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Passive DC signal isolator with HART transmission

- test voltage 4000V input – output
- single-channel or two-channel type
- power transfer to supply a two-wire converter
- low voltage drop in the module, typ. 2,7V
- bidirectional transmission of FSK signal HART communication
- mounting 35mm DIN rail
- transfer accuracy < 0,1%

The module provides galvanic separation of standard current signals 0-20mA, 4-20mA. The power for supplying the module is obtained from the input measuring signal. The module can be used to isolate a two-wire transmitter supplied by a 4-20mA signal. Galvanic separation is achieved by means of a transformer. The input DC signal is modulated to an AC signal which, after being transferred by the transformer, is demodulated back to a DC signal. The input circuit is protected against RFI/EMF and against incorrect polarity. In principle it is a precise DC transformer. Therefore is necessary closed secondary circuit for primary current passing. Parallel channel provides bi-directional communication according to the HART protocol.



Specifications:

- operating temperature range:	-25...+ 70°C
- storage temperature range:	-40...+ 80°C
- power supply voltage limit:	2,5 to 30V
- input signal:	0/4-20mA
- transformer ratio:	1:1
- max. transformation error:	< 0,1% (load 250ohm)
- temperature coefficient:	< 20ppm/°C
- load error:	< 0,02% for 100 ohm
- start current	< 30uA
- test voltage input - output:	1500Vef basic insulation
- time constant:	c. 5ms for load 250 ohm
- weight:	80g(single), 120 g(dual)
- ambient	standard for pollution index 2 wiring overvoltage category III

Type tests:

Basic type test	- in compliance with ČSN EN 60770-1
EMC:	- in compliance with ČSN EN 61326-1
Safety:	- in compliance with ČSN EN 61010-1

Installation:

The terminals accept wires up to 2.5 mm². We recommend wires 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.

Ordering instructions:

Your purchase order should include the following:

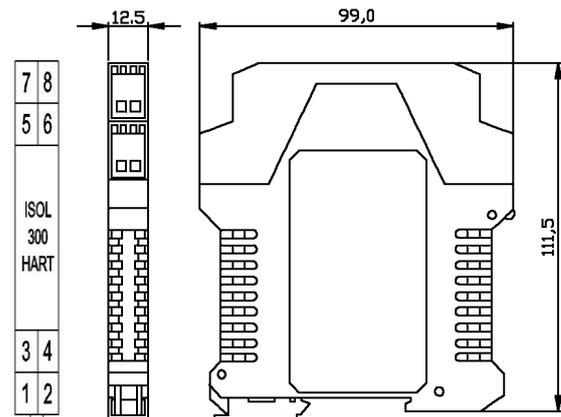
- converter type (after slash number of channel)
- requirement HART transmission
- quantity (number of pieces)

Ordering example:

- ISOL300/2HART two-channel module with HART transmission
- ISOL300/1 single-channel module without HART transmission



Dimension chart:



Terminal connections:

	channel A	channel B
input	1, 2 (2 is +)	3, 4 (4 is +)
output	7, 8 (8 is +)	5, 6 (6 is +)

Possible applications of the insulating module:

