

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 so-called ground loop effect, which may interfere with the signal transferring or measurement of the transmitter. The ground loop effect is not created when between different points of the grounded devices the ISO 10 module is used.

ISO 10 module can be configured to convert various types of signals by coding switches without opening the casing. Factory setting is 0...10 V in and 0...10 V and 0...20 mA out.

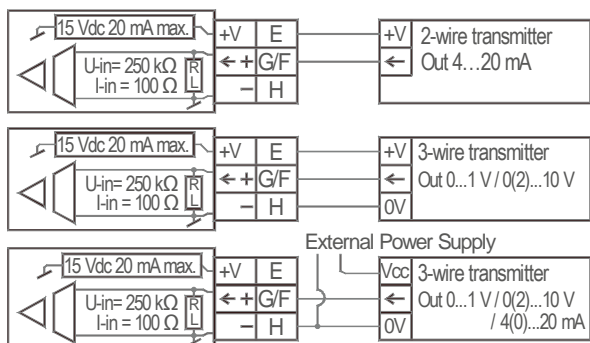
Input and output signal range selection:

Input	U-out	I-out	sw 1	sw 2	sw 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

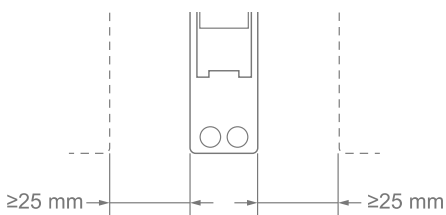
* factory setting



Wiring of different transmitter types:



Protective distances:



Technical data:

Supply	24 Vac/dc
Power consumption	< 2 VA
Isolation voltage	< 500 Vdc
Input impedance	10 V range 250 k Ω (I in \leq 50 μ A) 20 mA range 100 Ω
Output	10 V range max. 2mA 20 mA range loop resistance max.500 Ω
Deviation	< 0,35 % FSO (25 $^{\circ}$ C)
Temperature drift	< 0,003 %/ $^{\circ}$ C
Response time	about 1 s
Ambient temperature	-20...50 $^{\circ}$ C
Dimensions (w x h x d)	13 x 90 x 115 mm

Wiring:

(+)	I	24 Vac/dc (+) supply
(-)	L	24 Vac/dc (0 V)
(+V)	E	15 Vdc, 20 mA, 2-wire transmitter
(+)	G/F	input 0...1 V or 0(2)...10 V or 4...20 mA
(-)	H	input (0 V)
(+)	N	output U-out
(-)	M	output 0 V
(+)	P	output I-out
(-)	O	output 0 V

Ordering guide:

Model	Product number	Description
ISO 10	1182060	isolator / converter

Products fulfil the requirements of directive 2004/108/EC and are in accordance with the standards EN61000-6-3: 2001 (Emission) and EN61000-6-2: 2001 (Immunity).