

Compressed air quality measurement

testo 6721 Dew Point Switch – easy monitoring of humidity in compressed air down to $-30\text{ }^{\circ}\text{C}_{\text{tpd}}$

The application

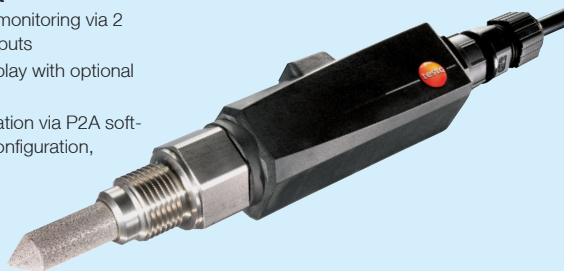
Stationary monitoring of trace moisture in cooling dryers, membrane dryers and pneumatic systems in the range down to $-30\text{ }^{\circ}\text{C}_{\text{tpd}}$

The benefit

Extension of the life and increase in reliability of the system, i.e. protection from damage from corrosion, ice, "water hammer" and material adhesion due to high moisture in compressed air lines

The product

- Low-cost monitoring via 2 switch outputs
- Status display with optional alarm box
- Easy operation via P2A software for configuration, etc.



testo 6721
Part no. 0555 6721

Technical data testo 6721

Measuring range	-30 to $+30\text{ }^{\circ}\text{C}_{\text{tpd}}$ (-22 to $+86\text{ }^{\circ}\text{F}_{\text{tpd}}$)
Accuracy	$\pm 4\text{ K}$ (-30 to $-20\text{ }^{\circ}\text{C}_{\text{tpd}}$ / -22 to $-4\text{ }^{\circ}\text{F}_{\text{tpd}}$) $\pm 3\text{ K}$ (-20 to $-10\text{ }^{\circ}\text{C}_{\text{tpd}}$ / -4 to $14\text{ }^{\circ}\text{F}_{\text{tpd}}$) $\pm 2\text{ K}$ (-10 to $0\text{ }^{\circ}\text{C}_{\text{tpd}}$ / 14 to $32\text{ }^{\circ}\text{F}_{\text{tpd}}$) $\pm 1\text{ K}$ ($>0\text{ }^{\circ}\text{C}_{\text{tpd}}$ / $>32\text{ }^{\circ}\text{F}_{\text{tpd}}$)
Sensor	Testo humidity sensor (with special trace humidity adjustment) and NTC temperature sensor
Process pressure	max. 20 bar (abs) (290 psi)
Process temperature	0 to $+50\text{ }^{\circ}\text{C}$ (32 to $122\text{ }^{\circ}\text{F}$)
Outputs	2 x switches potential-free max. 30 V/0.5 A
Interface	Mini-DIN interface (serial) for parameterization / adjustment / analysis via P2A-Software
Voltage supply	20 to 30 VAC/VDC



Alarm box with 2 alarm LEDs (green/red). Connection to digital inputs of PLC or other alarm (lamps).

Alarm box (option)

Part no. 0554 6722

testo 6740 Series – Advanced humidity monitoring for compressed air down to $-60\text{ }^{\circ}\text{C}_{\text{tpd}}$

The application

Reliable stationary monitoring of humidity in compressed air down to the dry range of $-45\text{ }^{\circ}\text{C}_{\text{tpd}}$. Installation downstream of a granulate, membrane or adsorption dryer.

The benefit

Assures end product quality due to dry air/compressed air. Protection of the compressed air system and sensitive components from humidity damage caused by corrosion, ice, "water hammer" and material sticking. This extends the life of the system, and costly process interruptions can be avoided.

The product

- High reliability to $-45\text{ }^{\circ}\text{C}_{\text{tpd}}$ / $-49\text{ }^{\circ}\text{F}_{\text{tpd}}$ due to accurate and rugged Testo humidity sensor
- Analog output 4 to 20 mA, plus optional 2 switch outputs
- Compact design with rotatable housing through 350°



Instrument name	Thread	Display	Part no.
testo 6741	G 1/2"	without	0555 6741
testo 6742	NPT 1/2"	without	0555 6742
testo 6743	G 1/2"	with	0555 6743
testo 6744	NPT 1/2"	with	0555 6744

Technical data testo 6740

Measuring range	-60 to $+30\text{ }^{\circ}\text{C}_{\text{tpd}}$ (-76 to $+86\text{ }^{\circ}\text{F}_{\text{tpd}}$)
Accuracy	$\pm 1\text{ K}$ at $0\text{ }^{\circ}\text{C}_{\text{tpd}}$ / $32\text{ }^{\circ}\text{F}_{\text{tpd}}$ $\pm 3\text{ K}$ at $-20\text{ }^{\circ}\text{C}_{\text{tpd}}$ / $-4\text{ }^{\circ}\text{C}_{\text{tpd}}$ $\pm 4\text{ K}$ at $-40\text{ }^{\circ}\text{C}_{\text{tpd}}$ / $-40\text{ }^{\circ}\text{C}_{\text{tpd}}$
Sensor	Testo humidity sensor (with special trace humidity adjustment) and NTC temperature sensor
Process pressure	max. 50 bar (725 psi)
Process temperature	0 to $+50\text{ }^{\circ}\text{C}$ / 32 to $+122\text{ }^{\circ}\text{F}$
Outputs	2 x switches potential-free. 30 V/0.5 A (accessory) 1x analog: 4 to 20mA (2-wire)
Output parameters	$^{\circ}\text{C}_{\text{ta}}$, $^{\circ}\text{F}_{\text{ta}}$, %RH, ppmv, mg/m^3 , $^{\circ}\text{C}$, $^{\circ}\text{F}$
Voltage supply	20 to 30 VDC

Two-Pressure adjustment device for testo 6743

The application

In combination with the trace humidity measuring instrument testo 6743, this allows an adjustment (offset) to be performed during operation.

The benefit

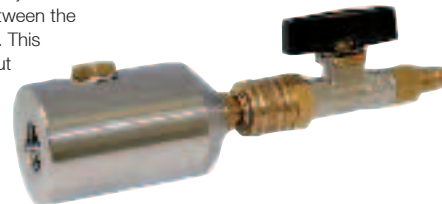
- Ensures the stated measurement accuracy over an extended period.
- Adjustment of the testo 6743 without instrument de-installation
- No reference instrument required
- Minimum time requirement

The product

Up to now, the adjustment of pressure dewpoint transmitters was generally carried out using a dewpoint mirror. This requires time-consuming and expensive measures such as deinstallation, acquisition of a dewpoint mirror, comparative measurements or even sending the transmitter off to a 3rd party laboratory.

Testo has developed a low-cost alternative which uses the principle that different pressure values result in different humidity values.

The 2-pressure adjustment device is simply installed between the process and the testo 6743. This makes it possible to carry out an accurate adjustment on site – without a reference measuring instrument.



2-pressure adjustment device

Part no. 0554 3314

Optimum application range: $-40\text{ }^{\circ}\text{C}_{\text{tpd}}$ to $0\text{ }^{\circ}\text{C}_{\text{tpd}}$