

# Temperature & Humidity Transmitter

## AHT-5 Series

**Aecl**<sup>®</sup>

### ■ Features

- Rapid response time, high stability, high accuracy
- Microprocessor technology allows compact design, power saving and anti-interference
- Streamline shape and elegant design
- Complete product line and multifunction for various applications
- Switchable RS485(Wired) and LoRa (Wireless) interface for flexible and easy installation



Outside air



Wall-mount



Separated



Duct-mount

## ■ Specifications

Technical data	
Signal output	4~20mA 0~10V/0~5V/1~5V RS485 RS485/LoRa (Peer to Peer), radio frequency band: 862 ~ 932 MHz <sup>(1)</sup>
Installation	Wall-mount Duct-mount Outside air <sup>(2)</sup> Separated
Loading resistance	Current output: $R_L < 500\Omega$ at 24V DC Voltage output: $R_L > 2.5K\Omega$ at 24V DC
Sensing element	CMOSens sensor
Long-term Drift	Temperature: $< 0.03^\circ\text{C}/\text{yr}$ Humidity: $< 0.25\% \text{RH}/\text{yr}$
Response time	$< 10$ sec. (20% to 80% of range)
Protection	Wall-mount: IP30 (No protection from liquids) Duct-mount / Outside air / Separated: IP65
LCD display	Optional
Power supply	20 ~ 36V DC (output: 0~10V/0~5V/1~5V) 12 ~ 36V DC (output: 4~20 mA, RS485/LoRa) AC 24V (50/60Hz)
Dimensions (mm)	Wall-mount: 113.57(H)x80.00(W)x28.79(D) Duct-mount / Outside air / Separated: 137.5(H)x99.0(W)x40.4(D) Sensing probe: Duct-mount $\varnothing 15 \times 300.0$ , Outside air $\varnothing 15 \times 60.0$ Cable length of separated type: 3360
Case material	Fireproof ABS
Operating conditions	Temperature: $-20 \sim 60^\circ\text{C}$ ( $-4 \sim 140^\circ\text{F}$ ) Humidity: 0 ~ 95%RH (non-condensing)
Certifications	CE and FCC

**Note:**

- (1) The frequency channels will be differed by country and this frequency can be configured accordingly from 862 to 932Hz.
- (2) For the application where static electricity is easily formed or with lots of cotton dust, please choose outside air type.

Model	Measurement	Measurement range		Accuracy (at 25°C / 55%RH)
		Current / Voltage output	RS485 / LoRa output	
AHT-501	Temperature	T : 0~100°C, 0~50°C, -50~50°C	T : -40°C~100°C	A : T:±0.2°C
AHT-502	Humidity	H : 0~100%RH	H : 0~100%RH	A : ±2%RH B : ±3%RH
AHT-503	Temperature & Humidity	T : 0~100°C, 0~50°C, -50~50°C H : 0~100%RH	T : -40°C~100°C H : 0~100%RH	A : T:±0.2°C; H:±2%RH B : T:±0.3°C; H:±3%RH
AHT-504	Humidity & Dew point	H : 0~100%RH D.P. : 0~25°C, 0~50°C, -50~50°C	H : 0~100%RH D.P. : -40~50°C	A : H:±2%RH; D.P.:±0.76°C
AHT-505	Temperature & Dew point	T : 0~100°C, 0~50°C, 50~50°C D.P. : 0~25°C, 0~50°C, -50~50°C	T : -40°C~100°C D.P. : -40~50°C	A : T:±0.2°C; D.P.:±0.76°C
AHT-506	Temperature & Enthalpy	T : 0~100°C, 0~50°C, -50~50°C E : 0~100 BTU 0~50 BTU	T : -40°C~100°C E : 0~100 BTU	A : T:±0.2°C; E:±0.684 BTU
AHT-507	Temperature & Wet-bulb temperature	T : 0~100°C, 0~50°C, -50~50°C W : -6.6~49.0°C	T : -40°C~100°C W : -6.6~49.0°C	A : T:±0.2°C; W: ±0.486°C

## ■ Ordering information

**AHT-□□□□-□M**

Code 1	Function
501	Temperature
502	Humidity
503	Temperature & Humidity
504	Humidity & Dew point
505	Temperature & Dew point
506	Temperature & Enthalpy
507	Temperature & Wet-bulb temperature

Code 2	Installation
W	Wall-mount
D	Duct-mount
V	Outside air
S	Separated

Code 3	Signal output
A	4-20mA
2	0-10V/0-5V/1-5V
4	RS485
6	RS485 / LoRa

Code 4	Display
X	No
D	Yes

Code 5	Accuracy*
A	High
B	Low

\*For details, please refer to specifications.