

ISOL400 ISOL400HART

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Isolating converter (repeater)

Isolating converter for signal 0/4..20mA with bidirectional transmission of FSK signals HART

- isolation and analog transmission 0/4..20mA to 0/4..20mA 1:1
- power supply 18VDC for loop powered transmitter on input
- input-output-power supply isolation: 4000Vrms
- auxiliary power supply in wide range 19 to 300VDC and 90 to 250VAC
- DIN 35 rail-mounted design
- conversion accuracy: < 0,1%
- time response: 1ms without transmission delay (10ms with HART transmission)
- bidirectional transmission of FSK signals according HART protocol communication (only ISOL400HART)

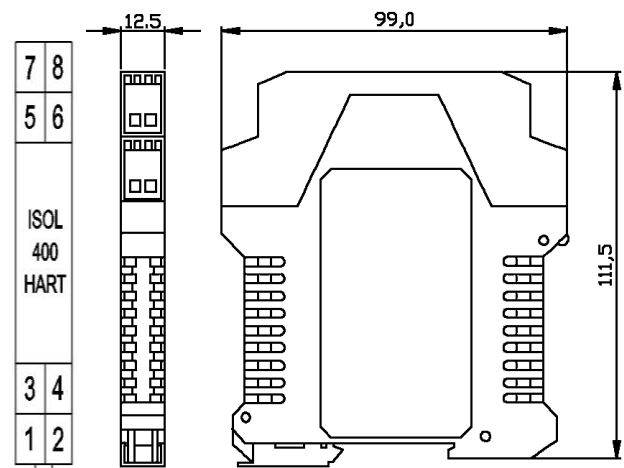
The module is designed to isolate and repeat current loop 0/4..20mA. The module also provides a 18V power supply for powering the input current loop 4-20mA. Typically, the module can be used as a supply for power and isolation for converter powered by current loop. The output of the converter is isolated from the input and the auxiliary power supply. Parallel channel provides bidirectional transmission FSK signal HART communication.

Elektrical specifications:

- | | |
|--|---|
| - operating temperature range: | -25...+ 70°C |
| - storage temperature range: | -40...+ 80°C |
| - auxiliary power supply | standard: wide range 19 – 300VDC a 90 – 250 VAC |
| | to order: 20 – 60VAC |
| - power consumption: | max. 1,5VA |
| - power supply for two-wire converter: | 18V for 20mA |
| - input range: | 0/4..20mA ISOL400 |
| | 4..20mA ISOL400HART |
| - output range: | 0/4..20mA ISOL400 |
| | 4..20mA ISOL400HART |
| - output voltage amplitude: | 15V (Rz < 750 ohm) |
| - drop in current input: | 0,54V (2,1V with HART transmission) |
| - output current limit: | typ. 25mA (electronic cut-out) |
| - transfer function maximum error: | < 0,1% |
| - linearity error: | < 0,05% |
| - temperature induced error: | < 50ppm /°C |
| - output signal ripple: | < 10mV RMS |
| - input to output capacity: | 20pf |
| - time response: | typ. 1ms (10ms with HART transmission) |
| - enclosure | casing / terminal board:
IP40 / IP10 |
| - weight: | 90g |
| - environment: | pollution degree 2
overvoltage category installation III |



Dimensional drawing:



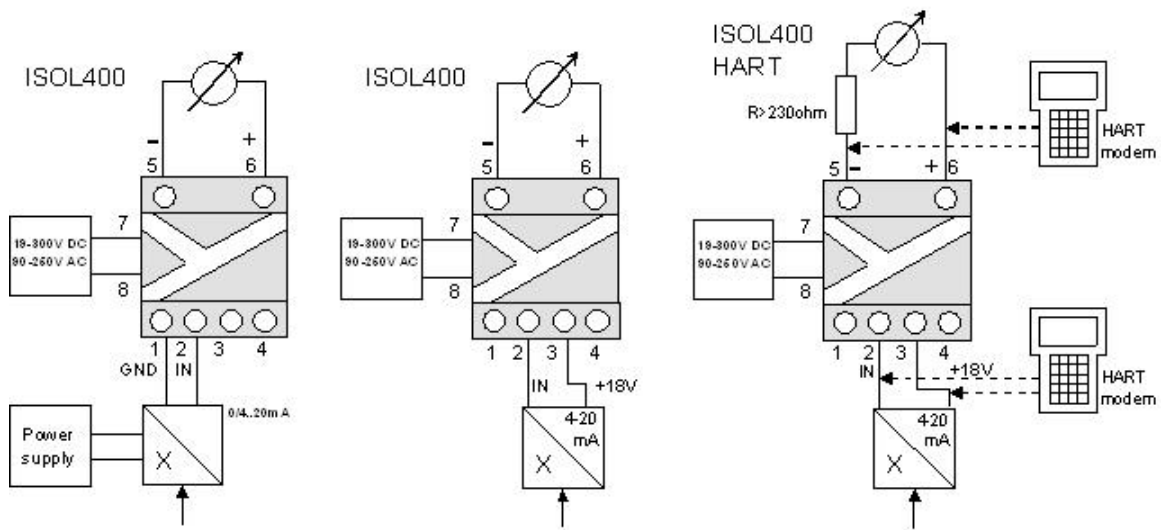
Type test:

- Standard type test: to ČSN EN 60770-1ed.2
EMC: to ČSN EN 61326-1
Safety: assessed acc. to ČSN EN61010-1

Terminals connection:

- 1...GND minus pole for input and 18V power supply
- 2...plus pole for input signal
- 3...plus pole for 18V power supply
- 4
- 5,6..output (6 is +)
- 7,8..auxiliary power supply without polarity

Examples of using the module:



Ordering instructions:

Your order should include:

- module type ISOL400
- requirement HART communication (only 4..20/4..20mA transmission)
- number of peaces

Ordering examples:

- ISOL400HART = range 4..20/4..20mA with HART transmission
 ISOL400 = range 0/4..20//0/4..20mA without HART transmission

Installation:

The terminals accept wires up to 2.5 mm². We recommend using a cable with a cross section of 0.5mm². Mechanically, the transducers are mounted on 35 mm DIN rail. After hanging to the rail has to be the bottom of the unit pushed to the rail. The latch on the bottom of the unit snaps it to the rail.

Demounting is done with a screwdriver. After releasing the latch you can removed unit from the rail.

Replacing the converter:

The converter allows a very simple device replacement without removing the wires. Push by screwdriver under the original clips see figure 1 and 2, replace the unit and slide the clamps back.

Fig.1



Fig.2



Likvidaci po ukončení životnosti provést odděleným sběrem.
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rev.5