Compressed-air thermometer hygrometer with Ethernet interface and relays



code: H3531P

Compressed-air ambient humidity, temperature Ethernet sensor with two relay outputs. T+RH probe from hard anodized duralumin for compressed air up to 25 bars with cable. Humidex reading.
Sensor H3531P is designed for online monitoring of temperature, relative humidity of air without aggressive substances. Three binary inputs to detection of two-states signals are the advantage. Other devices are controlled by two relay outputs.

High precision capacitive polymer sensor ensures excellent long term calibration stability and ultimate accuracy. Measured values are also converted to other humidity interpretation: dew point temperature, absolute humidity, specific humidity, mixing ratio and specific enthalpy.

The device is supplied with T+RH probe with 1m cable. Cable lengths 2m or 4m available optionally.

Processing and analysis of measured data:

- online in COMET Cloud
- COMET Database software
- integration into 3-party systems

Technical data

TEMPERATURE SENSOR	
Measuring range	-30 to +105 °C
Accuracy	±0.4 °C
Resolution	0.1 °C
HUMIDITY SENSOR	
Measuring range	0 to 100 % RH
Accuracy	±2.5 % RH from 5 to 95 % at 23 °C
Resolution	0.1% RH
DEW POINT	
Measuring range	-60 to +80 °C
Accuracy	±1.5°C for dew point temperature +10°C and higher at ambient temperature +25°C ±2.0°C for dew point temperature 0°C at ambient temperature +25°C ±3.0°C for dew point temperature -10°C at ambient temperature +25°C ±6.0°C for dew point temperature -20°C at ambient temperature +25°C
Resolution	0.1 °C
MEASURING THE MOISTURE OF COMPRESSED AIR	
Measuring range	up to 25 bars
Air flow velocity	up to 25 m/s at a pressure of 1 bar (1m/s at a pressure of 25 bar)
RELAY OUTPUTS	
Quantity	2
Maximal voltage	50 V

Maximal current	2 A
Maximal power	60 VA
BINARY INPUTS	
Quantity	3
Signal for binary inputy	dry contact, open collector or two-state voltage signal. Inputs are not galvanically isolated.
Minimum pulse duration on binary input	500 ms
Voltage across open contact	< 3,3 V
Low voltage level	0 to +0,5 V
High voltage level	+3,0 to +30 V
GENERAL TECHNICAL DATA	
Operating temperature	-30 to +80 °C
Channels	1x connectable temperature+humidity probe
Acoustic alarm	from built-in beeper - switchable
Counted values	humidex, dew point, absolute humidity, specific humidity, mixing ratio, specific enthalpy
Output	Ethernet
Measuring interval	2 s
Range of humidity sensor temperature compensation	all temperature range
Available temperature units	degrees Celsius, degrees Fahrenheit
Communication protocol	WWW, ModbusTCP, SNMPv1, SOAP, XML
Alarm protocols	E-mail (SMTP authentication is supported), SNMP Trap, Syslog
Power	9-30 Vdc
Protection class	IP40
Dimensions	136 x 159 x 45 mm; length/diameter of external probe 150/18 mm
External probe cable length	1 meter
Weight	approx. 410 g
Warranty	3 years