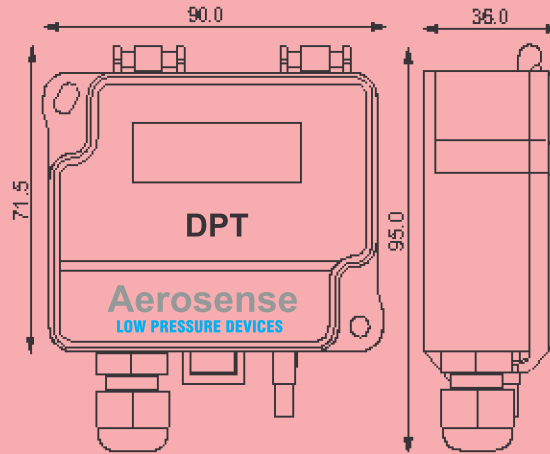


AEROSENSE DIFFERENTIAL PRESSURE TRANSMITTER



The Series DPT-R8-3W Differential Pressure Transmitter are engineered for building automation in HVAC/R industry. The most technological advanced transmitters on market, measuring static and differential pressure, with field selectable units, range and output, all in one device.

FEATURES

- Eight field selectable ranges and selectable output makes them ideal for all your BAS application and reduces inventory.
- Optional AZ (auto-zero) function for automatic zero point calibration, eliminating the need for periodic manual auto-zeroing to ensure long term accuracy.

APPLICATIONS

- Fan, blower and filter monitoring
- Valve and damper control
- Pressure monitoring in cleanrooms

SPECIFICATIONS

Service: Air or non-aggressive gas

Measuring element: MEMS, no flow through

Measuring units: Pa, kPa, mbar, inWC, mmWC, psi selectable via jumper (PSI range is not available in DPTC models)

Accuracy: $\pm 1\%$ FS

Storage Temperature: $-20...+70^{\circ}\text{C}$

Operating Temperature: $-10...+50^{\circ}\text{C}$ ($-5...+50^{\circ}\text{C}$ for – AZ model)

Ambient Humidity: 0 to 95% RH

Pressure limits: 25 kPa max, 30 kPa burst

Power requirements: 24 VAC/24 VDC, $\pm 10\%$

Output signal:

-DPT-R8: 4-20mA/0-10 VDC, 3 wire

-DPT-R8: 4-20mA/0-10 VDC (2-10 VDC selectable via jumper), 3 wire

Power consumption: $< 1.0\text{ W}$, Voltage: $< 1.2\text{ W}$

Loop resistance: current output: 500Ω Maximum

Voltage output: 1 k Ω minimum load

Electrical connection: 0-10V/0-5V/2-10V

Cable Entry: M16

Display (optional): 2-Line display (12 characters/line)

Line 1: active measurements **Line 2:** Units

Zero Point Calibration: automatic auto zero or push button

Response Time: 0.8s or 8.0s selectable via jumper

Process connection: Male 5,0 mm and 6,3 mm

Protection: IP54 **Material:** Case: ABS, Lid: PC

Conformance: Meets the requirement for CE marking:

-EMS Directive 2014/30/EU RoHS -Directive 2011/65/EU

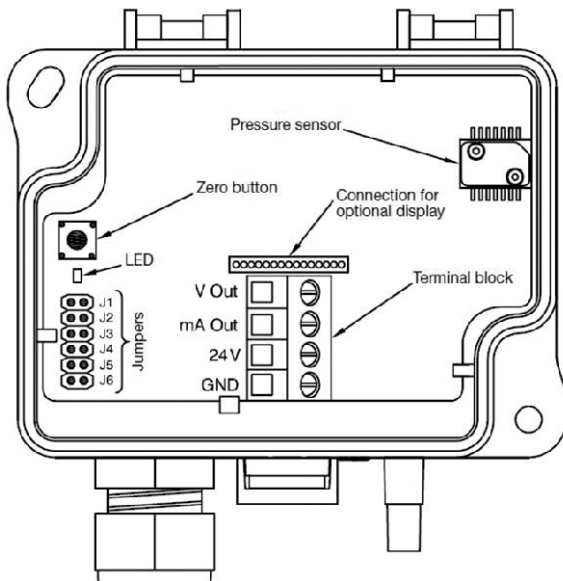
Model Chart	Model DPT250-R8-3W	Model DPT2500-R8-3W	Model DPT7000-R8-3W	Model DPTC500-R8-3W	Model DPTC2500-R8-3W	Model DPTC7500-R8-3W
Range 1	0-25 PA	100-0-100 PA	0-1000 PA	25-0-25 PA	125-0-125 PA	1250-0-1250 PA
Range 2	0-50 PA	0-100 PA	0-1500 PA	62-0-62 PA	622-0-622 PA	2500-0-2500 PA
Range 3	0-100 PA	0-250 PA	0-2000 PA	125-0-125 PA	1250-0-1250 PA	3750-0-3750 PA
Range 4	0-250 PA	0-500 PA	0-2500 PA	250-0-250 PA	0-125 PA	0-2500 PA
Range 5	25-0-25 PA	0-1000 PA	0-3000 PA	0-25 PA	0-250 PA	0-3750 PA
Range 6	50-0-50 PA	0-1500 PA	0-4000 PA	0-62 PA	0-622 PA	0-5000 PA
Range 7	100-0-100 PA	0-2000 PA	0-5000 PA	0-125 PA	0-1250 PA	0-6250 PA
Range 8	150-0-150 PA	0-2500 PA	0-7000 PA	0-250 PA	0-2500 PA	0-7500 PA

Add - **D** to end of Model with Display For e.g. DPT250-R8-3W-D

Add - **AZ** to end of Models with Auto-Zero Calibration For e.g. DPT250-R8-3W-AZ

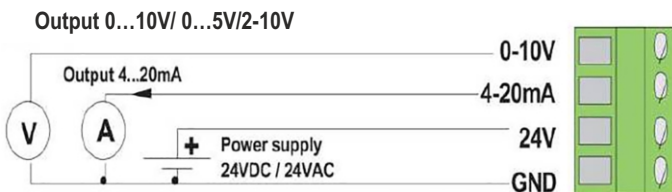
Add - **AZ - D** to end of Models with Display and Auto-Zero Calibration For e.g. DPT250-R8-3W-AZ-D

INSTALLATION

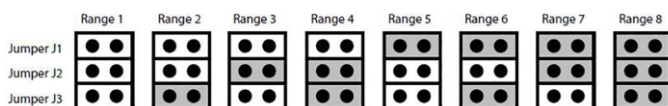


Electrical Connection:

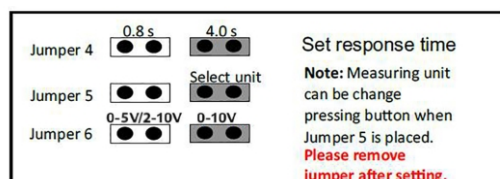
0-10V/0-5V/2-10V Output 0...10 V/ 0...5 V/2....10V
 4-20mA Output 4...20 mA
 24V Supply 24 VAC or VDC
 GND Ground



JUMPER SETTINGS



(Gray color indicates that a jumper is installed and Schematics for jumper installation.)



Optional auto zero element

AZ-calibration is a function in the form of an automatic zeroing circuit built into the PCB. The AZ-calibration electronically adjusts the transmitter zero at predetermined time intervals (every 10 minutes). The AZ-calibration eliminates all output signal drift due to thermal, electronic or mechanical effects, as well as the need for technicians to remove high and low pressure tubes when performing initial or periodic transmitter zero point calibration.

The AZ adjustment takes 4 seconds. To avoid conflict with the BAS system, the output and display values will freeze to the latest measured value, after which the device returns to its normal measuring mode. Transmitters equipped with the AZ-calibration are virtually maintenance free.

Zero-point adjustment

Note! Supply voltage must be connected one hour before the 0-point adjustment is carried out.

- 1) Loose both tubes from the pressure inlets + and –
- 2) Push zero button until the red led turns ON.
- 3) Wait until LED turns off and then install tubes again to the pressure inlets.

It is recommended to adjust the zero point every 12 months during normal operation.

* If the transmitter is equipped with automatic zero element the manual push button adjustment is not required.

ZEROING: Press the button



LED: Turns RED
Zeroing

! Note! If wires are already powered, connect 24V and GND before connecting outputs!