

DIFFERENTIAL PRESSURE TRANSMITTER

DPT- 3WIRE



Model summary

Each device has 8 jumper selectable measuring ranges. Each device is temperature compensated.

Model: DPT250 - R8 (-AZ -D -Q -S)
 DPT2500 - R8 (-AZ -D -Q)
 DPT7000 - R8 (-AZ -D -Q)

- R8 for 8 measuring range
- D for display
- Q for square root output (output is flow linear instead of pressure linear)
- AZ for Autozero element
- S with span point calibration

Model 250	Model 2500	Model 7000
0...25 Pa	-100...+100 Pa	0...1000 Pa
0...50 Pa	0...100 Pa	0...1500 Pa
0...100 Pa	0...250 Pa	0...2000 Pa
0...250 Pa	0...500 Pa	0...2500 Pa
-25...+25 Pa	0...1000 Pa	0...3000 Pa
-50...+50 Pa	0...1500 Pa	0...4000 Pa
-100...+100 Pa	0...2000 Pa	0...5000 Pa
-150...+150 Pa	0...2500 Pa	0...7000 Pa

The Differential Pressure Transmitter is delivered individually packed with standard accessories (see accessories).

Technical data

Response Time: 0.8 / 4 s selectable by jumper

Measuring unit: Selectable by jumper (Pa, kPa, mbar, inchWC, mmWC, psi)

Suitable media: Air and non-aggressive gases

Measuring element: Piezoresistive

Max pressure: 400 kPa

Accuracy from range: ±1,5% or (±6Pa <250 Pa) (including: general accuracy, temperature drift, linearity, hysteresis, long term stability and repetition error)

Electrical interface:

- Supply voltage: 24 VAC or VDC ± 10%

• Power consumption: < 1.0 W (<1.5W with lout 20mA)

Output signal:
 0...10 VDC, Load R minimum 1kΩ or 4...20 mA, maximum load 500Ω

Materials:

- Housing: ABS
- Cover: PC
- Pressure connections: ABS
- Duct connectors: ABS
- Tubing: PVC, soft

Connections:

- Electrical connections: 4 screw terminals, max 1.5 mm²
- Cable entry: M16

• Pressure connections: Male Ø 5,0 mm and 6,3 mm

Weight: 150 g, with accessories 290 g

Dimensions: 90,0 x 71,5 x 36,0 mm

General ambient condition:

- Temperature range:
 - Operation -10...+50°C (-5...+50°C for -AZ model)
- Storage: -20...+70°C
- Ambient humidity: 0 to 95% RH

Safety:

- Protection standard: IP54
- Conformance: Meets the requirements for CE marking:
 - EMC directive 2004/108/EY
 - Rohs Directive 2002/95/EY

Accessories

Standard accessories:

- 2 fixing screws
- 2 plastic duct connectors
- 2 m tube Ø 4 / 7 mm

Optional accessories:

- * Metallic duct connector

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.

Optional auto zero element *

Optional auto zero element makes the DPT transmitter maintenance free for periodical push button zeroing. Element automatically adjusts the transmitters zero point from time to time, this eliminates the zero point long term drift of the piezoresistive sensing element.

Zero point adjustment is carried out every 10 minutes. During zero point adjustment the output and display values will freeze to the latest measured value. The automatic zero point adjustment takes 4 seconds.

HK INSTRUMENTS

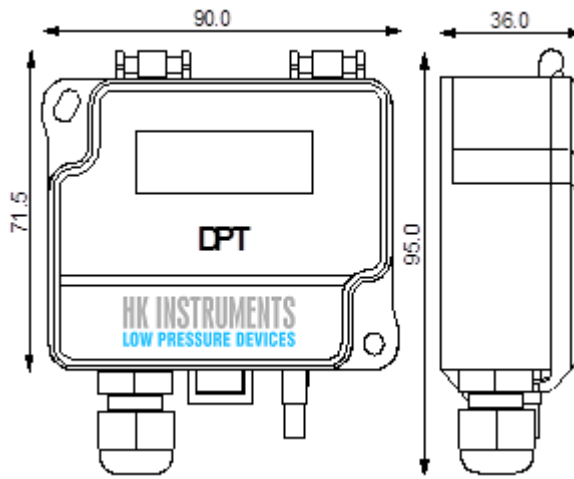
User-friendly measuring devices

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Dimensions

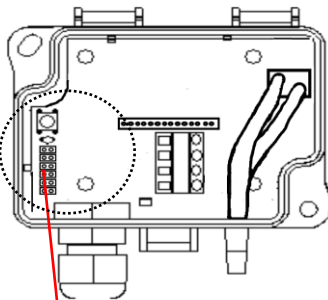


Installation

ZEROING: Press the button



LED: Turns ON
Zeroing



Model DPT250

	25Pa	50Pa	100Pa	250Pa
Jumper 1	●●	●●	●●	●●
Jumper 2	●●	●●	●●	●●
Jumper 3	●●	●●	●●	●●
	±25Pa	±50Pa	±100Pa	±150Pa
Jumper 1	●●	●●	●●	●●
Jumper 2	●●	●●	●●	●●
Jumper 3	●●	●●	●●	●●

Model DPT2500

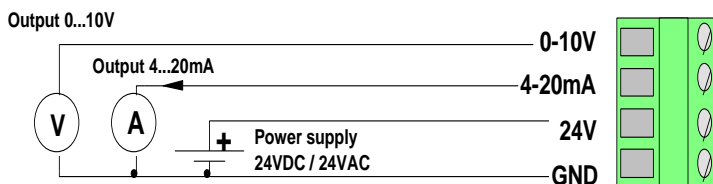
	±100Pa	100Pa	250Pa	500Pa
Jumper 1	●●	●●	●●	●●
Jumper 2	●●	●●	●●	●●
Jumper 3	●●	●●	●●	●●
	1000Pa	1500Pa	2000Pa	2500Pa
Jumper 1	●●	●●	●●	●●
Jumper 2	●●	●●	●●	●●
Jumper 3	●●	●●	●●	●●

Model DPT7000

	1000Pa	1500Pa	2000Pa	2500Pa
Jumper 1	●●	●●	●●	●●
Jumper 2	●●	●●	●●	●●
Jumper 3	●●	●●	●●	●●
	3000Pa	4000Pa	5000Pa	7000Pa
Jumper 1	●●	●●	●●	●●
Jumper 2	●●	●●	●●	●●
Jumper 3	●●	●●	●●	●●

Electrical Connection:

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



Jumper 4	0.8 s	4.0 s	Set response time Note: Measuring unit can change pressing button when Jumper 5 is placed. Please remove jumper after setting.
Jumper 5	Select unit		
Jumper 6	Not in use		

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