



# Standard transmitter



-20...+120 °C  
±2 %RH

Humidity and temperature determine the quality of many products. Testo humidity and temperature transmitters from the hygrotest 600 series are used when stable measurement and control of humidity and temperature are required.



Display optional

### hygrotest 600 WH/WHT

#### Ambient air measurement

hygrotest 600 WH, Standard transmitter to measure humidity, incl. calibration protocol

hygrotest 600 WHT -20/70, Standard transmitter to measure humidity and temperature up to +80 °C, incl. calibration protocol

### hygrotest 600 DH/DHT

#### Climate duct measurement

hygrotest 600 DH, Standard transmitter to measure humidity, incl. calibration protocol

hygrotest 600 DHT -20/70, Standard transmitter to measure humidity and temperature up to +80 °C, incl. calibration protocol

hygrotest 600 DHT -20/120, Standard transmitter to measure humidity and temperature up to +120 °C, incl. calibration protocol

### hygrotest 600 PHT

#### Versatile measurement

hygrotest 600 PHT -20/70, Standard transmitter to measure humidity and temperature up to +80 °C, incl. calibration protocol

hygrotest 600 PHT -20/120, Standard transmitter to measure humidity and temperature up to +120 °C, incl. calibration protocol

- Easy on-site humidity adjustment by user
- Three different versions available with:  
humidity socket or humidity and temperature socket
- Easy, fast installation possible via DIN rail

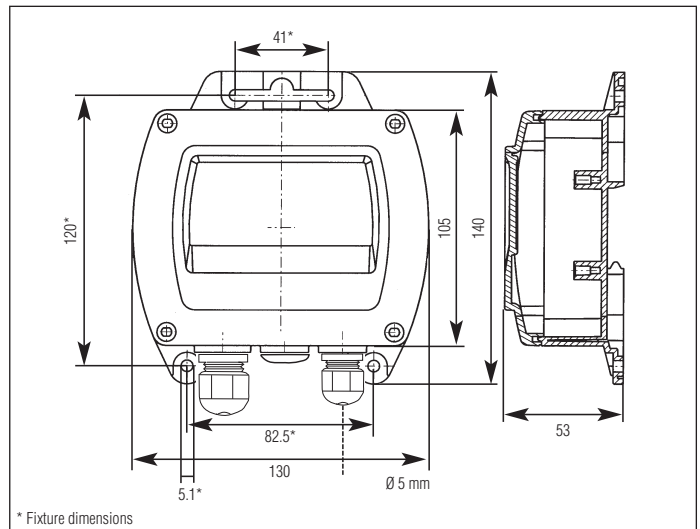
## Transmitters and optional extras hygrotest 600 (□ optional, ■ Standard)

Order code	Designation	600 WH	600 WHT -20/70	600 DH	600 DHT -20/70	600 DHT -20/120	600PHT -20/70	600 PHT -20/120
<b>Analog output</b>								
B1	4...20 mA (2 wire system)	■	■	■	■	■	■	■
<b>Probe</b>								
	Probe material	Plastic (PC)	Plastic (PC)	Plastic (PC)	Plastic (PC)	St. steel 1.4571	Plastic (PC)	St. steel 1.4571
C1	Probe length, Standard incl. sensor protection cap	65 mm	65 mm	200 mm	200 mm	200 mm	100 mm	210 mm
C2	Stainless steel special probe length... (min. 80 mm; max. 800 mm)					□		□
C3	Plastic special probe length 100 mm			□	□			
D1	Standard cable length 2 m						■	■
D2	Special cable length to probe tip... (min. 250 mm; max. 2 m)						□	□
<b>Adjustment</b>								
F1	Humidity adjustment ±2 %RH	■	■	■	■	■	■	■
<b>Sensor protection caps</b>								
G1	Stainless steel sintered filter	□	□	■	■	■	■	■
G2	Cap with wire mesh filter	□	□	□	□	□	□	□
G3	Teflon sintered filter	□	□	□	□	□	□	□
G4	Metal protection cage, open	□	□	□	□	□	□	□
G5	ABS cap, open	■	■	□	□	□	□	□
<b>Displays</b>								
H1	Two-line display – loop feed with limited load	□	□	□	□	□	□	□
H2	Two-line display – external feed with maximum load	□	□	□	□	□	□	□
H3	Two-line display with RS485 – no analog outputs possible	□	□	□	□	□	□	□
H4	Two-line display with RS485 – analog outputs possible	□	□	□	□	□	□	□
H5	Two-line display with RS485 and 2 x 2 limit signal outputs – analog outputs possible	□	□	□	□	□	□	□
H6	Two-line display with 2 x 2 limit signal outputs – analog outputs possible	□	□	□	□	□	□	□
H7	One-line display – loop feed with limited load	□	□	□	□	□	□	□
<b>Scaling</b>								
K1	Standard scaling, channel 1; 4...20 mA ± 0...100 %RH	■	■	■	■	■	■	■
K2	Special scaling, channel 1; 4...20 mA ± ...selected unit under "L" Important: indicate the upper and lower scaling limits	□	□	□	□	□	□	□
L1	Relative humidity in %RH	□	□	□	□	□	□	□
L2	Dew point in °Ctd	□	□	□	□	□	□	□
L3	Dew point in °Ftd	□	□	□	□	□	□	□
M1	Standard scaling, channel 2; 4...20 mA ± temperature scaling		-20...+70 °C		-20...+70 °C	-20...+120 °C	-20...+70 °C	-20...+120 °C
M2	Special scaling, channel 2; 4...20 mA ± ...selected unit under "N" Important: indicate the upper and lower scaling limits		□		□	□	□	□
N1	Temperature in °C		□		□	□	□	□
N2	Temperature in °F		□		□	□	□	□

## Applications, Technical Data, Practical Accessories



**Typical applications:** Clean rooms; air dehumidification systems; coating systems; air conditioning units; conditioning cabinets; food production; storage



\* Fixture dimensions

### Ordering data for Accessories

#### Part no.

Stainless steel flange for screw connections to DIN 2576	0554 1797
Holder for transmitter with lock	0554 1782
Control and adjustment set consisting of 11.3 %rF and 75.3 %RH saturated salt solutions, can be used several times	0554 0660
Reference set to adjust transmitter consists of: testo 650 hand-held instrument, 1 %RH humidity/temperature probe with certificate, connection cables and service case	On request
Connection cable for adjusting the transmitter with testo 650 or testo 400 hand-held instrument, cable: 1.5 m long	0409 0214
ComSoft 3 for hygrotest transmitter for data management incl. database, analysis and graphics function, data analysis, trend curve, automatic storage of readings. Included in the package is the software and a level converter from RS485 to RS232. Only possible with a display with RS485 output.	0554 0842
Description of the RS232 interface of hygrotest 600 with connecting cable from transmitter to RS232	0551 0167
Scaling adapter for hygrotest, consisting of: level converter, scaling software, Instruction Manual	On request
Spare level converter from RS485 to RS232	0554 9912
220 V - 24 V DC mains unit	0554 1742
Protection from moisture (aluminium) Protects sensor from condensation e.g. in drying systems	0554 0166
Stainless steel protection cap (sintered filter), pore size 100 µm Sensor protection in dusty atmospheres or at higher flow speeds	0554 0647
Protection cap made of wire mesh filter Protects sensor from large particles	0554 0757
Protection cap made of Teflon (sintered filter) Protects sensor when humidity levels high and atmospheres critical	0554 0756
Protection cap made of metal (open) Fast response time (not suitable in dusty atmospheres)	0554 0755
Protection cap made of Teflon With 1.5 mm condensate drip hole	0554 9913
Upgrade set for display consisting of display board, bolts, housing cover with window and detailed Instruction Manual	
<b>ISO calibration certificate/Humidity</b> At 11.3 %RH and 75.3 %RH	0520 0076
<b>DKD calibration certificate/Humidity</b> At 11.3 %RH and 75.3 %RH	0520 0246

### Additional Ordering data for hygrotest 600 DH and 600 DHT

#### Part no.

Basic single hole duct screw connection made of plastic	0554 1793
Duct screw connection (aluminium/PVC)	0554 1794

### Additional Ordering data for hygrotest 600 DHT -20/120 / PHT -20/120

#### Part no.

Pressure-tight screw connection 1/2" (stainless steel) with cutting ring to 30 bar	0554 1795
Pressure-tight screw connection 1/2" (stainless steel) with Teflon ring to 6 bar	0554 1796
Wall holder (aluminium coated)	0554 1798

### Technical data

#### Housing:

Material	ABS, colour grey (RAL 7035)
Dimensions	130 x 140 x 53 mm
Protection type	IP 65
Screw connections	M16 x 1.5
Ambient temp.	-20...+70 °C
Storage temp.	-40...+80 °C

#### Sensor:

Humidity	Testo humidity sensor
Temperature	NTC

#### Measurement range:

Humidity	0...100 %RH
Temperature	
Version	Meas. range: Temperature
600 WH	-
600 WHT -20/70	-20...+80 °C
600 DH	-
600 DHT -20/70	-20...+80 °C
600 DHT -20/120	-20...+120 °C
600 PHT -20/70	-20...+80 °C
600 PHT -20/120	-20...+120 °C

#### Accuracy:

Humidity	±2 %RH (in the range 0...90 %RH) ±3 %RH (in the range 90...100 %RH)
Temperature	±0.3 °C (-20...+50 °C) 1.5 % of reading (> 50 °C)

#### Analog outputs:

Humidity and temperature	4...20 mA (in 2 wire system)
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Typical temperature dependencies of outputs  
±0.002 mA/°C  
(referred to 25 °C)

#### Analog output/Humidity:

Resolution	0.02 mA
Accuracy	0.04 mA at +20 °C
Drift	0.001 mA/K

#### Analog output/Temperature:

Resolution	0.02 mA
Accuracy	0.04 mA
Drift	0.003 mA/K

#### Power:

Power	24 V DC (10...30 V DC)
Power with display	Minimum 20 V DC
Max. load without display	At 10 V 100 Ω At 18...30 V 500 Ω
Max. load with display	At 20...30 V 100 Ω

#### Response time:

t90 approx. 10...20 s

**All data refer to a nominal temperature of +22 °C**

#### Probe:

Version	Material	Diameter	Length incl. protection cap	Sensor protection cap
600 WH	PC	12 mm	65 mm	ABS slotted
600 WHT -20/70	PC	12 mm	65 mm	ABS slotted
600 DH	PC	12 mm	200 mm	St. steel sintered cap
600 DHT -20/70	PC	12 mm	200 mm	St. steel sintered cap
600 DHT -20/120	Stainless steel	12 mm	200 mm	St. steel sintered cap
600 PHT -20/70	PC	12 mm	100 mm	St. steel sintered cap
600 PHT -20/120	Stainless steel	12 mm	210 mm	St. steel sintered cap

%RH

°C

°C td