

Humidity Temperature Sensor (Plug)

Order-No: P 6311P - Temperature TP
 P 6312P - Temperature & Humidity KP
 P 6300 - Weather and Radiation Shield

- Compact meteorological sensors
- Low power, high precision
- Range - 30 ... +70°C and 0 ... 100 % RH
- Combined humidity-temperature sensor optional



Measurement principle

The temperature-humidity-transmitter series „xP“ are compact sensors in stick version with fixed connected cable. The relative humidity is measured by a capacitive sensing element and the value will be placed at the output as analogue signal. The temperature measurement is made by a PT100-resistor (1/3 DIN). The signal is available as an analogue output as well.

The sensors are obtainable as single temperature probe or as combined sensor for temperature and humidity measurement.

Mounting

The sensors are to be mounted at a climate representative spot. For protection against rain and direct radiation a weather and radiation shield should be used, which can be simply fixed to a mast.

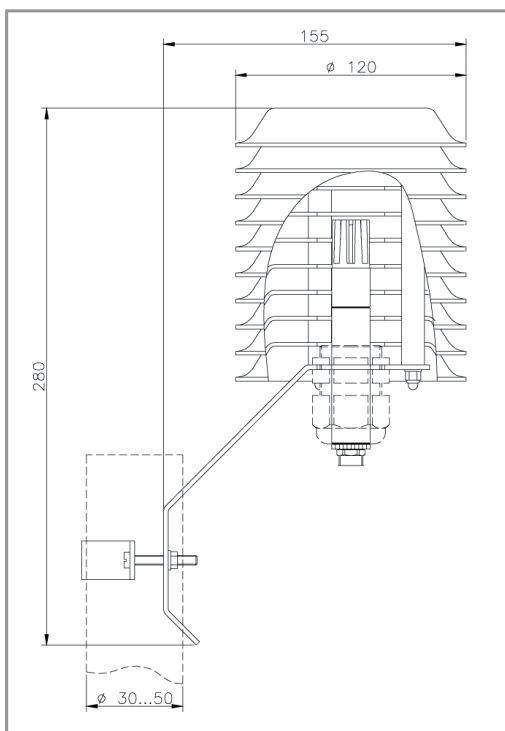
Please order this shield separately!

Take care of a good ventilation of the sensing element. Any mounting position is possible. Avoid penetration of water. Dew-formation doesn't do any harm to the element, but faulty measurements will occur until total drying.

Maintenance

The temperature sensing element is maintenance free. Only check the output after long use with a precise reference thermometer.

It is possible to make functional gauging of the humidity sensor. To do this the probe has to be exposed to a known reference humidity, e.g. the available „humidity-standard“ calibration set. If you unscrew the protection filter, keep in mind never to touch the element with fingers or any tool.



Humidity Temperature Sensor: P6300 / P6311P / P6312P (Plug)

Type	Temperature	Humidity
Measurement range	-30 ... +70°C	0 ... 100% r.H.
Slope (Data Logger Meteo-32)	100	100
Offset (Data Logger Meteo-32)	30	0
Accuracy	± 0.2K	5 ... 95% r.H. at 10 ... 40°C; ± 2% r.H.
Additional error	± 0.004%/K (<10°C, >40°C)	< 0.1%/K (<10°C, >40°C)
Resolution	0.1K	1% r.F.
Response time	5 min	5 min
Measurement principle	PT100 - 1/3 DIN	capacitive
Output signal	0V ... 1V	0V ... 1V
Operation supply	9 ... 30 VDC - approx. 1 mA / 2 mA	
Ambient Temperature	-40 ... +80°C	
Protection Sensor / Electronic	IP 30 / IP 65	
Weight	Sensor without cable: 0.350 kg, weather and radiation shield 1 kg	
Manufacturer	Galltec	

Order-No.

Sensors	Temperature (TP)	Temperature & Humidity (KP)
Order-No.	P6311P	P6312P
Accessories		
Weather and radiation shield	P6300	

Cables and wire colours

Sensor (P6311P)	Plug Pin No.	Wire Colour	Data Logger Meteo-32		Data Logger Meteo-40	
			Plug Meteo Pin	Plug Xtend Pin	Analog Voltage	Supply Sensor
	7	white*				
Temperature Output Voltage	3	brown	2	1 ... 4	A	
Supply	4	green	5			9 ... 30 VDC
Ground	1 2 5	yellow, grey pink blue	Main Ground		B	Main Ground

Sensor (P6312P)	Plug Pin No.	Wire Colour	Data Logger Meteo-32		Data Logger Meteo-40	
			Plug Meteo Pin	Plug Xtend Pin	Analog Voltage	Supply Sensor
Temperature Output Voltage	7	white	2	1 ... 4	Ax	
Humidity Output Voltage	3	brown	1	1 ... 4	Ay	
Supply	4	green	5			9 ... 30 VDC
Ground	1 2 5	yellow, grey pink blue	Main Ground		Bx, By	Main Ground

Cable type for P6311P & P6312P: LiYCY 7 x 0.25mm²

* wire of standard cable, which is not necessary for measurement

Last Modification: 2012-02-16