

DIFFERENTIAL PRESSURE TRANSMITTER DPT-SPAN



Model summary

The span point can be adjusted $\pm 5\%$ by the span trimmer.
This enables an end user to reach the best accuracy.



Each device has 2 jumper selectable measuring ranges. Each device is individually temperature compensated.

Type codes <i>- D for display - AZ for autozero element*</i>	Measuring range 1	Measuring range 2	Accuracy %/FS **) Within operation temp. -10...+50°C	Long term stability typical 1 year	
				-AZ	without -AZ
DPT Span ± 50 -AZ (-D)	-25...+25 Pa	-50...+50 Pa	$\pm 1,5\%$ ($\pm 3\%$ initial)	$\leq \pm 1$ Pa	-
DPT Span 100-AZ (-D)	0...50 Pa	0...100 Pa	$\pm 1,5\%$ ($\pm 3\%$ initial)	$\leq \pm 1$ Pa	-
DPT Span ± 100 -AZ (-D)	-50...+50 Pa	-100...+100 Pa	$\pm 0,7\%$ ($\pm 1,5\%$ initial)	$\leq \pm 1$ Pa	-
DPT Span 500 (-D -AZ)	0...250 Pa	0...500 Pa	$\pm 0,7\%$ ($\pm 1,5\%$ initial)	$\leq \pm 1$ Pa	$\leq \pm 8$ Pa

**) %/FS from highest pressure range (including: general accuracy, temperature drift, linearity, hysteresis and repetition error).

Initial value is the factory calibration value, the better value can be achieved by the field span point calibration.

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

HK INSTRUMENTS Ltd

Keihästie 7
FIN-40950 MUURAME
FINLAND

Tel. +358 14 337 2000
Fax. +358 14 337 2020
Email: info@hkinstruments.fi

www.hkinstruments.fi

Bank: Leonia 800019-01847385
Vat Reg: FI 08730729
Reg no: 404.989

Technical data

Response Time	0.8 / 4 s selectable by jumper	
Max. pressure	25 kPa	
Bursting pressure	50 kPa	
Suitable media	Air and non-aggressive gases	
Measuring element	Piezoresistive	
Electrical interface (3-wire)	Supply voltage	24 VAC or VDC
	Max. tolerance	± 10%
	Power consumption	< 1.0 W (<1.5W with Iout 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 mm ²
	Cable entry	M16x1,5, cable Ø 4...8 mm
	Pressure connections	Male Ø 5,0 mm and 6,3 mm
Weight	150 grams, with accessories 290 grams	
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/EEC RoHS Directive 2002/95/EEC

Accessories

Standard accessories:

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

Optional accessories:

- Metallic duct connectors

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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

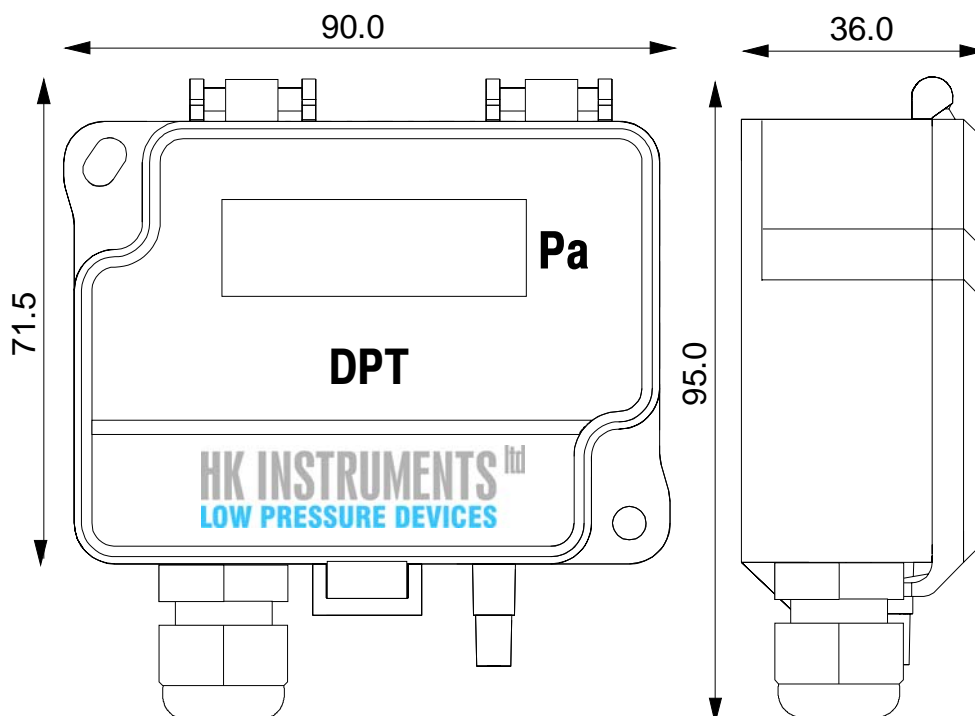
* If the transmitter is equipped with automatic zero element the manual push button adjustment is not required.

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.

Dimensions



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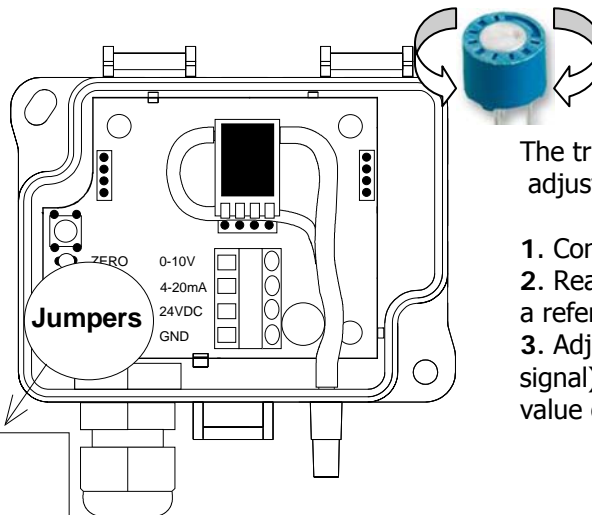
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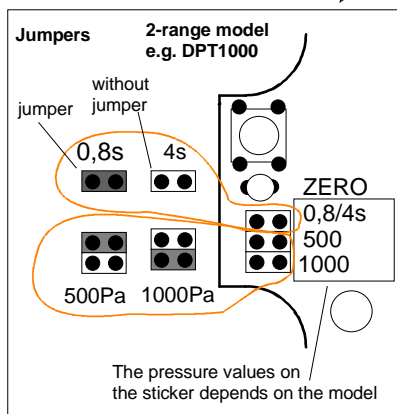
Installation

Push button for zero
Zero: Push button zero



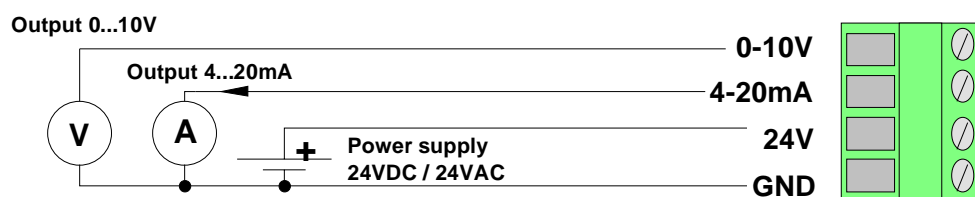
The trimmer for span point adjustment ±5%

1. Connect the input pressure
2. Read the actual pressure from a reference meter
3. Adjust the DPT display (or output signal) to showing the same as the value of reference meter



Electrical Connection:

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



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