PRODUCT OVERVIEW

Solar shield air and gas sensor

Model ES-A227

Main features

- Integrated design, multi-parameter measurement
- Key components use imported devices, stable and reliable
- High-strength ABS material, rainproof, snow-proof, radiation-proof, anti-aging, long service life
- IP68 protection level PG7 locking head
- Anti-interference modules to prevent electromagnetic interference

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-A227 integrated shutter solar shield air and gas sensor can be widely used in environmental detection, supporting monitoring of temperature and humidity, atmospheric pressure, light, noise, CO2, PM2.5 and PM10, TVOC, formaldehyde (CH2O), ozone (O3), oxygen (O2), hydrogen sulfide (H2S), methane (CH4), carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), hydrogen (H2), ammonia (NH3) and other parameters. The sensor is installed in the shutter box, and the shutter box shell can protect the internal meteorological sensor from strong wind, rain and snow. At the same time, the whole machine is designed in the shape of white shutters to avoid the influence of solar radiation energy to the greatest extent, ensuring that the air inside and outside the equipment can circulate and interact with each other, thereby ensuring the accuracy and stability of the measurement data, greatly extending the service life of meteorological instruments, and reducing maintenance costs. It is an indispensable equipment in meteorological observation. The equipment adopts the standard MODBUS-RTU communication protocol and RS485 signal output, and the maximum communication distance can reach 2000 meters.

Application

They are widely used in many fields, including meteorological monitoring, agricultural management and environmental monitoring.

Dimension

Unit:mm

Note: Different functions have different heights, please contact sales for details

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Specification

Parameters	Range	Resolution	Accuracy
Temperature	-40°C~+120°C	0.1°C	±0.5°C(25°C)
Humidity	0~100%RH	0.1%RH	±3%RH(60%RH,25°C)
Atmospheric pressure	0~120Kpa	0.1Kpa	±0.15Kpa@25°C75Kpa
Illuminance	0-200,000 Lux	1Lux	±7%(25°C)
Noise	30-130db	±3%F.S	0.3dB
PM2.5 / PM10/PM1.0	0~1000ug/m3	±10%	±10%C(25°C)
TSP/PM100	0~20000ug/m3	±3%F.S	1ug/m4
TVOC	0~60000ppb	1ppb	±8%FS±125ppb
CO2	0~5000ppm	1ppm	±(40ppm+ 3%F·S)
Formaldehyde	0~5ppm	0.01ppm	±5%FS
Ozone	0~10ppm	0.01ppm	±6%FS
O2	0~25%Vol	0.1%Vol	±3%FS
H2S	0~100ppm	1ppm	±3%FS
CH4	0~100%LEL	1%LEL	±5%FS
CO	0~1000ppm	1ppm	±3%FS
NO2	0~20ppm	0.1ppm	±3%FS
SO2	0~20ppm	0.1ppm	±3%FS
H2	0~1000ppm	1ppm	±3%FS
NH3	0~100ppm	1ppm	±2%FS
Power supply	DC 10-30V（default）		
Power consumption	0.8W		
Work environment	Temperature - 10 °C - 55 °C; humidity 0 ~ 95% RH, non condensing		
Signal output	RS485 output (standard Modbus RTU protocol), analoge output, RJ45,4G, Lora, WIFI		
Product material	ABS		
Installation method	Bracket installation		

Order guide

ES-A227	Air and gas sensor		
	CODE	Functions	
	XXX..	Temperature, Humidity, PM2.5, PM10, Atmospheric pressure, Illuminance, Noise, TVOC, CO2, Formaldehyde, O3, CO, CH4, O2, SO2, NO2, H2, H2S, NH3 etc *(List the functions when order)*	
		CODE	Signal output
		XX	RS485, analoge output, RJ45,4G, Lora, WIFI
ES-A227	THPM	RS	Order example

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