

Sensors with **WiFi interface**



Online wireless measurement and monitoring

Temperature, relative humidity, calculated humidity parameters, barometric pressure and CO₂

ATAL WiFi-enabled sensors are designed for continuous monitoring of key indoor environmental parameters, including temperature, relative humidity, barometric pressure and CO₂ concentration. Wireless communication via standard WiFi enables flexible installation without additional cabling.

Measurements are performed at a 1 second interval, while data is securely transmitted to the **OnlineSensor cloud application** with a configurable logging interval starting from 5 minutes. Measured values are displayed locally on the integrated backlit LCD and are simultaneously available remotely via the cloud platform.

The ATAL OnlineSensor cloud application enables **24/7 monitoring, data logging, analysis, alarming and reporting**. Measurement data is stored centrally, visualised in real time and available for long term trend analysis and reporting, supporting quality assurance and compliance requirements.

Compact design and wireless operation make these sensors particularly suitable for indoor applications, both for permanent installations and temporary monitoring.

Typical applications

Schools and public indoor spaces

Monitoring indoor air quality contributes to health, comfort and concentration in schools and public buildings. ATAL CO₂ sensors provide continuous insight into CO₂ concentration, temperature and relative humidity. Calculated comfort indicators such as **Humidex** offer an intuitive representation of perceived thermal comfort based on temperature and humidity.

Storage and warehouse monitoring

Continuous monitoring of temperature and humidity in storage areas is often required by standards, regulations or internal quality procedures. Typical applications include food production and storage, pharmaceutical warehousing, laboratories, catering facilities and industrial manufacturing environments.

Environmental mapping

Environmental mapping provides a detailed temperature and humidity profile of an enclosed space. By measuring at multiple fixed locations, spatial uniformity can be assessed and environmental influences can be identified, helping to verify correct operating and storage conditions.

Alarm indication

Each measurement channel supports independently configurable upper and lower alarm limits. Alarm conditions are indicated locally via display, LED or acoustic signal and are forwarded to the Hitma OnlineSensor cloud platform. Alarm notifications can be sent automatically via email.

Power supply

The device is equipped with a USB Type C interface for power supply and configuration via a computer. Power can be supplied from a mains power adapter, power bank or solar panel, providing flexible operation in various installation scenarios.

ATRU-AC04:
Switching power supply, **5 V DC**, Standard **EU plug**, optional **UK or US plug**



Status LED:

For device and alarm indication

WiFi antenna

Backlit LCD display
for clear local read out

Four Pt1000 temperature probe inputs, recommended cable length up to 20 m

Internal memory
for data buffering during WiFi connection loss

USB C power interface,
5.0 to 5.4 V DC

Interchangeable temperature and relative humidity sensor for easy service and calibration

Connection for external temperature / humidity probe, cable length up to 15 m

OnlineSensor

OnlineSensor is a cloud based data management platform **for 24/7 monitoring, logging, analysis, alarming and reporting** of environmental measurement data. Measurement data is securely stored online and can be accessed at any time via a standard web browser on desktop, tablet or mobile devices. Each user accesses the platform through a password protected account. Sensors can be easily added and organised into logical structures such as locations, sensor groups and measurement points. User roles and access rights can be defined individually, allowing controlled access for viewing and administration. The platform supports continuous real time visualisation as well as long term data storage for trend analysis and reporting. This enables users to gain clear insight into indoor climate quality, building performance or energy efficiency across individual rooms or complete buildings.

Key functionalities OnlineSensor



- **24/7 real time access** to measurement data
- **Automated data logging and long term storage**
- **Configurable alarm notifications** via email for threshold exceedance or system faults
- **Flexible reporting tools**, including minimum, maximum and average values per day
- **Export of measurement data** to CSV or Excel format
- **Centralised management** of devices, measurement points and users
- **Geographical overview of locations** via map visualisation
- **Enrichment of measurement data** through external weather data integration

The OnlineSensor platform supports a wide range of applications, including offices, schools, childcare facilities, warehouses, museums, cold storage and transport environments.

External temperature probes

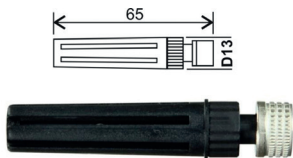
Cable mounted temperature probes are designed for accurate temperature measurement in specific applications. Probes are available with cable lengths of 1, 2, 5 and 10 meters and are manufactured with Class A accuracy, unless stated otherwise.

Depending on the application, the following probe types are available:

- Fast response air probe
- For rapid and accurate air temperature measurement. Not protected against moisture.
- Strap on probe for pipes and flat surfaces
- Suitable for surface temperature measurement on pipes and flat surfaces.
- Protection class IP65.
- Brass surface probe
- Designed for surface temperature measurement. Not resistant to moisture.
- Waterproof immersion probe
- Fully watertight IP68 probe for long term temperature monitoring in liquids.

TEP-101B

(-30 °C to +80 °C)
Fast accurate air probe with fast response time without protection against moisture.



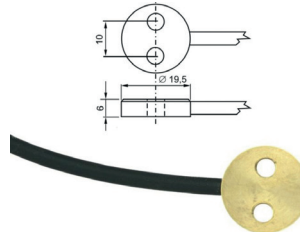
TEP-104B

(-30 °C to +130 °C)
Strap-on probe for pipe mounting and flat surfaces. Class of protection - IP65.



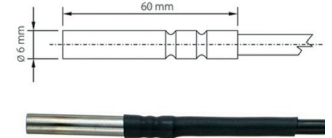
TEP-103B

(-30 °C to +200 °C)
Brass probe for surface temperature measurements. Probe is not resistant to moisture.



TEP-102B-WP

(-80° C to +200 °C)
Universal temperature watertight probe with IP68 for long-term monitoring of temperature in the liquid.



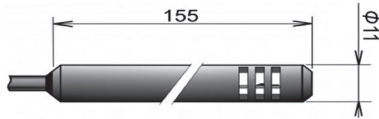
Product codes are completed with cable length (e.g. -1M, -2M, -5M, -10M), depending on application requirements.

External temperature and humidity probes

External temperature and humidity probes

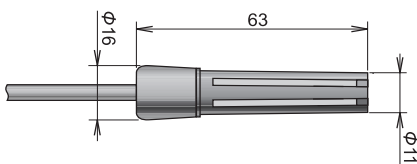
The probe is interchangeable and supplied with a calibration certificate. The cable length should not exceed 30 metres. The accuracy of the external sensing element is $\pm 1.8\%$ RH.

Ultra thin digital probe.



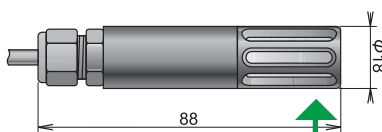
TRHD-104E
(-10 to +60 °C; 0 to 100 % RH)

Low cost probe without filter mesh.



TRHD-103E
(-10 to +60 °C; 0 to 95 % RH)

Probe with interchangeable protection filter.

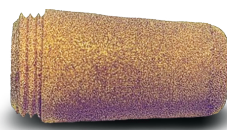


TRHD-102E
(-30 to +105 °C; 0 to 100 % RH)

Sensor covers for external probes



ATS-AC12P - Teflon (PTFE) sensor cover (white colour), with increased resistance against splashing water, non-absorbent surface, does not rust. Porous size 25 μ m. Temperature range -40 °C to +125 °C.



ATXV-AC19 - Sintered bronze sensor cover for moderate aggressive environments. Filtering ability 0.025 mm.



ATS-AC12B - sensor cover with filter from stainless steel mesh, suitable for moderately dusty environment. Filtering ability 0.025 mm.

External probe accuracy of sensing element is $\pm 1.8\%$ RH

Measured values			Temperature			
Sensor model			AWP-T	AWP-T1P	AWP-T4P	AWP-TR
Temperature	Internal	Range	-			-30 to +60 °C
		Accuracy	-			± 0.4 °C
	External	Range	According to the probe	-90 to +260 °C	-90 to +260 °C	-
		Accuracy*	According to the probe	± 0.2 °C	± 0.2 °C	-
Relative humidity		Range	According to the probe	-		0 to 95 % RH
		Accuracy**	According to the probe	-		± 1.8 % RH
Dew point		Accuracy***	According to the probe	-		± 1,5 °C
CO2		Range****	-			
		Accuracy	-			
Atm. pressure		Range	-			
		Accuracy	-			
Power supply		Connector USB-C	5.0 to 5.4 VDC; consumption 300 mA (max. 500 mA)			
Radio section			Frequency: 2.4 GHz; max. transmit power: 18 dBm; standard: 802.11 b/g/n; contain CC3220MODSF with FFC ID: Z64-CC3220MOD			
IP protection class						

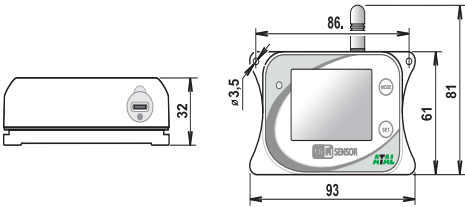
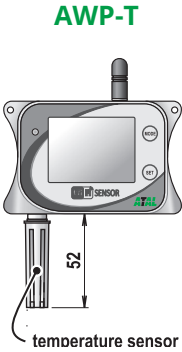
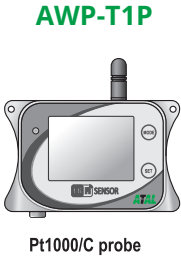
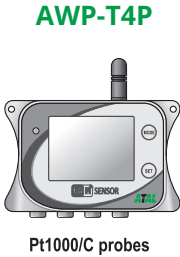
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Accuracy of device w/o probe in measuring range of -90 to 100°C (in range +100 to +260°C is accuracy of ±0,2 % of measured value)

From 0 to 90% RH at 23°C

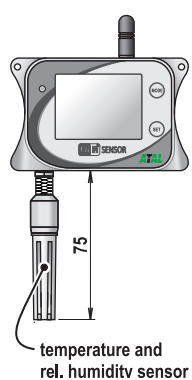
At ambient temperature T<25°C and RH> 30%

Optional measuring range up to 10000 ppm

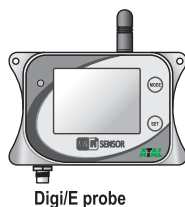


Temperature, relative humidity,		Temperature, relative humidity, atm. pressure	Temperature, relative humidity, CO ₂ atm. pressure	CO ₂
AWP-TR1D	AWP-TR2D	AWP-TRP	AWP-TRCP	AWP-C
-	-	-30 to +60 °C	-30 to +60 °C	-
-	-	±0.4°C	± 0.4 °C	-
According to the probe		-		
According to the probe		-		
According to the probe		0 to 95 % RH	0 to 95 % RH	-
According to the probe		± 1.8 % RH	±1.8 % RH	-
According to the probe		± 1,5 °C	± 1,5 °C	-
			0 to 5000 ppm	0 to 5000 ppm
			± (50 ppm + 3 % MV)	± (50 ppm + 3 % MV)
		600 to 1100 hPa	600 to 1100 hPa	-
		± 1,3 hPa	± 1,3 hPa	-
5.0 to 5.4 VDC; consumption 300 mA (max. 500 mA)				
Frequency: 2.4 GHz; max. transmit power: 18 dBm; standard: 802.11 b/g/n; contain CC3220MODSF with FFC ID: Z64-CC3220MOD				
IP30				

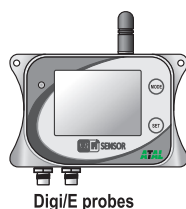
AWP-TR



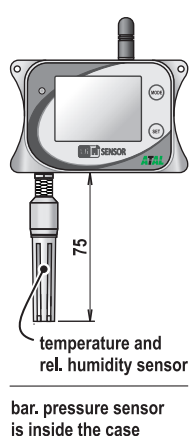
AWP-TR1D



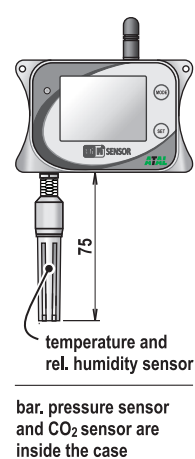
AWP-TR2D



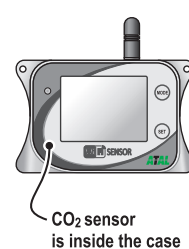
AWP-TRP



AWP-TRCP



AWP-C





Your distributor

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