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DATA SHEET

ISO 10

Produal

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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:

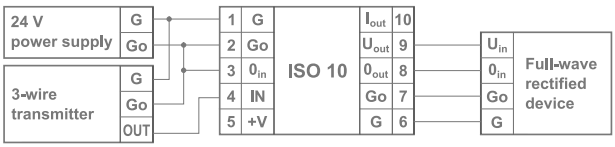
Input	U-out	I-out	1	2	3
0…1 V	0…10 V	0…20 mA		ON	
0…1 V	2…10 V	4…20 mA		ON	ON
*** 0…10 V**	*** 0…10 V**	*** 0…20 mA**			
0…10 V	2…10 V	4…20 mA			ON
2…10 V	0…10 V	0…20 mA	ON		
4(0)…20 mA	2(0)…10 V	4(0)…20 mA	ON	ON	ON
0…20 mA	2…10 V	4…20 mA	ON	ON	
4…20 mA	0…10 V	0…20 mA	ON		ON

* factory setting



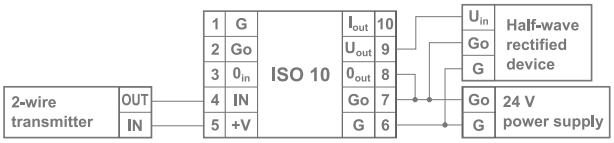
Wiring example 1: Signal isolation

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)
	24 Vdc (24…28 V)
Power consumption	< 2 VA
Isolation voltage	< 500 Vdc
Input	
Voltage	0...1 V / 0...10 V / 2...10 V, 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. 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_{in} vs U_{out} or mA_{in} vs mA_{out}

Wiring:

Bottom connector

1	G	24 Vac/dc, supply
2	Go	0 V, supply
3	0_{in}	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	0_{out}	0 V, output
9	U_{out}	Voltage signal output
10	I_{out}	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).