

Input module for differential pressure transmitter with Modbus interface (-IN)



Summary of devices that support the input module

Type name* (-IN for Input module) (-AZ for autozero)	Accuracy for pressure -10...+50°C**	Long term stability typical 1 year
DPT-MOD-2000-IN (-AZ)	±1,5% or (±6Pa <250 Pa) from range	≤ ± 8 Pa (with AZ ≤ ± 1 Pa)
DPT-MOD-5000-IN (-AZ)	±1,5% from range	≤ ± 24 Pa (with AZ ≤ ± 1 Pa)

*For the technical details of the differential pressure transmitter with Modbus interface, please see the relevant datasheet.

**Each device is individually temperature compensated.

Input module:

Input module is fixed assembled expansion board for external signal conversion into modbus.

The input module is a plug-in module that can be assembled into DPT-MOD afterwards, even in the field and on site.

The input module is compatible with DPT-MOD version REV05 or later

Technical data

Communication

MODBUS RTU, over RS485
8 data bits, none parity, 1 stop bit, baud rate: selectable

Electrical terminals

3 x Screw terminal for wires max 1.5mm²

Number of input terminals

2 (both terminals can be used simultaneously and/or separately)

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Input signals can be read over MODBUS via DPT MOD RS484 interface.

Input	Signals	Accuracy for measurement	Resolution (Modbus signal)
Input 1 and 2	0...10V	<0,5 %	0,1 %
	ntc10k	<0,5 %	0,1 %
	Pt1000	<0,5 %	0,1 %
	Ni1000/(-LG)	<0,5 %	0,1 %
	BIN IN (potential free contact)		

Electrical terminals

3 x Screw terminal for wires
 Push button
 Cable entry

max 1.5mm²
 for pressure zero point calibration
 M20

Modbus functions and registers

FUNCTION 02 – Read Input status

Register	Parameter Description	Data type	Value	Range
1x0001	Input 1 BIN IN	Bit 0	0...1	On – Off
1x0002	Input 2 BIN IN	Bit 0	0...1	On – Off

FUNCTION 04 – Read input Register

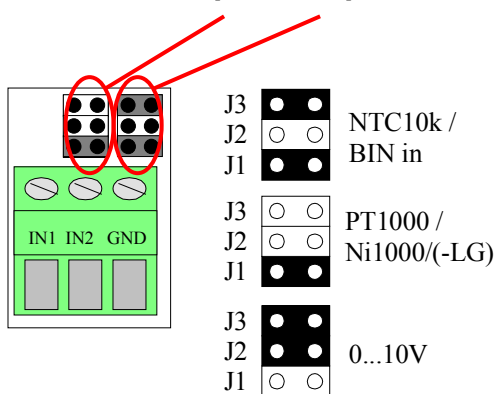
Register	Parameter Description	Data type	Value	Range
3x0004	Input 1 0...10V	16 bit	0...100	0...100(%)
3x0005	Input 1 Pt1000 temperature	16 bit	-500...500	-50...+50C
3x0006	Input 1 Ni1000	16 bit	-500...500	-50...+50C
3x0007	Input 1 NTC10k	16 bit	-500...500	-50...+50C
3x0008	Input 2 0...10V	16 bit	0...100	0...100(%)
3x0009	Input 2 Pt1000 temperature	16 bit	-500...500	-50...+50C
3x0010	Input 2 Ni1000	16 bit	-500...500	-50...+50C
3x0011	Input 2 NTC10k	16 bit	-500...500	-50...+50C
3x0012	Input 1 Ni1000-LG	16-bit	-500...500	-50...+50C
3x0013	Input 2 Ni1000-LG	16-bit	-500...500	-50...+50C

Configuration

The jumpers should be set according to the instructions below and the value should be read from the right register. Both inputs can be configured independently.

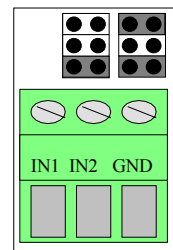
Jumpers

Input 1 / Input 2



Example:

Pt1000 is connected to Input 1
Ntc10k is connected to input 2



Input 1 Pt1000 temperature:

FUNCTION 04 – Read input Register
3x0005

Input 2 ntc10k temperature:

FUNCTION 04 – Read input Register
3x0011

