

testo 6340

# **Differential Pressure Transmitter testo 6340**

Ideal for cleanroom applications





### Highest stability even at lowest pressures



## Whether cleanroom, grayroom, operating theatre or filling system:

Lowest differential pressures between the different rooms or zones must be sustained in order to avoid the in-flow of contaminated air.

Continuous measurement and control of these low differential pressures are required (according to ISO 14644: 5 to 20 Pa). This must be proven annually in accordance with **ISO 14644**-1/B (against zero potential and against neighbouring rooms).

#### Zero point stability plays a particularly important role at lowest pressures (10 Pa or 50 Pa measurement range).

While conventional  $\Delta P$  transmitters require frequent recalibration, the testo 6341/6343 is equipped with **automatic zero point adjustment**. The solenoid valves vent both sides of the pressure measurement cell in an hourly cycle. Consequently, the microprocessor automatically corrects the zero signal - highest stability is the result.





Defined pressure differences between cleanroom and adjoining rooms assure quality



Positive pressure at filling points helps to sustain hygiene conditions when filling food and pharmaceuticals



Negative pressure helps prevent the spread of germs and dust particles in hospitals and research laboratories, positive pressure secures operating theatres.

### testo 6340 - Product features



#### Patented inductive measurement cell

The patented differential pressure measurement cell in the testo 6340 transmitter operates with highest stability. A core, with a magnetic coating on both sides, is located in the middle of the concentrically undulating copper beryllium membrane. Any deflection causes sensitive changes in the inductances of both coils L1 and L2.

### The testo 6340 product line

testo 6341 and 6343 – The high end solution among the low  $\Delta P$  transmitters

- Zero point drift = 0 on account of automatic zeroing
- High long-term stability and reproducibility
- No temperature dependency: The automatic zeroing is performed at process temperature.
- Overload-proof (if \>140 % of the measurement range is applied, the solenoid valves close; the cell is vented on both sides)
- Optional display (testo 6343)

# testo 6342 and 6344 – the reliable transmitters among the low ${\scriptstyle \Delta P}$ transmitters

- Very low zero point drift as well as very good long-term stability and reproducibility thanks to the optimised measurement cell
- Very low temperature dependency (temperature compensated measurement cell)

testo 6349 - the variants of the above described types

• Optional display (testo 6344)



0 to 10 Pa, with automatic zero point adjustment, without display



0 to 10 Pa, with automatic zero point adjustment, with display



testo 6342: 0 to 50 Pa, without display



0 to 50 Pa, with display

Measurement ranges up to +/- 1000 mbar, other pressure and cable connections as well as (in testo 6341/43) a RS 232 digital output and a metallic housing are available based on the testo 6341 to 6344 instruments

### Technical Data - Ordering Data



testo 6342



testo 6344



testo 6341/6343



diameter, 1.5 mm wall thickness can withstand load up to 700 mbar

To the

(0554 0440)

DISPLAY AND SWITCH

testo 54 - 2 AC (5400.7553)

Technical data				
Madal	tosto 6241/6242	tasta 6242/6244		
Niudei				
Display	Unly with testo 6343	Unly with testo 6344		
Meas. range Meas. range on request	0 to 10 Pa (= 0,1 mbar/0,04 inch H <sub>2</sub> 0) 10 Pa to +/-100 kPa (i.e. up to 1000 mbar)	0 to 50 Pa (= 0,5 mbar/0,02 inch H <sub>2</sub> 0) 50 Pa to +/-100 kPa (i.e. 1000 mbar)		
Usable measurement range	-5% to +110 % of fsv	-5% to +105 % of fsv		
Measuring medium	Air, non-aggressive gases	Air, non-aggressive gases		
Housing (ABS plastic)	6341: 120 x 122 x 85 mm 6343: 120 x 122 x 105 mm	6342: 80 x 120 x 73 mm 6344:120 x 122 x 75 mm		
Overload	200 times (above 25 mbar: 6 bar)	10 times (above 200 mbar: 2 times)		
Measurement inaccuracy	0,35 Pa + 0,5% of mv (0.3 Pa = meas. inaccuracy of reference)	0,35 Pa + 0,6% of mv (0.3 Pa = meas. inaccuracy of reference)		
Zero point drift	None (automatic zero point adjustment)	0.5 % of full scale value/year		
Hysteresis	0,1% of fsv	0,1% of fsv		
Power supply	24 VDC (20,5 to 28,5 VDC)	24 VDC (20,5 to 28,5 VDC)		
Output signal	Linear to differential pressure	Linear to differential pressure		
Output signal	4 to 20 mA (load max. 500 0hm) 0 to 20 mA/0 to 10 V can be adjusted locally; RS232 on request	4 to 20 mA (load max. 500 0hm)		
Time constants	0/1/2.5/5/10/20/30/40 s can be adjusted	Can be set by factory if required		
Oper. temp.	0 to +60 °C	0 to +60 °C		
Storage temp.	-10 to +70 °C	-10 to +70 °C		
Protection class	IP54 standard (plastic housing) IP65 on request (metal housing)	IP54 Standard (plastic housing)		
Cable screw connections	2 x PG9	2 x PG7		
Pressure connections	2 x d 6.5 for houses ø 4 or 5 mm	2 x d 6.5 for houses ø 4 or 5 mm		
Weight	1500 g	6342: 300 g , 6344: 800 g		

Ordering data				
Item	Part no.			
testo 6341 $\Delta P$ transmitter 0 to 10 Pa, automatic zeroing, without display	0555 6341			
testo 6342 $\triangle P$ transmitter 0 to 50 Pa, without display	0555 6342			
testo 6343 $\Delta P$ transmitter 0 to 10 Pa, automatic zeroing, with display	0555 6343			
testo 6344 $\Delta P$ transmitter 0 to 50 Pa, with display	0555 6344			
ISO calibration with 5 points (0/25/50/75/100/0 % of full scale value)	0520 0005			
ISO calibration with 5 points (0/25/50/75/100/0 % of full scale value)	0520 0105			
5 metre silicone hose, 4 mm inner diameter, 1.5 mm wall thickness can withstand load up to 700 mbar	0554 0440			
External testo 54 – 2 AC display, 2 relay outputs (up to 300 VAC, 3 A), 230 VAC	5400 7553			
Power supply unit (desk-top) 90 to 264VAC/24VDC (350mA)	0554 1748			
Power supply unit (DIN rail mounting) 90 to 264VAC/24VDC (3A)	0554 1749			

To: