DIFFERENTIAL PRESSURE TRANSMITTERS
DPT-Dual-MOD Series

Differential pressure transmitter with two pressure sensors for air and an Input terminal for two analog inputs for external signal conversion into Modbus

5 YEAR WARRANTY

DPT-Dual-MOD combines two differential pressure transmitters into one device. It offers a possibility to measure pressure from two different points. It has a Modbus interface and an Input terminal. When using the Input terminal, temperature transmitters can be replaced with temperature sensors. As a result you will save in costs of the devices and in the installation costs. The AHU model that includes an air flow transmitter has been designed especially for ventilation units.

SIMILAR PRODUCTS

- DPT-2W series differential pressure transmitters with 4–20 mA 2-wire configuration
- DPT-R8 series 8-range differential pressure transmitters
- DPI series electronic differential pressure switches
- PS series mechanical differential pressure switches
- DPT-FLOW series airflow transmitters

APPLICATIONS

DPT-Dual-MOD series devices are commonly used in HVAC/R systems for:

- fan, blower and filter monitoring
- pressure and flow monitoring
- valve and damper control
- pressure monitoring in cleanrooms

DPT-Dual-MOD-AHU can also be used for:

- air flow monitoring across centrifugal fans and blowers
- in-duct air flow monitoring
- VAV applications

MODEL SUMMARY

	DPT-Dual-MOD-2500		**DPT-Dual-MOD-7000**		**DPT-Dual-MOD-AHU**	
Measurement ranges (Pa)	-250...2500		-250...7000		-250...2500 and -250...7000	
Description	**Model**	**Product code**	**Model**	**Product code**	**Model**	**Product code**
Differential pressure transmitter with two pressure sensors, Modbus configuration and display	DPT-Dual-MOD-2500-D	120.007.006	DPT-Dual-MOD-7000-D	120.016.006		
Differential pressure transmitter with two pressure sensors, flow measurement, Modbus configuration and display					DPT-Dual-MOD-AHU-D	120.016.013

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DIFFERENTIAL PRESSURE TRANSMITTERS
DPT-Dual-MOD Series

Differential pressure transmitter with two pressure sensors and Modbus configuration

SPECIFICATIONS

Performance

Accuracy (from applied pressure):
Model 2500:
Pressure < 125 Pa = 1 % + ±2 Pa
Pressure > 125 Pa = 1 % + ±1 Pa
Model 7000:
Pressure < 125 Pa = 1.5 % + ±2 Pa
Pressure > 125 Pa = 1.5 % + ±1 Pa
(Including: general accuracy, temperature drift, linearity, hysteresis, long term stability and repetition error)
Response time:
1...20 s selectable via menu
Overpressure:
Proof pressure: 25 kPa
Burst pressure: 30 kPa

Communication

Protocol: MODBUS over Serial Line
Transmission Mode: RTU
Interface: RS485
Byte format (11 bits) in RTU mode:
Coding System: 8-bit binary
Bits per Byte:
1 start bit
8 data bits, least significant bit sent first
1 bit for parity
1 stop bit
Baud rate: selectable in configuration
Modbus address: 1–247 addresses selectable in configuration menu

Zero point calibration options:
- Manual pushbutton autozero
- Via Modbus write coil

Technical Specifications

Media compatibility:
Dry air or non-aggressive gases
Measuring units on display (Selectable via menu):
Pressure: Pa, kPa, mbar, inchWC, mmWC, psi
Flow (AHU model): m^3/s, m^3/hr, cfm, l/s, m/s, ft/min
Measuring element:
MEMS
Environment:
Operating temperature: -10...+50 °C
Storage temperature: -20...+70 °C
Humidity: 0 to 95 % rH

Physical

Dimensions:
Case: 102.0 x 71.5 x 36.0 mm
Weight:
150 g, with accessories 290 g
Mounting:
2 each 4.3 mm screw holes, one slotted
Materials:
Case: ABS
Lid: PC
Pressure inlets: Brass
Duct connectors: ABS
Tubing: PVC
Protection standard:
IP54
Display:
2-line display (12 characters/line)
Line 1: active measurement, inlet A
Line 2: active measurement, inlet B
If inputs are selected, the lines show also input information (for example temperature)

Electrical Connections:
4+4 spring load terminals, max 1.5 mm^2
Cable Entry: M20
Pressure connections:
Male ⦰ 5,0 mm and 6,3 mm

Electrical

Supply voltage:
24 VAC or VDC ± 10 %
Power consumption:
< 1.3 W
Output signal:
via Modbus

Conformance

Meets requirements for CE marking:
EMC directive 2014/30/EU
RoHS Directive 2011/65/EU
WEEE Directive 2012/19/EU

COMPANY WITH MANAGEMENT SYSTEM CERTIFIED BY DNV GL
= ISO 9001 = ISO 14001 =

How to generate a model?

Example:	**Product Series**			
DPT-Dual-MOD-2500-D	DPT-Dual-MOD	Differential pressure transmitter with two pressure sensors and Modbus configuration		
		Highest available measurement range		
		-2500	-250...2500 Pa	
		-7000	-250...7000 Pa	
		-AHU	both 2500 and 7000 sensors, with flow measurement	
			Display	
			-D	With display
Model	DPT-Dual-MOD	-2500	-D	