

DIFFERENTIAL PRESSURE TRANSMITTERS DPT-Dual Series

Field adjustable, multi-range differential pressure transmitter with two pressure sensors for air

DPT-Dual series differential pressure transmitters are engineered for building automation in the HVAC/R industry. The most technologically advanced transmitters on the market, measuring static and differential pressure from two different points, with field selectable units, range and output, all in a single device.

DPT-Dual series devices include:

- Multiple measurement units, field selectable via jumper, including: Pa, mbar, inchWC, mmWC, psi.
- 8 field selectable measurement ranges, unidirectional or bi-directional, selectable via jumper, (see Model Summary).
- Proportional output options including: voltage (0-5/10 V), selectable via jumper.

DPT-Dual series device options offer:

Backlit display



SIMILAR PRODUCTS

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

APPLICATIONS

DPT-Dual 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

MODEL SUMMARY

Measurement ranges (Pa)	DPT-Dual-2500	DPT-Dual-7000
(field selectable via jumper)	±100, 100, 250, 500 Pa	1000, 1500, 2000, 2500 Pa
(For optional units, see Specifications)	1000, 1500, 2000, 2500 Pa	3000, 4000, 5000, 7000 Pa
Description	Model	Model
Multi-range differential pressure transmitter with two pressure sensors	DPT-Dual-2500	DPT-Dual-7000
- with display	DPT-Dual-2500-D	DPT-Dual-7000-D

Copyright HK Instruments 2014 www.hkinstruments.fi Datasheet Version 2.0 2014

DIFFERENTIAL PRESSURE TRANSMITTERS DPT-Dual Series

Differential pressure transmitter with two pressure sensors

SPECIFICATIONS

Performance

Accuracy (from applied pressure):

±1.5 % + 1 Pa

(including: general accuracy, temperature drift, linearity, hysteresis, long term stability, and repetition error)

Thermal effects:

Temperature compensated across the full spectrum of capability

Overpressure:

Proof pressure: 25 kPa Burst pressure: 30 kPa **Zero point calibration:**

Automatic autozero or manual pushbutton

Response time:

4.0 s or 0.8 s, selectable via jumper

Technical Specifications

Media compatibility:

Dry air or non-aggressive gases

Measuring units:

Pa, mbar, inchWC, mmWC, psi, selectable via jumper

Measuring element:

Piezoresistive

Environment:

Operating temperature: -10...50 °C Storage temperature: -20...70 °C Humidity: 0 to 95 % rH, non condensing

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 (Optional)

2-line display (12 characters/line) Line 1: active measurement, inlet A Line 2: active measurement, inlet B

Electrical connections:

4 spring loades terminals, max 1.5 mm 2 Wire: 12–24 AWG (0.2–1.5 mm $^2)$

Cable entry: M20 Pressure fittings:

Male Ø 5.0 mm and 6.3 mm

Electrical

Voltage:

Circuit: 3-wire (V Out, 24 V, GND) Input: 24 VAC or VDC, ±10 % Output: 0-5/10V

Power consumption: <1.0 W Resistance minimum: 1 $k\Omega$

Conformance

Meets requirements for CE marking: EMC directive 2004/108/EC RoHS Directive 2002/95/EC



How to generate a model?

Example:	Product Series				
DPT-Dual-2500-D	DPT-Dual	Differential pressure transmitter with two pressure sensors			
		Highest available measurement range			
		-2500	02500 Pa		
		-7000 07000 Pa			
			Display		
			-D	With display	
				Without display	
Model	DPT-Dual	-2500	-D		