR CU
- Transmission of normalized analog signals
- Input circuit: 0/2…10 V or 0/4…20 mA
- Output circuit: 2 × 0/4 0…20 mA
- Complete galvanic isolation
- Input reverse-polarity protected
Analog signal isolator
1-channel
IM31-12-I

<table>
<thead>
<tr>
<th>Type designation</th>
<th>IM31-12-I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ident no.</td>
<td>7506324</td>
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</tbody>
</table>

**Nominal voltage**
- Universal voltage supply unit
- Operating voltage: 20…250 VAC
- Frequency: 40…70 Hz
- Operating voltage range: 20…125 VDC
- Power consumption: ≤ 2.2 W

**Voltage input**
- Input voltage (voltage): 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

**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** ≤ 0.005 % of full scale/K

**Galvanic isolation**
- Test voltage: 2.5 kV

**Indication**
- Operational readiness: green

**Protection class**
- IP20
- V-0
- ≤ 95 %

**Ambient temperature**
- -25…+70 °C

**Storage temperature**
- -40…+80 °C

**Dimensions**
- 104 x 18 x 110 mm
- 136 g

**Mounting instructions**
- DIN rail (NS35) or panel

**Housing material**
- Polycarbonate/ABS

**Electrical connection**
- 4 × 3-pin removable terminal blocks, reverse polarity protected, screw terminal

**Terminal cross-section**
- 1 x 2.5 mm² / 2 x 1.5 mm²

**Tightening torque** 0.5Nm
## Accessories

<table>
<thead>
<tr>
<th>Type code</th>
<th>Ident no.</th>
<th>Description</th>
<th>Dimension drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM-CC-3X2BK/2BK</td>
<td>7541218</td>
<td>Cage clamp terminals for IM modules (Ex-devices with 18 mm overall width); includes: 4 pcs. of 3-pin black terminals</td>
<td></td>
</tr>
</tbody>
</table>