

# Differential pressure transmitter

testo 6321

Measurement of differential pressure in the measuring range from 100 Pa to 2 bar

Magnet valve for the automatic zero-point adjustment guarantees high temperature-independent accuracy and long-term stability

Adjustment and analysis via parameterization and adjustment software save time and costs in commissioning and maintenance

Available with and without display



A differential pressure transmitter with a good price/ performance ratio for applications in air conditioning and ventilation technology.

The testo 6321 is excellently suitable for the differential pressure-based monitoring of air filters, blowers and air flow, for a good climate with optimum energy efficiency.

The highly accurate and long-term stable testo 6321 provides the measurement values needed to monitor and regulate differential pressure safely and efficiently in air conditioning, ventilation and cleanroom technology.



### Technical data

#### **Measurement parameters**

Differential pressure		
Measuring range	0 to 100 Pa 0 to 10 hPa 0 to 20 hPa 0 to 50 hPa 0 to 100 hPa 0 to 500 hPa 0 to 1000 hPa 0 to 2000 hPa	-100 to 100 Pa -10 to 10 hPa -20 to 20 hPa -50 to 50 hPa -100 to 100 hPa -500 to 500 hPa -1000 to 1000 hPa -2000 to 2000 hPa
Measurement uncertainty*	±1.2% of measuring range final value ±0,3 Pa Temperature gain drift: 0.05% of measuring range per Kelvin deviation from nominal temperature 22 °C Zero-point drift: 0% (due to zero-point adjustment)	
Sensor	Piezoresistive sensor	
Autom. zero-point adjustment	via magnetic valve	
Overload capacity	Measuring range 0 to 100 Pa 0 to 10 hPa 0 to 20 hPa 0 to 50 hPa 0 to 500 hPa 0 to 500 hPa 0 to 500 hPa 0 to 1000 hPa -100 to 100 Pa -10 to 10 hPa -20 to 20 hPa -50 to 50 hPa -100 to 100 hPa -500 to 500 hPa -100 to 100 hPa -500 to 500 hPa -1000 to 1000 hPa -2000 to 2000 hPa	2500 hPa 2500 hPa

#### General

#### Housing

Material / colour	ABS / white (RAL 9010) or light grey	
Weight	Approx. 160 g	
Display	'	
Display	2-line LCD (optional)	
Resolution	Measuring range 0 to 100 Pa 0 to 100 Pa 0 to 20 hPa 0 to 50 hPa 0 to 500 hPa 0 to 500 hPa 0 to 1000hPa 0 to 2000hPa -100 to 100 Pa -10 to 10 hPa -20 to 20 hPa -50 to 50 hPa -50 to 50 hPa -100 to 100 hPa -500 to 500 hPa -1000 to 1000 hPa -2000 to 2000 hPa	Resolution 0.1 Pa 0.01 hPa 0.01 hPa 0.01 hPa 0.01 hPa 0.1 hPa 1 hPa 1 hPa 0.1 Pa 0.1 Pa 0.1 hPa 0.1 hPa 0.1 hPa 0.1 hPa 0.1 hPa 0.1 hPa 1 hPa 1 hPa 1 hPa 1 hPa 1 hPa
Miscellaneous		
Protection class	IP65 only when the transmitter is wired and/or sealing plugs are in use	
EMC	EC guideline: 2004/108/EC	
Automatic zero-point adjustment	Every 60 seconds ex-works	

#### Inputs and outputs

#### Analog outputs

Allalog outputs		
Output type	0 to 1/5/10 V (4-wire) 4 to 20 mA (4-wire)	
Measuring rate	1/s	
Resolution	12 bit	
Accuracy of the analog outputs	0 to 1 V ±2.5 mV 0 to 5 V ±12.5 mV 0 to 10 V ±25 mV 4 to 20 mA ±0.05 mA	
Max. load	500 Ω	
Further outputs		
other analog outputs	Mini DIN for P2A software (adjustment and parameterization software)	
Supply		
Voltage supply	20 to 30 V AC/DC	
Current consumption	300 mA	

#### **Operating conditions**

Temperature of medium	-5 to +50 °C
Humidity of medium	0 90 %RH
Operating temperature	-5 to +50 °C
Storage temperature	-20 to +60 °C

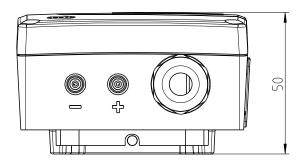
#### The determination of measurement uncertainty takes place according to GUM (Guide to the Expression of Uncertainty in Measurement):

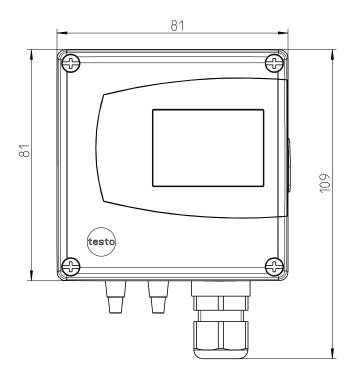
For the determination of measurement uncertainty, the accuracy of the measuring instrument (hysteresis, linearity, reproduceability), the uncertainty contribution of the test site as well as the uncertainty of the adjustment site (works calibration) are taken into account. For this purpose, the value of k=2 of the extension factor, which is usual in measurement technology is used as a basis, which corresponds to a trust level of 95%.



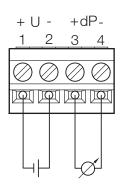
## Technical drawings / Connection plan

#### **Technical drawings**





#### **Connection plan**





## **Options / Ordering example**

#### The following options can be specified for the testo 6321

AXX Measuring range BXX Analog output/supply CXX Display

EXX Housing colour

FXX Unit

Delivery incl. wall holder

#### **AXX Measuring range**

A03 0 to 100 Pa A05 0 to 10 hPa A06 0 to 20 hPa A07 0 to 50 hPa A08 0 to 100 hPa A09 0 to 500 hPa A10 0 to 1000 hPa A11 0 to 2000 hPa A23 -100 to 100 Pa A25 -10 to 10 hPa A26 -20 to 20 hPa A27 -50 to 50 hPa A28 -100 to 100 hPa

A29 -500 to 500 hPa

A30 -1000 to 1000 hPa

A31 -2000 to 2000 hPa

#### **BXX Analog output / supply**

B02 0 to 1 V (4-wire, 24 VAC/DC) B03 0 to 5 V (4-wire, 24 VAC/DC) B04 0 to 10 V (4-wire, 24 VAC/DC) B06 4 to 20 mA (4-wire, 24 VAC/DC)

#### **CXX** Display

C00 without display C01 with display

#### **EXX Housing colour**

E01 Housing colour light grey, incl. Testo logo (coloured)

E02 Neutral housing, white, without Testo logo

E03 Neutral housing, white, incl. Testo logo (black/white)

#### **FXX Unit**

F01 Pa / min / max
F02 hPa / min / max
F03 kPa / min / max
F04 mbar / min / max
F05 bar / min / max
F06 mm H<sub>2</sub>O / min / max
F07 inch H<sub>2</sub>O / min / max
F08 inch HG / min / max
F09 kg/cm² / min / max
F10 PSI / min / max

#### **Ordering example**

Order code for testo 6321 transmitter with the following options:

- Measuring range 0 to 100 Pa
- Analog output 0 to 5 V
- Without display
- Housing colour light grey
- Unit Pa

0555 6321 A03 B03 C00 E01 F01 0 100