

## Thermometer hygrometer barometer with Ethernet interface and relays

code: H7531



Ambient temperature, relative humidity, atmospheric pressure with two relay outputs. Humidex reading.

Sensor H7531 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 at ambient temperature T <25 °C and RH >30 % |
| Resolution                         | 0.1 °C   |
| ATMOSPHERIC PRESSURE SENSOR SENSOR |  |
| Measuring range                    | 600 to 1100 hPa                                      |
| Accuracy                           | ±1.3 hPa at 23 °C from 800 to 1100 hPa               |
| Resolution                         | 0.1 hPa  |
| RELAY OUTPUTS                      |  |
| Quantity                           | 2  |
| Maximal voltage                    | 50 V   |

|   |   |
|---|---|
| Maximal current                                   | 2 A   |
| Maximal power                                     | 60 VA   |
| BINARY INPUTS                                     |   |
| Quantity  | 3   |
| Signal for binary input                           | dry contact, open collector or two-state voltage signal.<br>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  | internal atmospheric pressure sensor, 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 213 x 45 mm; stem length 75 mm  |
| External probe cable length                       | 1 meter   |
| Weight  | approx. 360 g   |
| Warranty  | 3 years   |