

# Air Quality Sensor

Model ES-A333



## Main features

- Maintenance-free, long service life
- ASA engineering plastic material
- Output 485, Modbus, Expandable functions: GPS
- 32-bit high speed processing chip
- Modular, no moving parts
- Support extended parameter measurement

## Compliance

The electromagnetic compatibility in accordance with the following applicable directives:

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

## Introduction

ES-A333 nine-parameter air quality transmitter is an instrument developed by SenTec to monitor nine outdoor parameters: PM2.5, PM10, ambient temperature, relative humidity, air pressure, illuminance, noise, CO2, and dew point temperature, in response to the current trends in smart city and smart environmental monitoring. The product boasts an elegant appearance and high integration.

## Application

ES-A333 air quality transmitter (outdoor type) is suitable for use in urban grid-based environmental monitoring and control, smart streetlights, scenic area environmental monitoring, factories or mines, construction sites (construction site dust monitoring), urban roads, highways, public places and other places involving air quality monitoring.

## Dimension

Unit:mm



## Specification

PARAMETERS	RANGE	RESOLUTION	ACCURACY
PM2.5	0-1000ug/m <sup>3</sup>	1ug/m <sup>3</sup>	±(10±10%) (<500ug/m <sup>3</sup> )
PM10	0-1000ug/m <sup>3</sup>	1ug/m <sup>3</sup>	±(10±10%) (<500ug/m <sup>3</sup> )
Temperature	-40-85°C	0.1°C	±0.3°C (@25°C, typical)
Humidity	0-100%RH	0.1%RH	±3%RH (10-80%RH) without condensation
Air Pressure	300-1100hpa	0.1hpa	±±0.3hPa (@25°C, 950hPa-1050hPa) Reading 3% or 1% F.S
Light Intensity	0-200KLUX	10LUX	±1.5dB
Noise	30-130dB	0.1dB	≤0.5°C (0°C-30°C, 40%RH~100%RH)
Dew Point Temperature	0-40°C	0.1°C	>1°C (<0°C, <40%RH)
CO2	0-5000PPM	1PPM	±70 PPM ± 3% of the reading
Power supply	DC12V~24V		
Power consumption	<1W (12V)		
Signal output	Default 485 output, MODBUS RTU protocol. Expandable functions: GPS positioning.		
Operating environment	Temperature: -40~85°C; Humidity: 5~100%RH (non-condensing).		
Installation method	Sleeve fixing, flange adapter optional.		
Housing material	ASA material.		
Protection rating	IP65		

## Order guide

ES-A333	Air quality sensor		
	<b>CODE</b>	Parameters	
	<b>A</b>	Temperature	
	<b>B</b>	Humidity	
	<b>C</b>	PM2.5/PM10	
	<b>D</b>	Air Pressure	
	<b>E</b>	Light Intensity	
	<b>F</b>	Noise	
	<b>G</b>	Dew Point Temperature	
	<b>H</b>	CO2	
		<b>CODE</b>	Output
	<b>1</b>	RS485	
ES-A333	ABC	1	Order example