

## ISO 10 - GALVANIC ISOLATOR / SIGNAL CONVERTER

ISO 10 module provides galvanic isolation between the input and output signals and supply voltage. ISO 10 can also be used as a signal converter and amplifier between wide ranges of signal options.

Galvanic isolation may be needed if the system has multiple grounding points. Potential difference between the grounding points causes loop currents, which may interfere with the transferred signal. ISO 10 breaks the ground loop current path.

ISO 10 can be used if the device signal ground is not referenced to supply voltage ground, for example a device with full-wave rectified input.

Supply voltage terminals can be found on the both sides of the device. The 5-pin plug-in terminals help the device connecting.

An external 2-wire transmitter can be supplied from the +V terminal (max. 15 V / 20 mA). The +V terminal is referenced to input side ground.

### Input and output signal range selection:

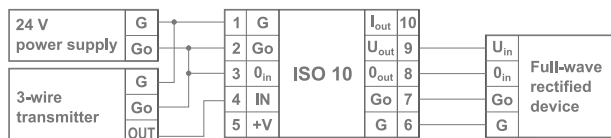
| Input             | U-out             | I-out              | 1  | 2  | 3  |
|-------------------|-------------------|--------------------|----|----|----|
| 0...1 V           | 0...10 V          | 0...20 mA          |    | ON |    |
| 0...1 V           | 2...10 V          | 4...20 mA          |    | ON | ON |
| <b>* 0...10 V</b> | <b>* 0...10 V</b> | <b>* 0...20 mA</b> |    |    |    |
| 0...10 V          | 2...10 V          | 4...20 mA          |    |    | ON |
| 2...10 V          | 0...10 V          | 0...20 mA          | ON |    |    |
| 4(0)...20 mA      | 2(0)...10 V       | 4(0)...20 mA       | ON | ON | ON |
| 0...20 mA         | 2...10 V          | 4...20 mA          | ON | ON |    |
| 4...20 mA         | 0...10 V          | 0...20 mA          | ON |    | ON |

\* factory setting



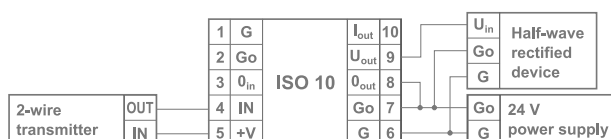
### Wiring example 1: Signal isolation

Output signal is galvanically isolated from the power supply and input signal.



### Wiring example 2: Signal isolation/conversion

Input signal is galvanically isolated from the power supply and output signal.



### Technical data:

|                                                                                 |                                                    |
|---------------------------------------------------------------------------------|----------------------------------------------------|
| Supply                                                                          | 24 Vac (22...28 V)<br>24 Vdc (24...28 V)           |
| Power consumption                                                               | < 2 VA                                             |
| Isolation voltage                                                               | < 500 Vdc                                          |
| Input                                                                           |                                                    |
| Voltage                                                                         | 0...1 V / 0...10 V / 2...10 V,<br>impedance 100 kΩ |
| Current                                                                         | 0...20 mA / 4...20 mA                              |
| Output                                                                          |                                                    |
| Voltage                                                                         | 0/2...10 V, load +2 mA / -0,5 mA                   |
| Current                                                                         | 0/4...20 mA, loop resistance max.<br>500 Ω         |
| Deviation                                                                       | < 0,35 % FSO*) (25 °C)                             |
| Response time                                                                   | about 1 s                                          |
| Ambient temperature                                                             | 0...50°C                                           |
| Protection class                                                                | IP20                                               |
| Dimensions (w x h x d)                                                          | 18 x 114 x 80 mm                                   |
| *) U <sub>in</sub> vs U <sub>out</sub> or mA <sub>in</sub> vs mA <sub>out</sub> |                                                    |

### Wiring:

#### Bottom connector

|   |                 |                       |
|---|-----------------|-----------------------|
| 1 | G               | 24 Vac/dc, supply     |
| 2 | Go              | 0 V, supply           |
| 3 | O <sub>in</sub> | 0 V, input            |
| 4 | IN              | Signal input V / mA   |
| 5 | +V              | 15 Vdc / 20 mA output |

#### Top connector

|    |                  |                       |
|----|------------------|-----------------------|
| 6  | G                | 24 Vac/dc, supply     |
| 7  | Go               | 0 V, supply           |
| 8  | O <sub>out</sub> | 0 V, output           |
| 9  | U <sub>out</sub> | Voltage signal output |
| 10 | I <sub>out</sub> | Current signal output |

### Ordering guide:

| Model  | Product number | Description          |
|--------|----------------|----------------------|
| ISO 10 | 1182060        | isolator / converter |

Products fulfil the requirements of directive 2014/30/EU and are in accordance with the standards EN61000-6-3 (Emission) and EN61000-6-2 (Immunity).