# SGZ-12-8-8-2-3-001


- two-wire circuits universal isolator with the translation
- free input and output standard, set using code switches
- additional 24V DC supply to power two-wire transmitters
- full galvanic isolation between input/output/supply circuits
- TS-35 DIN rail mounting

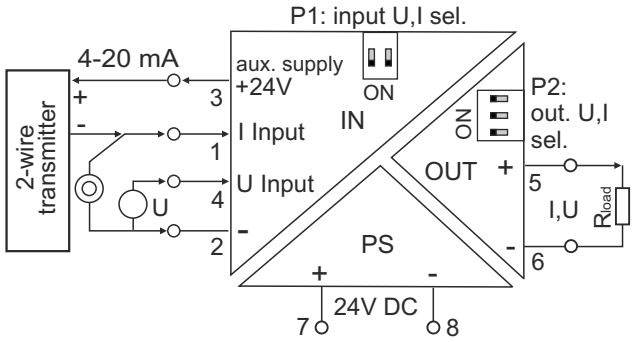
**SGZ-12-8-8-2-3-001** type isolators are dedicated for making a galvanic isolation between input measuring circuit and output circuit. It acts as universal isolator with user-adjustable standards of input and output signals. Settings of input and output standards 0...20 mA, 4...20 mA, 0...10 V, 2...10V are performed using two code switches: P1, P2 placed inside the housing. A two-position switch is located on the input side and a three-position switch is located on the output side. The isolator can function as a power supplyisolator for two-wire transmitters controlling separator input (terminals 1, 3). The device needs 24V DC of power supply. Input, output and supply circuits are mutually isolated. The using of isolators allows to reduce the impact of interference on drivers, controllers and recorders and ensures the safety of these devices isolating their inputs from hazards resulting from cooperation with distant signal sources (lightning, power energy, radio frequency interference, potential differences between the object and central unit). Possibility of changing of any input signal into any output signal makes it easy to fit devices working in various standards. User is allowed to correct zero point and measuring range, using two potentiometers mounted on the front panel of housing.

## TECHNICAL DATA

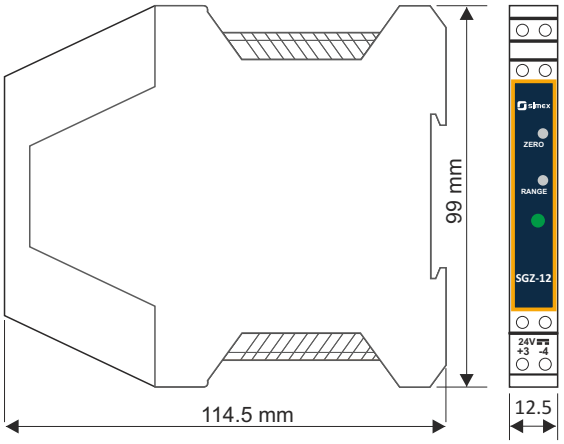
| | |
|---|---|
| **Power supply / consumption** | 21 ÷ 28 V DC / 60 mA |
| **Input signal (programmable by DIP switch)** | current: 0 ÷ 20 mA, 4 ÷ 20 mA<br>voltage: 0 ÷ 10V, 2 ÷ 10V |
| **Output signal (programmable by DIP switch)** | current: 0 ÷ 20 mA, 4 ÷ 20 mA<br>voltage: 0 ÷ 10V, 2 ÷ 10V |
| **Auxiliary supply** | 24V DC |
| **Load resistance** | current: 0 ÷ 20 mA, 4 ÷ 20 mA, resistance 0 ÷ 750 Ω<br>voltage: 0 ÷ 10V, 2 ÷ 10V, resistance ≥ 4 kΩ<br>error: ±0.02% |
| **Galvanic isolation** | 2kV, 50Hz or equivalent |
| **Accuracy** | ±0.15% |
| **Time constant** | 0.2s |
| **Temperature drift** | ±0.015% / °C |
| **Nonlinearity** | ±0.05% |
| **IP protection** | IP 40 |
| **Operating temperature** | -5°C ÷ +55°C |
| **Dimensions (WxHxD)** | 12.5 x 99 x 114.5 mm |
| **Mounting** | TS-35 DIN rail |

## TYPICAL CONNECTIONS

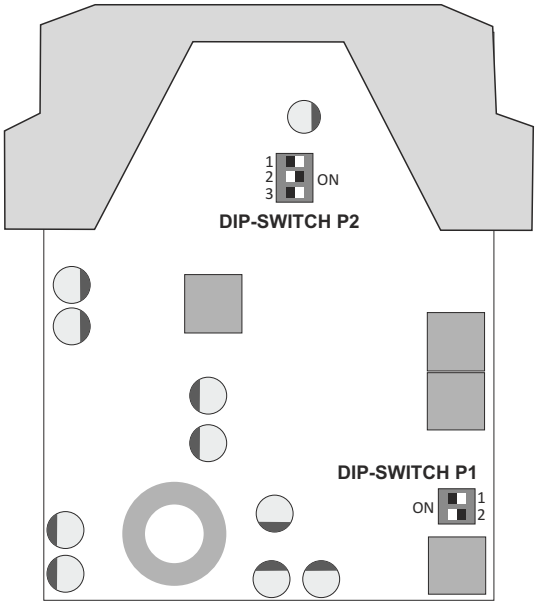
Galvanic isolation between input / output / power supply circuits




## CASE DIMENSIONS



## SETTING OF CODE SWITCHES FOR SELECTED INPUT AND OUTPUT STANDARDS




The input and output standard settings are made by setting the code switch levers (one set of switches on the input terminal side and one set of switches on the output terminal side) according the table below.
„Zero" and „Range" calibration are made within 8% with the potentiometers accessible through the holes in the front panel.
On request, other input and output signals can be set.

| | | | | Switch position | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | P1 | | P2 | | |
| Input range | Connector | Output range | Connector | 1 | 2 | 1 | 2 | 3 |
| 0...20 mA | +1, -2 | 0...20 mA | +5, -6 | OFF | OFF | OFF | ON | OFF |
| 0...20 mA | +1, 2 | 4...20 mA | +5, 6 | ON | OFF | OFF | ON | OFF |
| 0...20 mA | +1, -2 | 0...10 V | +5, -6 | OFF | OFF | ON | OFF | ON |
| 0...20 mA | +1, -2 | 2...10 V | +5, -6 | ON | OFF | ON | OFF | ON |
| 4...20 mA | +1, -2 | 0...20 mA | +5, -6 | OFF | ON | OFF | ON | OFF |
| 4...20 mA | +1, -2 | 4...20 mA | +5, -6 | OFF | OFF | OFF | ON | OFF |
| 4...20 mA | +1, -2 | 0...10 V | +5, -6 | OFF | ON | ON | OFF | ON |
| 4...20 mA | +1, -2 | 2...10 V | +5, -6 | OFF | OFF | ON | OFF | ON |
| 0...10 V | +4, -2 | 0...20 mA | +5, -6 | OFF | OFF | OFF | ON | OFF |
| 0...10 V | +4, -2 | 4...20 mA | +5, -6 | ON | OFF | OFF | ON | OFF |
| 0...10 V | +4, -2 | 0...10 V | +5, -6 | OFF | OFF | ON | OFF | ON |
| 0...10 V | +4, -2 | 2...10 V | +5, -6 | ON | OFF | ON | OFF | ON |
| 2...10 V | +4, -2 | 0...20 mA | +5, -6 | OFF | ON | OFF | ON | OFF |
| 2...10 V | +4, -2 | 4...20 mA | +5, -6 | OFF | OFF | OFF | ON | OFF |
| 2...10 V | +4, -2 | 0...10 V | +5, -6 | OFF | ON | ON | OFF | ON |
| 2...10 V | +4, -2 | 2...10 V | +5, -6 | OFF | OFF | ON | OFF | ON |
| Two-wire converter | +3, -1 | 0...20 mA | +5, -6 | OFF | ON | OFF | ON | OFF |
| Two-wire converter | +3, -1 | 4...20 mA | +5, -6 | OFF | OFF | OFF | ON | OFF |
| Two-wire converter | +3, -1 | 0...10 V | +5, -6 | OFF | ON | ON | OFF | ON |
| Two-wire converter | +3, -1 | 2...10 V | +5, -6 | OFF | OFF | ON | OFF | ON |

## ORDERING

**SGZ-12-8-8-2-3-001**