

Dewpoint guard to $-30\text{ }^{\circ}\text{C}_{td}$



SPECIFICATIONS

testo 6721



The testo 6721 is a budget dewpoint guard with switch contacts.

Continuously monitoring a "simple" compressed air refrigeration dryer was often not economically viable in the past. This security gap is now closed with the testo 6721. Whether integrated into the refrigeration dryer or pneumatic machine, or retrofitted by the customer, the testo 6721 avoids damage caused by excessive humidity in compressed air.



SPECIFICATIONS

testo 6721

- Measurement of dewpoints in the measuring range -30 to $+30\text{ }^{\circ}\text{C}_{td}$
- 2 switch outputs as output 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

Areas of application:

Since the testo 6721 has only a switch output, it is primarily suited to monitoring limit values. measurement values cannot be output via an analog signal. The budget monitoring function is particularly suitable at machine level, in order to protect a system, e. g. compressed air refrigeration dryers, from humidity damage. This avoids costly repair work necessary by high humidity, leading to icing, corrosion, material adhesion, "water hammer" (mechanical damage due to accelerated water deposits), and much more.



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Technical data testo 6721

Parameters	
Dewpoint/trace humidity	
Units	$^{\circ}\text{C}_{td}$ / $^{\circ}\text{F}_{td}$
Meas. range	-30 to $+30\text{ }^{\circ}\text{C}_{td}$ (-22 to $+86\text{ }^{\circ}\text{F}_{td}$)
Measurement inaccuracy	$\pm 4\text{ K}$ > $-30\text{ }^{\circ}\text{C}_{td}$ ($-22\text{ }^{\circ}\text{F}_{td}$) $\pm 3\text{ K}$ > $-20\text{ }^{\circ}\text{C}_{td}$ ($-4\text{ }^{\circ}\text{F}_{td}$) $\pm 2\text{ K}$ > $-10\text{ }^{\circ}\text{C}_{td}$ ($+14\text{ }^{\circ}\text{F}_{td}$) $\pm 1\text{ K}$ > $0\text{ }^{\circ}\text{C}_{td}$ ($32\text{ }^{\circ}\text{F}_{td}$)
Reaction time	$\leq 1\text{ s}$
Sensor	Testo humidity sensor with special trace humidity adjustment (polymer sensor)
Sensor protection	Stainless steel sintered filter (12 mm)
Temperature	
Sensor	NTC

General technical data	
Design	
Material	Plastic PAA GF30
Dimensions	167 x 33 x 33 mm
Weight	240 g
Installation	
Thread / process connection	G $\frac{1}{2}$ thread (Order code A01) or NPT $\frac{1}{2}$ " thread (Order code A02)
Other features	
Protection class	IP65
EMC	In accordance with EU guideline 89/336/EEC

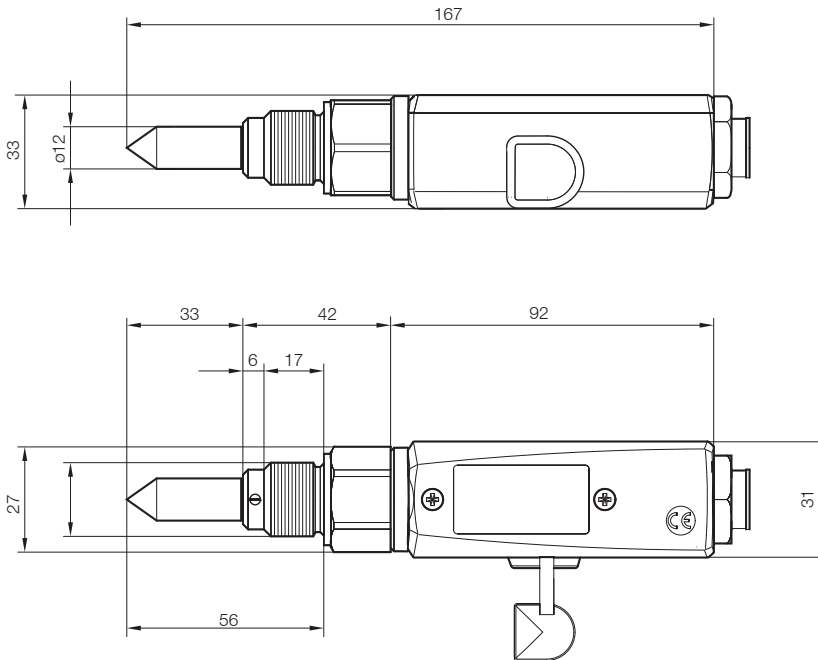
Inputs and outputs			
Outputs			
Switch outputs	2 x potential-free, switch voltage 24 VDC / VAC, switch current 0.5 A, optional wiring as NC contact or NO contact		
Hysteresis and limit values	Free selection within measurement range through Order code, or set using P2A software		
Measurement rate	1/s		
Resolution switch output	0.1 $^{\circ}\text{C}_{td}$ or 0.1 $^{\circ}\text{F}_{td}$		
Further outputs			
Digital	Mini DIN interface (serial) for parameterisation/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]	Current 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

Operating conditions	
Operating temperature (housing)	0 to $+50\text{ }^{\circ}\text{C}$ (32 to $+122\text{ }^{\circ}\text{F}$)
Storage temperature	-40 to $+70\text{ }^{\circ}\text{C}$ (-40 to $+158\text{ }^{\circ}\text{F}$)
Measuring medium	Compressed air (filtered and dried, ISO 8573-classes 2-4-2)
Process pressure	max. 20 bar (abs.)

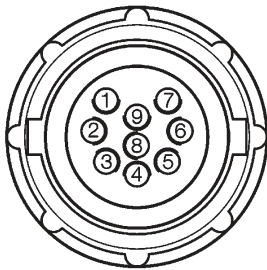


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Technical drawings

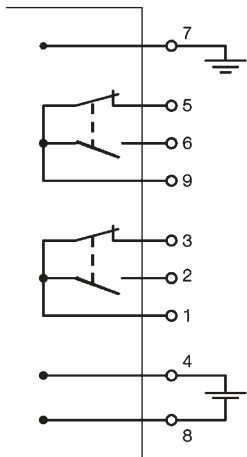


Connection plan



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





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The following options can be specified for the testo 6721:

AXX	Process connection
FXX	Unit dewpoint / min. max. limit value / hysteresis (pre-setting)
KXX	Instruction manual language

AXX	Process connection
A01	Process connection G $\frac{1}{2}$
A02	Process connection NPT $\frac{1}{2}$ "

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

KXX	Instruction manual
K01	IM German-English
K02	IM French-English
K03	IM Spanish-English
K04	IM Italian-English
K05	IM Dutch-English
K06	IM Japanese-English
K07	IM Chinese-English

Example:

Order code for testo 6721 with the following options:

- G $\frac{1}{2}$ thread
- Dewpoint in $^{\circ}\text{C}_{td}$
- Lower limit value at $5\text{ }^{\circ}\text{C}_{td}$
- Upper limit value at $14\text{ }^{\circ}\text{C}_{td}$
- Hysteresis = 1 K
- Instruction manual German-English

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

0555 6721 A01 F01 5 14 1 K01

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