

# IoT-enabled wireless measuring instruments

Operates on the LoRa network for wireless connectivity



Features a large display for enhanced readability, showing the current value, minimum/maximum values, and alarm indications.

3.6V / AA size, lasting from 1 year up to over 10 years.

Antenna.



Temperature and humidity sensor.

## Your measured data into COMET Cloud

Short 5-min transmit intervals with 13 adjustable intervals up to 24 hours.



Data is transmitted to the COMET Cloud for storage and analysis.



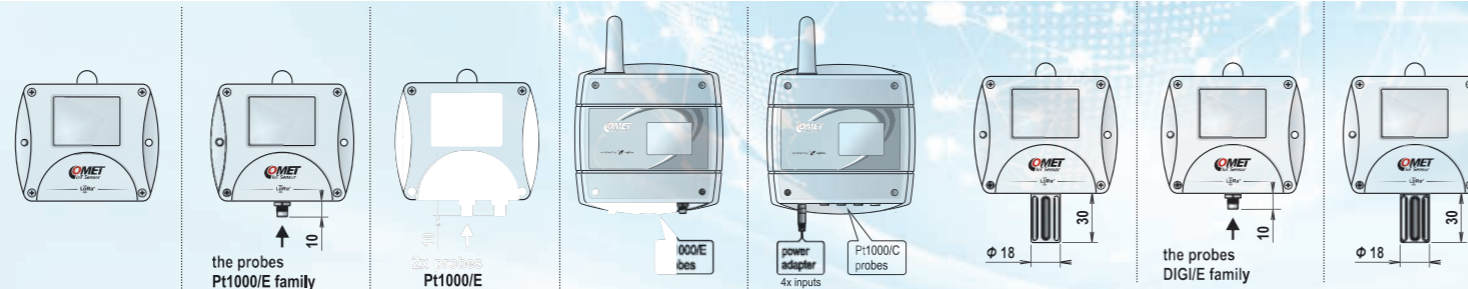
- Accurate measuring of
  - Temperature
  - Humidity
  - Barometric Pressure
- Affordable wireless communication for long distances
- Alarm indication via email
- Data storage in the COMET Cloud
- Rugged design
- Long battery life, up to 10 years
- Short and adjustable transmit intervals



# Temperature, humidity and barometric pressure wireless measurement

MEASURED VALUES			Temperature					temperature, relative humidity		temperature, relative humidity, bar. pressure	
SENSOR MODELS			W0910	W0911	W0932	W0941	W0941E	W3910	W3911	W7910	
temperature	Internal	range	-30 to +60 °C	-	-30 to +60 °C	-	-	-30 to +60 °C	according to the probe	-30 to +60 °C	
		accuracy	±0.4 °C	-	±0.4 °C	-	-	±0.4 °C		±0.4 °C	
temperature	External	range	-	-200 to +260 °C	-200 to +260 °C	-200 to +260 °C	-200 to +260 °C	-	according to the probe	-	
		accuracy*	-	±0.2 °C	±0.2 °C	±0.2 °C	±0.2 °C	±0.2 °C		-	
relative humidity		range	-							0 to 100 % RH	0 to 100 % RH
		accuracy	-							± 1.8% RH	± 1.8% RH
dew point		range	-							-60 to +60 °C	according to the probe
barometric pressure		range	-							-60 to +60 °C	600 to 1100 hPa
		accuracy	-							-60 to +60 °C	±1.3 hPa
sending interval / typical battery life			5-30min / 1-5yrs; >1-24hr / >10yrs								
class of protection of case with electronics / sensors			IP65 / -				IP20 / -		IP65 / IP40		

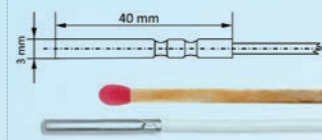
\* accuracy of device w/o probe in measuring range of -90 to 100 °C (in range +100 to +260 °C is accuracy ±0,2 % of measured value)  
 \*\* Accuracy of sensing element; from 0 to 90 %RH at 23 °C  
 \*\*\* for accuracy of dew point see graphs at device manual



## External temperature probes

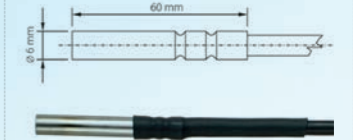
Temperature probes attached to cables are specifically designed for measuring temperatures in certain applications. These probes are available in lengths of 1, 2, 5, and 10 meters. To ensure high-precision measurements, it is not recommended to use probes that exceed 20 meters in length. Unless otherwise specified, the probes are manufactured to Class A accuracy standards.

Ultra thin temperature probe.



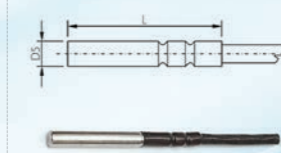
Pt1000TG3/E  
(-50°C to +200°C)

Universal, watertight temperature probe rated IP68, designed for long-term monitoring of temperature in liquids.



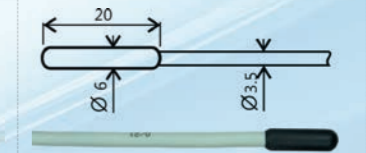
Pt1000TG68/E  
(-80°C to +200°C)

Cryogenic temperature probe designed for ultra-low temperature measurements.



Pt1000TR125/E  
(-190 to +150°C)

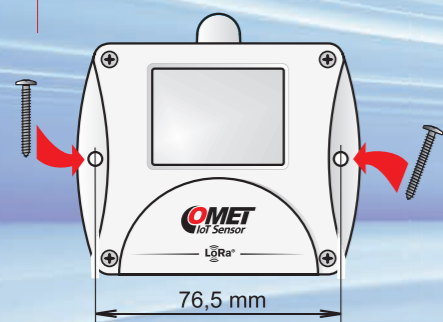
Cost-effective probe featuring a plastic housing and slow response time, rated with IP67 for protection.



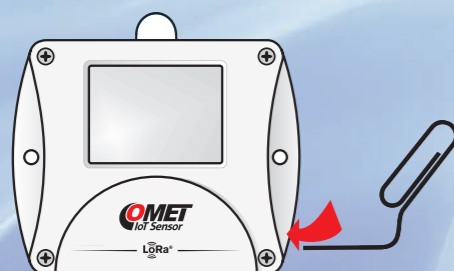
Pt1000TR160/E  
(-30°C to +80°C)

## Four steps for getting your measured data into COMET Cloud

**1. Mounting sensor**



**2. Pressing the activation button**



**3. Data is sent to COMET Cloud**



**4. Creating COMET Cloud account**

All configuration parameters of the device, including cable resistance correction for temperature probes, can be set from the cloud. The new configuration can be transferred to the device multiple times a day without delay.

LoRa Base Transceiver Station

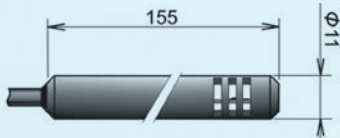




## Sensor covers for external probes

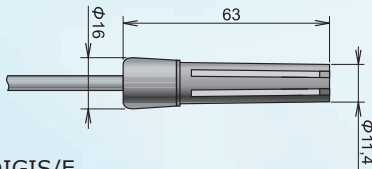
The probe can be interchanged without requiring calibration for a specific device, and this interchangeability is independent of the probe cable length. The device is designed to automatically read the current calibration data from any connected probe.

Ultra thin digital probe.



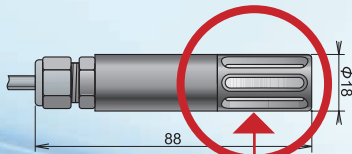
DIGIH/E  
(-10 to +60 °C; 0 to 100% RH)

Budget-friendly probe, designed without a filter mesh.




DIGIS/E  
(-10 to +60 °C; 0 to 95% RH)

Probe designed with an interchangeable protection filter.




DIGIL/E  
(-30 to +105 °C;  
0 to 100% RH)


## External temperature humidity probes



**F5300** - Teflon (PTFE) sensor cover (white color), featuring increased resistance against splashing water, a non-absorbent surface, and rust-free properties. Porous size: 25µm. Temperature range: -40°C to +125°C.



**F0000** - Sintered bronze sensor cover for moderately aggressive environments. Filtering ability: 0.025mm.



**F5200 (F5200B - black)** - Sensor cover with a stainless steel mesh filter. Filtering ability: 0.025mm.



Additional probes can be found on the Comet System website at [www.cometsystem.com](http://www.cometsystem.com)

## LoRa Base Transceiver Station

You can get started with the Internet of things within a day. Everything is pre-configured for communication with COMET Cloud. With this product family we aim to provide the most affordable LoRa solution to date without compromising quality or performance.

The gateway is weather-resistant and can operate outdoors. The range can be extended with an external antenna.



Range: 15 km (2 km in the city)  
Power supply via a 9-30 V power jack or passive PoE.