Dewpoint guard to -45 °C$_{td}$

testo 6721

Measurement of dewpoints in the measuring range -45 to +30 °C$_{td}$

2 switch outputs for monitoring limit values

Long term stable and condensation-proof Testo humidity sensor (polymer sensor) guarantees highest process security

P2A software for parameterization, adjustment and analysis saves time and costs in commissioning and maintenance

Low-budget solution for monitoring refrigeration dryers

Compact design allows easy integration into a refrigeration dryer or pneumatic machine

°C td

The testo 6721 is a low-budget dewpoint guard with two switch contacts for controlling and monitoring refrigeration and adsorption dryers.

The continuous monitoring and control of compressed air dryers was up to now often not economically viable. The testo 6721 closes this gap. Whether integrated as a component in the dryer or pneumatic machine, or installed by the customer: With this compact solution, you increase the efficiency of your dryer. At the same time, you avoid follow-on damage to systems and products caused by excessive humidity in the compressed air.

Technical data

Parameters

Dewpoint/trace humidity

Units	°C$_{td}$ / °F$_{td}$
Meas. range	-30 to +30 °C$_{td}$ (-22 to +86 °F$_{td}$) -45 to +30 °C$_{td}$ (-49 to +86 °F$_{td}$)
Measurement inaccuracy	±8 K > -40 °C$_{td}$ (-40 °F$_{td}$) ±4 K > -30 °C$_{td}$ (-22 °F$_{td}$) ±3 K > -20 °C$_{td}$ (-4 °F$_{td}$) ±2 K > -10 °C$_{td}$ (+14 °F$_{td}$) ±1 K > 0 °C$_{td}$ (32 °F$_{td}$)
Reaction time	$\langle$= 1s
Sensor	Testo humidity sensor with special trace humidity adjustment (polymer sensor)
Sensor protection	Stainless steel sintered filter (12 mm)

Temperature

Sensor	NTC

Inputs and outputs

Outputs

Switch outputs	2 x potential-free, switch voltage 24 VDC / VAC, switch current 0.5 A, optional wiring as NC contact or NO contact
Hysteresis and limit values	Free selection within measurement range through Order code, or set using P2A software
Measurement rate	1/s
Resolution switch output	0.1 °C$_{td}$ or 0.1 °F$_{td}$

Further outputs

Digital	Mini DIN interface (serial) for parameterization/adjustment/analysis through P2A software

Power

Voltage supply	24 VAC / VDC (20 to 30 VAC / VDC max.)

Current consumption

Outputs	AC or DC	Supply voltage [V]	Currnet consumption [mA]
2-wire current 4 to 20mA	DC	20 / 24 / 30	20 / 20 / 20
4-wire voltage	DC	24 / 30 / 20	7 / 7 / 20
	AC	24 / 30	22 / 28

General technical data

Design

Material	Plastic PAA GF30
Dimensions	167 x 33 x 33 mm
Weight	240 g

Installation

Thread / process connection	G½ thread (Order code A01) or NPT½" thread (Order code A02)

Other features

Protection class	IP65
EMC	In accordance with EU guideline 89/336/EEC

Operating conditions

Operating temperature (housing)	0 to +50 °C (32 to +122 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Measuring medium	Compressed air (filtered and dried, ISO 8573-classes 2-4-2)
Process pressure	max. 50 bar (abs.)

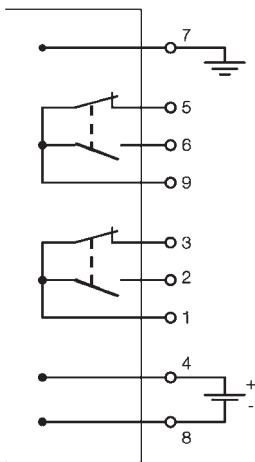# Technical drawings / Connection plan

Technical drawings
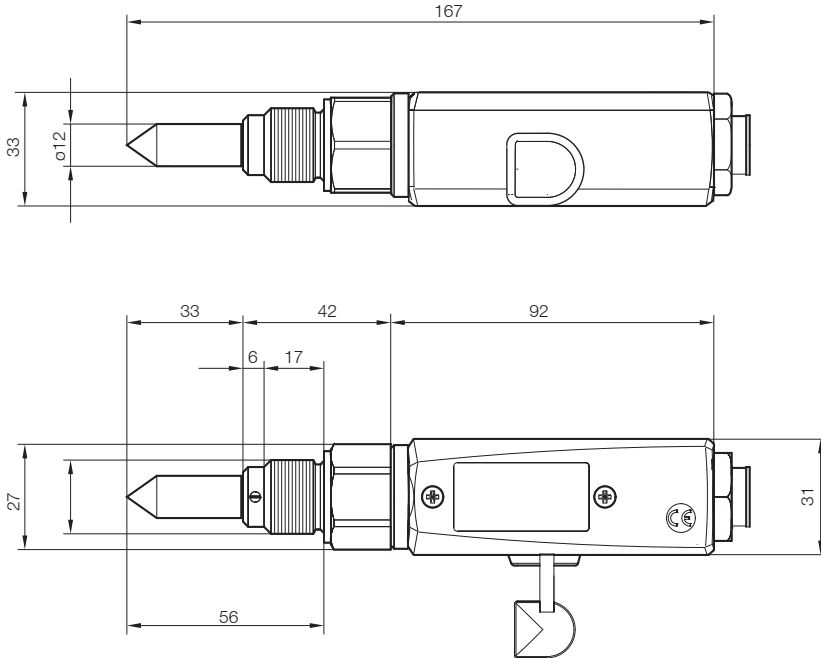
Connection plan
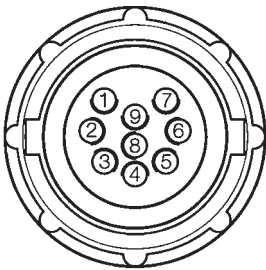
Pin allocation
1   Root switch contact 1
2   Closer switch contact 1
3   Opener switch contact 1
4   Supply +
5   Opener switch contact 2
6   Closer switch contact 2
7   Function earth
8   Supply -
9   Root switch contact 2

Options / Ordering example

The following options can be specified for the testo 6721:

AXX Process connection
BXX Measuring range
FXX Unit dewpoint / min. max. limit value / hysteresis (pre-setting)

AXX Process connection
A01 Process connection G½
A02 Process connection NPT ½"

BXX Measuring range
B01 Measuring range -30 ... +30 °C$_{td}$
B02 Measuring range -45 ... +30 °C$_{td}$

FXX Unit dewpoint / min. max. limit value / hysteresis (pre-setting)
F01 Dewpoint °C$_{td}$ / LV 1 / LV2 / hysteresis
F02 Dewpoint °F$_{td}$ / LV 1 / LV2 / hysteresis

Ordering example

Order code for testo 6721 with the following options:
- G½ thread
- Dewpoint in °C$_{td}$
- Measuring range -30 °C$_{td}$
- Lower limit value at 5 °C$_{td}$
- Upper limit value at 14 °C$_{td}$
- Hysteresis = 1 K

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Limit values: Without specification, default limit values are +5 °C$_{td}$ / +10 °C$_{td}$, at 1 Kelvin hysteresis (for unit °F: 45 °F$_{td}$ / 55 °F$_{td}$ / 2 °F hysteresis). They can be set to customer requirements with the help of the Order code, cf. Order example.