

## Differential pressure transmitter

### SPECIFICATIONS

#### testo 6321



A differential pressure transmitter with a good price/performance ratio for applications in air conditioning and ventilation technology. The automated building services must always be monitored precisely, whereby the requirements placed on the measuring technology are increased. **testo 6321** fulfills these requirements by ensuring the best possible system function, optimization of the climatic conditions and energy savings by means of highly accurate measurement, stable over the long-term, of the differential pressure.

#### Areas of application:

- Industrial and commercial buildings, e.g. in production and storage
- Offices and administrative buildings
- Sales areas and exhibition halls
- Museums and libraries
- School buildings, hotels, clinics etc.



### PERFORMANCE FEATURES

#### testo 6321

- Piezoresistive measuring cells in the measuring range of 100 Pa to 2 bar
- Freely scalable:  $\pm 50\%$  of measuring range final value
- Magnetic valve for automatic zero-point adjustment
- External interface for parameterization, adjustment and analysis (P2A)
- Accuracy  $\pm 1.2\%$  of measuring range + intrinsic error of 0.3 Pa – valid for zeroing cycle of 60 sec/nominal temperature +22 °C
- Diverse analog outputs and measuring ranges
- Display optional
- Freely scalable within measuring ranges



# Differential pressure transmitter

## Technical data

Parameters		
<b>Differential pressure</b>		
Meas. 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 inaccuracy*	±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 cyclic zero-point adjustment)	
Sensor	Piezoresistive sensor	
Autom. zero-point adjustment	via magnetic valve	
Overload capacity	<b>Meas. range</b>	<b>Overload</b>
	0 to 100 Pa	20,000 Pa
	0 to 10 hPa	200 hPa
	0 to 20 hPa	200 hPa
	0 to 50 hPa	750 hPa
	0 to 100 hPa	750 hPa
	0 to 500 hPa	2500 hPa
	0 to 1000 hPa	2500 hPa
	0 to 2000 hPa	2500 hPa
	-100 to 100 Pa	20,000 Pa
	-10 to 10 hPa	200 hPa
	-20 to 20 hPa	200 hPa
	-50 to 50 hPa	750 hPa
	-100 to 100 hPa	750 hPa
	-500 to 500 hPa	2500 hPa
	-1000 to 1000 hPa	2500 hPa
	-2000 to 2000 hPa	2500 hPa

General		
<b>Housing</b>		
Material/colour	ABS/ pure white (RAL 9010) or light grey	
Weight	approx. 160 g	
<b>Display</b>		
Display	1-line LCD (optional)	
Resolution	<b>Meas. range</b>	<b>Resolution</b>
	0 to 100 Pa	0.1
	0 to 10 hPa	0.01
	0 to 20 hPa	0.01
	0 to 50 hPa	0.01
	0 to 100 hPa	0.1
	0 to 500 hPa	0.1
	0 to 1000 hPa	0.001
	0 to 2000 hPa	0.001
	-100 to 100 Pa	0.1
	-10 to 10 hPa	0.01
	-20 to 20 hPa	0.01
	-50 to 50 hPa	0.01
	-100 to 100 hPa	0.1
	-500 to 500 hPa	0.1
	-1000 to 1000 hPa	0.001
	-2000 to 2000 hPa	0.001
<b>Miscellaneous</b>		
Protection class	IP 65 only if the transmitter is wired and/or sealing plugs are inserted	
EMC	EC Directive: 2004/108/EC	
Automatic zero-point adjustment	Every 60 seconds in the factory setting	

Inputs and outputs	
<b>Analog outputs</b>	
Output type	0 to 1/5/10 V (4-wire) 4 to 20 mA (4-wire)
Meas. cycle	1/sec
Resolution	12 bit
Accuracy of 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
<b>Additional outputs</b>	
Other analog outputs	Mini-DIN for P2A software (adjustment and parameterization software)
<b>Supply</b>	
Voltage supply	20 to 30 V AC/DC
Current consumption	300 mA

Operating conditions	
Humidity (sensors)	0 to 90% RH
Temperature (sensors)	-5 to +50 °C
Storage temperature	-40 to +80 °C

\* Measurement inaccuracy according to GUM: ±1.2% of measuring range final value ±0.3 Pa

GUM (Guide to the Expression of Uncertainty in Measurement):  
ISO guideline for the determination of measurement uncertainty, in order to make measurement results comparable worldwide.

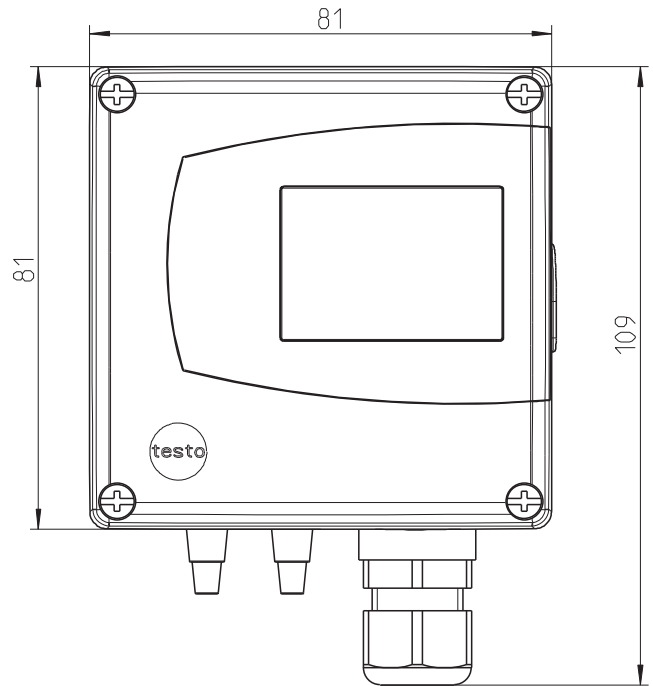
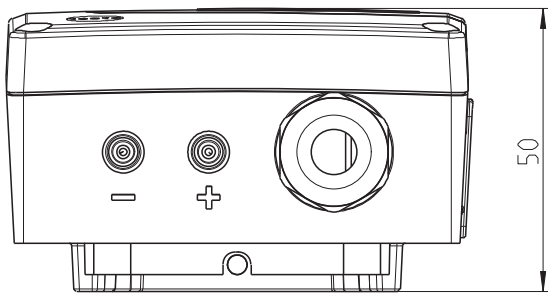
The following variables are taken into account in determining uncertainty:

- Hysteresis            - Long-term stability
- Linearity             - Adjustment site/works calibration
- Reproduceability   - Test site

Subject to misprints and change, including technical changes.

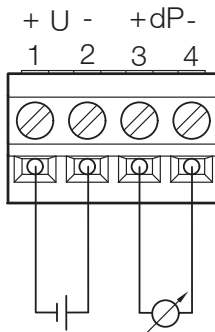
# Differential pressure transmitter

## Technical drawings

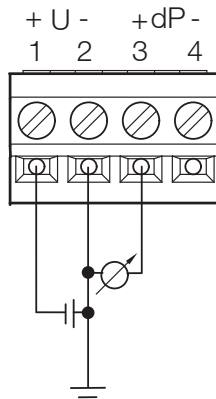


## Pin assignment

4-wire wiring



Wiring, 3-wire



Subject to misprints and change, including technical changes.



# Differential pressure transmitter

The following options can be specified for the testo 6321:

<b>AXX</b>	<b>Measuring range</b>
<b>BXX</b>	<b>Analog output/supply</b>
<b>CXX</b>	<b>Display</b>
<b>EXX</b>	<b>Housing colour</b>
<b>FXX</b>	<b>Unit</b>
<b>KXX</b>	<b>Language of the instruction manual (for bilingual paper instruction manual)</b>

Delivery with wall bracket

<b>AXX</b>	<b>Measuring range</b>
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

<b>BXX</b>	<b>Analog output/supply</b>
B02	0 to 1 V (4-wire, 24 V AC/DC)
B03	0 to 5 V (4-wire, 24 V AC/DC)
B04	0 to 10 V (4-wire, 24 V AC/DC)
B06	4 to 20 mA (4-wire, 24 V AC/DC)

<b>CXX</b>	<b>Display</b>
C00	Without display
C01	With display

<b>EXX</b>	<b>Housing colour</b>
E00	Housing colour light grey, with testo logo (in colour)
E01	Neutral housing, pure white, without testo logo
E02	Neutral housing, pure white, with testo logo (black-and-white)

<b>FXX</b>	<b>Unit</b>
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/cm <sup>2</sup> /Min/Max
F10	PSI/Min/Max

<b>KXX</b>	<b>Language of the instruction manual</b>
K01	German/English instruction manual
K02	French/English instruction manual
K03	Spanish/English instruction manual
K04	Italian/English instruction manual
K05	Dutch/English instruction manual
K06	Japanese/English instruction manual
K07	Chinese/English instruction manual
K08	Swedish/English instruction manual

## 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 mbar
- Language of instruction manual German/English

**0555 6321 A03 B03 C00 E00 F04 K01**

K – TEST, s.r.o.  
 Letná 40  
 042 60 Košice  
 Tel/fax.: 055 6253633, 6255159  
 ktest@iol.sk, ktest@ktest.sk  
 www.ktest.sk, www.testo.sk  
 0905 522488