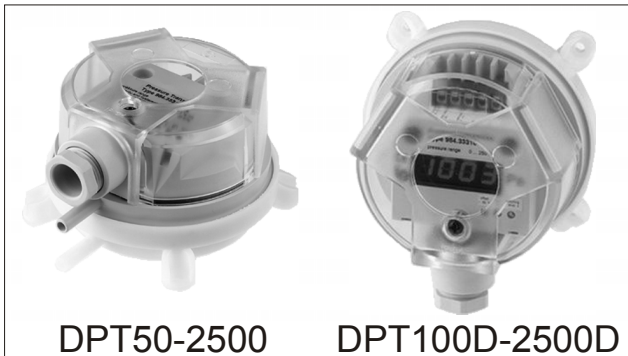


DPT50-2500/100D-2500D DIFFERENTIAL PRESSURE TRANSMITTERS

SPECIFICATION DATA & MOUNTING INSTRUCTIONS



DPT50-2500

DPT100D-2500D

GENERAL

The differential pressure transmitters of the DPT series are used for measuring differential pressure, positive pressure and vacuum. The transmitters are suitable for:

- air-conditioning,
- building automation,
- environmental protection,
- fan and blower control,
- valve and flap control,
- filter and blower monitoring,
- fluid and level monitoring, and
- control of air flows.

Models

order number	linearity range	overload capacity	bursting pressure
DPT50	$\pm 50 \text{ Pa}^1$	25 kPa	50 kPa
DPT110	$\pm 100 \text{ Pa}^1$	25 kPa	50 kPa
DPT100/DPT100D	$0 \dots 100 \text{ Pa}^1$	25 kPa	50 kPa
DPT250/250D	$0 \dots 250 \text{ Pa}^1$	25 kPa	50 kPa
DPT500/500D	$0 \dots 500 \text{ Pa}^1$	25 kPa	50 kPa
DPT1000/1000D	$0 \dots 1 \text{ kPa}^2$	25 kPa	50 kPa
DPT2500/2500D	$0 \dots 2.5 \text{ kPa}$	30 kPa	75 kPa
¹⁾ $\leq \pm 5\%$ of FS			
²⁾ $\leq \pm 2.5\%$ of FS			

FEATURES

- Monitoring gaseous, non-aggressive media
- Piezo-resistive pressure transducer
- Up to 30 kPa overload capacity
- Models with display (DPT100D-2500D)
- Robust design; protection class IP54
- Easy installation and wiring connection

SPECIFICATION

Supply voltage	18...24...30 Vac; 50/60 Hz or 16...24...32 Vdc
Output signal	0...10 Vdc
Pressure medium	Air and non-aggressive gases
Linearity and hysteresis error	$\leq \pm 1\%$ of FS
Temperature error at 0...50°C	$\leq \pm 1\%$ of FS ¹⁾ $\leq \pm 5\%$ of FS ²⁾ $\leq \pm 2.5\%$ of FS
Storage temperature	-10...+70 °C
Humidity	0...95 % rh, non-condensing
Long-term stability, typical	$\leq \pm 0.5\%$ of FS / year
Response time	10 ms
Process connection	6 mm hose pipe
Electrical connection	Screw terminal block for wire to 1.5 mm ²
Housing material	ABS and POM
Protection class	IP54
Protection standards	IEC 770, EN50081-2, EN50082-2
Weight	approx. 130 g

ACCESSORIES

DPSK *	Duct Kit, incl. 2 m of silicone hose and two joining pipes
DPSL	DPSJ with screws.* Mounting brackets L-shaped

* = included in delivery of single package

FUNCTION

The DPT50-2500/100D-2500D are used for measuring differential pressure. The piezo-resistive pressure transducer integrated in the differential pressure transmitter is designed so that the pressure to be measured is applied to a thin membrane made of monosilicon, thus deflecting it.

The semiconductor resistors on the membrane detect this mechanical deflection and generate an electrical output signal. The arrangement of the resistors simultaneously compensates for the temperature response. The signal of the pressure transducer is converted into the output signal by high-gain operation amplifiers.

The electrical output signal changes within the specified error limits in proportion to the applied pressure.

DIMENSIONS

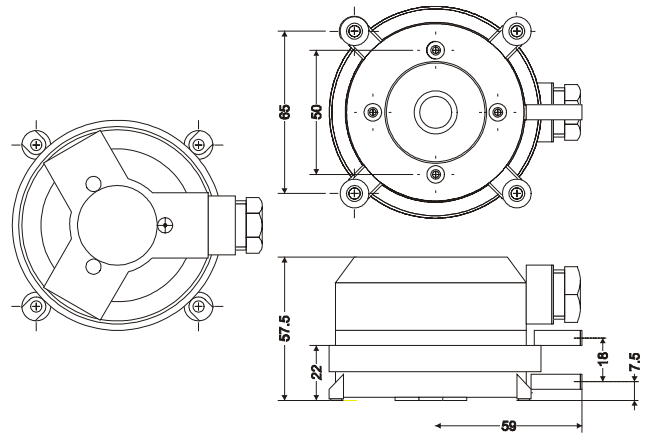
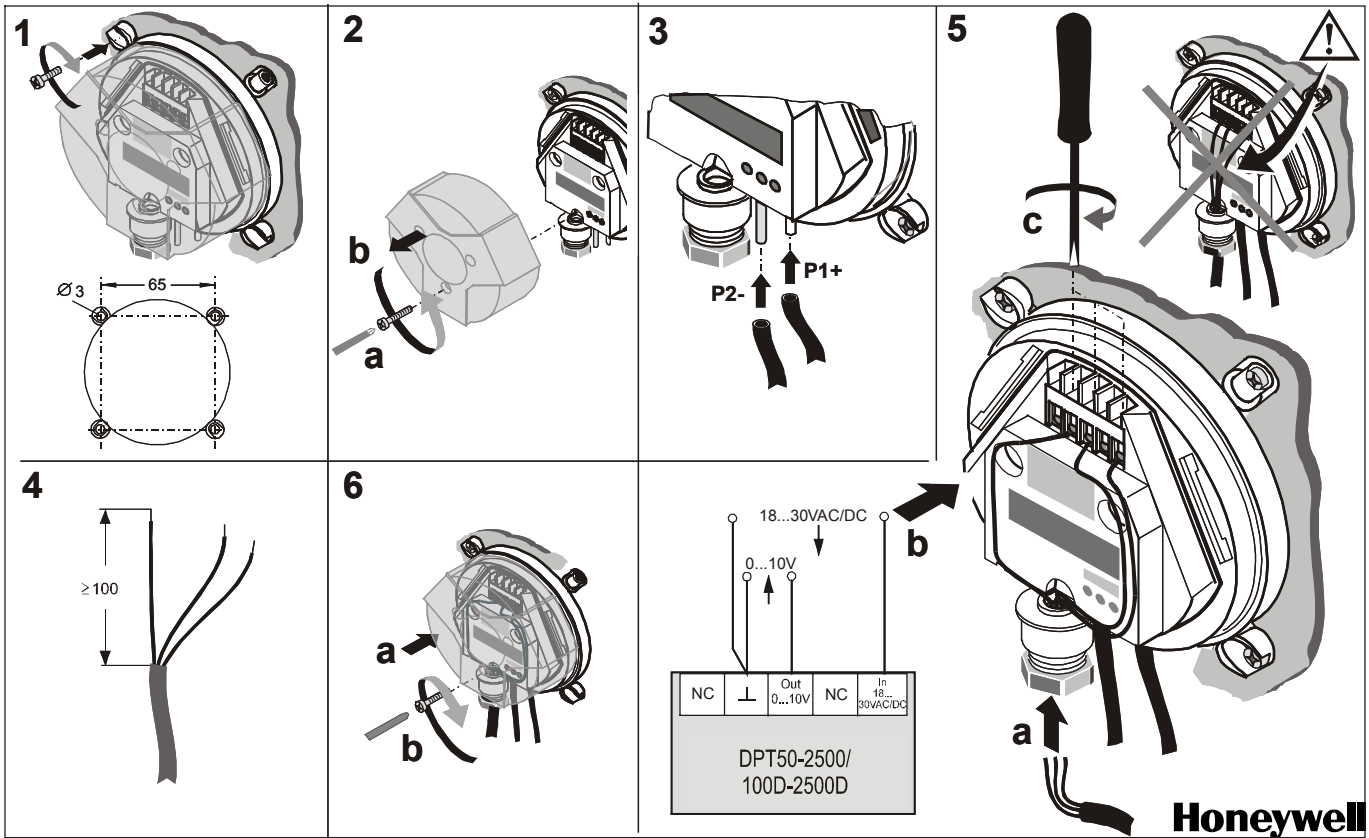


Fig. 1. Dimensions (in mm)

MOUNTING AND WIRING



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