

# T&H Air Pressure Sensor

Model ES-A227A



## Introduction

ES-A227A Temperature, Humidity, and Pressure Sensor (Outdoor Protective Type) is an instrument for monitoring meteorological parameters in multiple fields. The device innovatively integrates the three standard meteorological parameters—atmospheric temperature, humidity, and atmospheric pressure—through a highly integrated structure, enabling 24-hour continuous online monitoring of outdoor meteorological parameters. It outputs all three parameters to the user simultaneously via a digital communication interface.

## Main features

- Integrated design
- Supports RS485 protocol
- Low power consumption
- Modular design, no moving parts
- Easy installation
- Supports simultaneous monitoring of multiple meteorological and environmental parameters

## Compliance

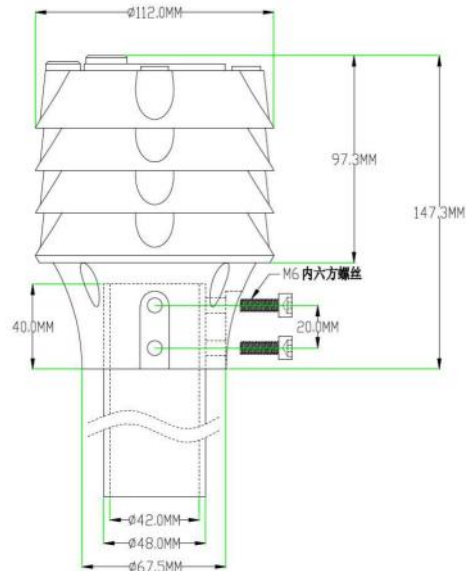
The electromagnetic compatibility in accordance with the following applicable directives:

- EMC 2014/30/EU  
Electromagnetic Compatibility
- EMC 2014/35/EU  
Electromagnetic Compatibility

## Application

- Meteorological Monitoring
- Micro-environmental Monitoring
- Grid-based Environmental Monitoring
- Agricultural Meteorological Monitoring
- Traffic Meteorological Monitoring
- Photovoltaic Environmental Monitoring
- Wind Power Generation Meteorological Monitoring

## Dimension



Unit:mm

## Specification

Parameters	Range	Accuracy	Resolution
Temperature	-40°C~+85°C	$\leq \pm 0.3^{\circ}\text{C}$ (@25°C typical)	0.01°C
Humidity	0~100%RH	$\leq \pm 3\%RH$ (@25°C, 10%-80%RH, typical)	0.01%RH
Atmospheric pressure	500~1100Kpa	$\leq 0.3hPa$ (@25°C, 950hPa-1050hPa)	0.1hPa
Work environment	- 40 °C - 80 °C		
Signal output	RS485 output (standard Modbus RTU protocol),SDI-12 customized		
Power supply	DC9-30V		
Protection level	IP65		
Fixing method	The standard product uses a sleeve-type fixing method; see the product dimension drawing. (Flange fixing or bent plate fixing methods are optional.)		
Fixing bracket	No standard product is available; 1.5-meter and 1.8-meter brackets are optional (sold separately).		
Standard configuration	3-meter cable (10-meter communication cable is optional).		
Remarks	The sensor integrating atmospheric temperature, humidity, and air pressure parameters is installed in a three-layer outdoor radiation shield. The radiation shield uses a special ratio of PC and fiber, and the internal heat insulation layer minimizes the impact of solar radiation. With no moving parts, the accuracy of long-term measurement data is guaranteed.		

## Order guide

ES-A227A	Air temperature humidity pressure sensor		
	CODE	Functions	
	1	Temperature+humidity	
	2	Temperature+humidity+air pressure	
		CODE	Signal output
		RS	RS485
		SD	SDI-12
ES-A227A	1	RS	Order example