

Technical data probe range testo 6610

	testo 6611	testo 6612	testo 6613	testo 6614	testo 6615	testo 6617
Type	Wall	Cable	Cable	Heated cable	Cable trace humidity (self-adjustment)	Cable with cover electrode monitoring
Operating range	Room climate probe wall mounting	Process humidity probe duct mounting	Process humidity probe flexible with cable	Humidity probe for high humidity applications / when risk of condensation	Humidity probe for trace humidity / dewpoint (with self-adjustment)	Humidity probe with self-monitoring for sensor-damaging media

Measurement parameters

Humidity						
Measuring range***	0 to 100 %RH			see trace humidity	0 to 100 %RH	
Measurement uncertainty* (+25 °C)**	testo 6611/12/13: $\pm(1.0 + 0.007 * mv)$ %RH for 0 to 100 %RH / $\pm(1.4 + 0.007 * mv)$ %RH for 90 to 100 %RH; testo 6614: $\pm(1.0 + 0.007 * mv)$ %RH for 0 to 100 %RH; testo 6617: $\pm(1.2 + 0.007 * mv)$ %RH for 0 to 90 %RH / $\pm(1.6 + 0.007 * mv)$ %RH for 90 to 100 %RH +0.02 %RH per Kelvin dependent on the process and electronics temperature (for a deviation of 25 °C / 77 °F)					
Selectable units	%RH; °C _{td} /°F _{td} ; g/m ³ / gr/ft ³ ; g/kg / gr/lb; kj/kg; BTU/lb; °C _{tw} /°F _{tw} ; hPa; inch H ₂ O ₂ ; ppm vol %; %vol; °C _{tm} (H ₂ O ₂)/ °F _{tm} (H ₂ O ₂)					
Reproduceability	better than ± 0.2 %RH					
Long-term drift	$\leq \pm 1$ %RH / drift per year					
Sensor	Testo capacitive humidity sensor, plug-in	Testo capacitive humidity sensor; soldered				
Response time	t90 max. 10 sec.					
Temperature						
Selectable units	°C/°F					
Measuring range	-20 to +70 °C/ -4 to +158 °F	-30 to +150 °C/ -22 to +248 °F	-40 to +180 °C/-40 to +356 °F		-40 to +120 °C/ -40 to +248 °F	-40 to +180 °C/ -40 to +356 °F
Measurement uncertainty* (at +25 °C / +77 °F)	± 0.15 °C / 0.27 °F (Pt1000 Class AA)			Pt100 Class AA	Pt1000 Class AA	
Trace humidity						
Trace humidity	-60 to +30 °C _{td} / -76 to +86 °F _{td}					
Measurement uncertainty					± 1 K at 0° C _{td} ± 2 K at -40° C _{td} ± 4 K at -50° C _{td}	

General technical data

Probes						
Probe shaft	Stainless steel					
Cable	FEP coated					
Plug	Plastic ABS					
Probe dimensions (diameter)	12 mm					
Probe dimensions (probe shaft length)	70/200 mm	200/300/500/800 mm	120/200/300/500/800 mm	200/500 mm		
Cable length	–	especially for duct versions	1/2/5/10 m			

Operating conditions

Pressure tightness	1 bar positive pressure (probe tip)	PN 10 (probe tip) PN 1 (probe tip)	PN 16 (probe tip)	1 bar positive pressure (probe tip)
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* Other accuracies apply for wall probe length 70 mm combined with a current output (P07):
Operation: 2 channels at 12 mA, without display illumination, relay off, additional measurement error to above values at +25 °C (+77°F), humidity ± 2.5 % RH

****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%.

***For continuous applications in high humidity (>80 %RH at ≤ 30 °C for >12 h, >60 %RH at > 30 °C for >12h), please contact us via www.testo.com. testo 6614 is suitable for high humidity applications.