

Temperature transmitter

Instruction manual



1 Specifications

The product is available in various versions. The product code is specified on the identification plate and clearly identifies the product version (x is a placeholder for a number):

0555 6920 Axx Bxx Cxx Exx Sxx Gxx Kxx Wxx Yxx

Specifications that are only valid for particular product versions are marked in this document.

1.1. Use

The testo 6920 is intended for:

Monitoring (measurement) and regulation (nominal value specification) of the temperature in rooms (e.g. industrial buildings, offices, commercial and public buildings, hospitals and museums).
Monitoring (measurement) of the temperature in air conditioning ducts.

Versions with active analog output signal (B0x):

Evaluation of the readings/analog signals via a control unit connected to the transmitter (PLC or building control system). The optional interface (S01) allows fast parameterization via the P2A software (accessory) and a temperature or analog adjustment.

The testo 6920 must not be used for:

Monitoring and regulation operations that serve the purpose of sustaining health or life.

1.2. Technical data

Characteristic	Values
Sensor	5 kOhm NTC (B01, B02, B03, B04) Pt 100 class A looped through (B21) Pt 100 class B looped through (B22) Pt 1000 class B looped through (B23) NI 1000 looped through (B24) 5 kOhm NTC looped through (B25) 10 kOhm NTC looped through (B26)
Units	°C (G01), °F (G02)

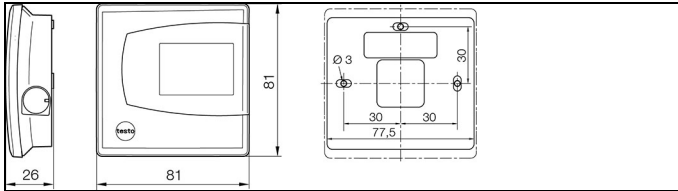
Characteristic	Values
Measuring range	0 - 70 °C/32 - 158 °F (B0x, C00) 0 - 50 °C/32 - 122 °F (B0x, C01) -20 - 70 °C/-4 - 158 °F (B2x)
Resolution	0.1 °C/0.1 °F
Accuracy	±0.5 °C / ±0.9 °F (B0x) ¹
Channels	1
Measuring rate	1/sec
Outputs	4 - 20 mA ±0.05 mA (B01) 0 - 1 V DC ±2.5 mV (B02) 0 - 5 V DC ±12.5 mV (B03) 0 - 10 V DC ±25 mV (B04) Resistance value of temp. sensor (B2x)
Nominal value adjusting range	10 - 32 °C (W01, W04, W07) 50 - 90 °F (W02, W05, W08) -..0..+ (W03, W06, W09)
Ambient temperature	0 - 70 °C/32 - 158 °F (B0x, C00) 0 - 50 °C/32 - 122 °F (B0x, C01) -20 - 70 °C/-4 - 158 °F (B2x)
Transport/storage temperature	-40 - 70 °C/-40 - 158 °F
Display	1-line, 7-segment (C01)
Voltage supply	20 - 30 V DC/AC (B02, B03, B04) 24 V DC ±10 % (B01)
Cable coupling	1x M16x1.5 (A02)
Housing	ABS, pure white (RAL 9010)
Protection class	IP30 (A01) IP65 (A02)
Dimensions	81 x 81 x 26 mm/3.19 x 3.19 x 1.03" (A01) 81 x 81 x 42 mm/3.19 x 3.19 x 1.66", without probe shaft (A02)

¹ The electric power loss of the instrument influences the temperature measurement. This is taken into account by an offset value set by the factory. Depending on the operating point, additional deviations of up to ±2 °C may occur. The optional adjustment function allows an adjustment for the particular application in order to increase the accuracy.

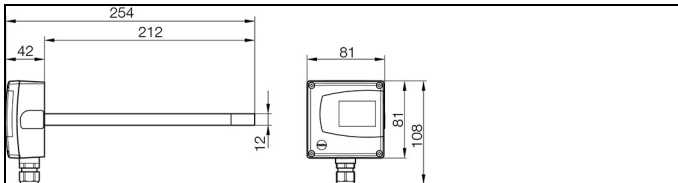
Characteristic	Values
Weight	80 g (A01)
	160 g (A02)
Guidelines, standards	2004/108/EC, EN 60730-1
Warranty	2 years

Dimensions (in mm)

A01:



A02:



1.3. Ensure safety

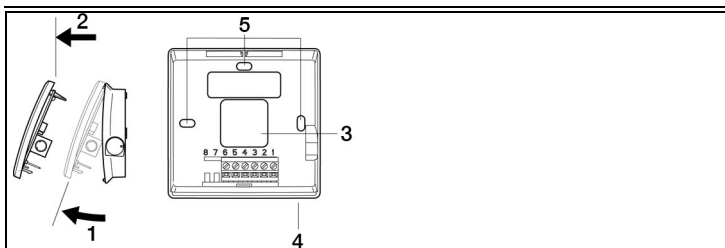
- > Installation and assembly must only be performed by qualified personnel.
- > Only operate the product properly, for its intended purpose and within the parameters specified in the technical data. Do not use force.

2 Using the product

2.1. Assembly

Assembly of A01

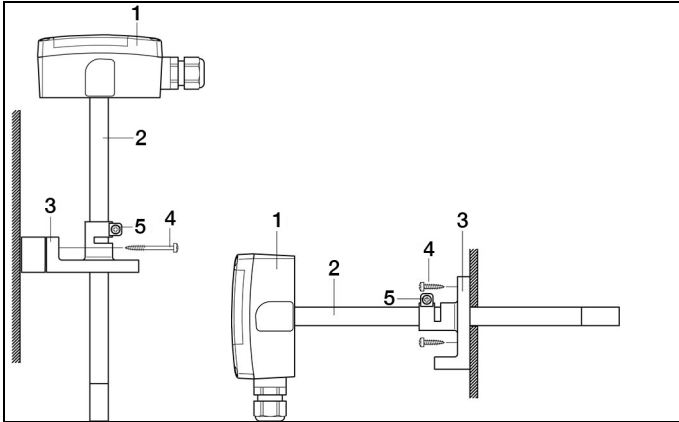
- i** Temperature values are measured at poorly insulated exterior walls that do not reflect the average values in the room. It is recommended that the instrument be installed on well insulated exterior or interior walls.



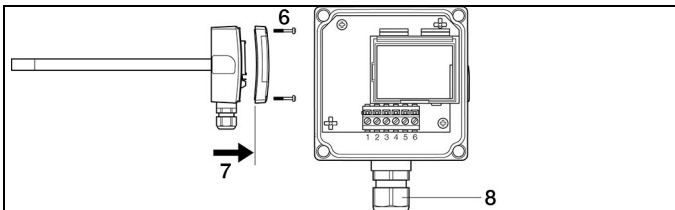
1. To open the housing (no connector may be inserted in the mini-DIN socket): lift up the upper part of the housing (1) and remove (2).
2. Guide the cable from behind (3) or underneath (4), (detach pre-punched area of the housing) into the lower part of the housing.
3. Depending on the conditions in situ: Fasten lower part of housing at the slots (5) using appropriate screws (not supplied).
4. After wiring (see below): Replace the upper part of the housing.

Assembly of A02

The illustrations below show the instrument assembled on a wall (left) and a ventilation duct (right) with the wall/duct holder (accessory, 0554 6651) as an example:



- 1 testo 6920-A02 (duct)
- 2 Probe shaft
- 3 Wall/duct holder (accessory 0554 6651), for assembly on wall with spacer.
- 4 Fastening screws (customer-specific, not included)
- 5 Locking screw for fastening the probe shaft



1. Assemble the instrument according to the conditions in situ.
2. To open the housing. Loosen the 4 screws in the upper part of the housing (6) and remove the upper part of the housing (7).
3. Guide the cable through the cable coupling (8) into the lower part of the housing.
4. Detach terminals, connect wires and reattach terminals.
5. After wiring (see below): Close the cable coupling to fix the cable (right-handed thread) and replace upper part of housing.

2.2. Electrical connection

- i** Make sure when routing cables that there is space between the signal lines and interfering external lines.
If electromagnetic interference is likely, use a shielded and/or twisted cable. The shield must be connected to earth on the side facing away from the transmitter. If overvoltages are likely, install overvoltage protection devices.

Recommendation: line with a tightly plaited shield, wire cross-section of 0.25 - 0.5 mm².

- i** Do not exchange the upper and lower parts of housing as the terminal assignment of the respective product version is printed on the inside.
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- > Perform the wiring according to the terminal assignment printed in the upper part of the housing.

2.3. Operation

2.3.1. Nominal value controller (C00)

Setting nominal value (W03)

- > At extreme left: max. colder (0 % output signal).
- > Centre position scale 0: Basic setting (50 % output signal).
- > At extreme right: max. warmer (100 % output signal).

Setting nominal value (W01, W02, W04, W05, W07, W08)

- > At extreme left: high resistance value.
- > At extreme right: low resistance value.

Setting nominal value (W06, W09)

- > At extreme left: low resistance value.
- > Centre position scale 0: median resistance value (basis nominal value for the control system).
- > At extreme right: high resistance value.

2.3.2. Nominal value controller (C01)

Displaying set nominal value

- > Press [▲] or [▼] key.
- After 5 s, it reverts back to the temperature display.

Setting nominal value

1. Hold down [▲] and [▼] key until the display flashes.
 2. Set the nominal value with the [▲] and [▼] keys. Hold down keys to fast-forward.
- If no key is pressed, after 5 s the set value is adopted and it reverts back to the temperature display.

2.4. Parameterizing/adjusting the instrument

The instrument is parameterized, adjusted and analyzed using the P2A software, see instruction manual for the software: www.testo-international.com, Service&Support | Download Center

3 Maintaining the product

Cleaning the instrument

- > If the housing of the instrument is dirty, clean it with a damp cloth.

Do not use any aggressive cleaning agents or solvents! Weak household cleaning agents and soap suds may be used.

3.1. Questions and answers

If we could not answer your question, please contact your dealer or Testo Customer Service. For contact details see the rear side of this document or the web page www.testo.com/service-contact.



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