Temperature &Humidity sensor

Model ES-A220

Introduction

ES-A220 temperature and humidity sensor is a wall-mounted high-end housing with a protection level of IP65, rain and snow proof, good air permeability, and a display function that can display the current temperature and humidity in real time. The circuit uses an industrial-grade microprocessor chip imported from the United States and an imported high-precision temperature sensor to ensure excellent product reliability, high precision, and good interchangeability. This product uses a granular sintered probe sheath, the probe is directly connected to the housing, a variety of probes are optional, and the extended probe line can be extended to 30 meters, with a default of 0.6 meters.
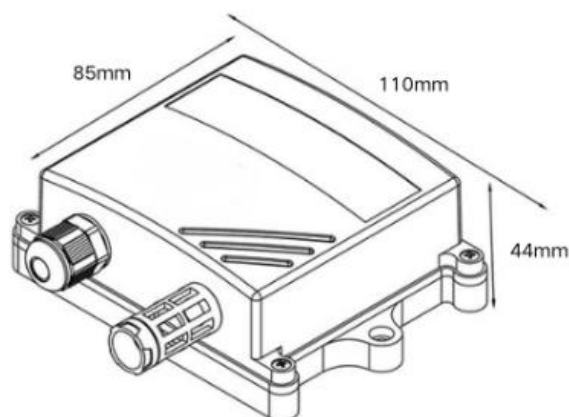
It supports multiple signal outputs of RS485/4-20mA/0-10V/0-5V, the maximum communication distance of RS485 is 2000 meters, standard modbus protocol, and supports secondary development.

Application

It is used in agricultural greenhouses, machine room warehouses, factory workshops, underground pipe galleries, industrial automation, logistics and transportation, construction and real estate etc.

Dimension

Unit:mm

Main features

- High-precision imported chip
- Supports LED and OLED display
- IP65 waterproof protection level
- IP68 protection level PG7 locking head
- The circuit board is treated with moisture-proof, salt spray-proof, and mildew-proof
- Anti-interference modules are added to prevent electromagnetic interference
- Supports secondary development and provides routines for free

Compliance

The electromagnetic compatibility in accordance with the following applicable directives:
EMC 2014/30/EU
Electromagnetic Compatibility
EMC 2014/35/EU
Electromagnetic Compatibility

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Specification

DC power supply (default)		10~30V DC	
Power consumption	RS485 output	0.1W, 0.4W	
	Voltage output	1.2W	
	Current output	1.2W	
Range	humidity	0%RH-100%RH	
	temperature	-40°C~+120°C, default -40°C~+80°C	
Accuracy	humidity	±3% RH (default), ±2% RH (5% RH~95% RH, 25°C)	
	temperature	±0.5°C (default), ±0.4°C (25°C)	
Resolution	humidity	0.1%RH	
	temperature	0.1°C	
Long-term stability	humidity	≤1%RH/y	
	temperature	≤0.1°C/y	
Response time	humidity	≤8s (1m/s wind speed)	
	temperature	≤25s (1m/s wind speed)	
Signal output		4-20mA/0-10V/0-5V/RS485 output (standard Modbus-RTU protocol)	
Load Capacity		Voltage output ≤250Ω; Current output ≤600Ω	
Transmitter circuit operating		-40°C~+80°C, 0%RH~95%RH (non-condensing)	
Refresh Time		1s	
Installation		Wall-mounted or pipe fixed	
Allowed max air flow rate		16m/s (pipe fixed)	
IP grade		IP65	

Order guide

ES-A220	temperature and humidity sensor			
	CODE	Type		
	A	Wall fixed without display		
	B	Wall fixed LED/OLED display		
	C	Pipe fixed without display		
	D	Pipe fixed LED/OLED display		
		CODE	Signal output	
		1	4-20mA	
		2	0-10V	
		3	0-5V	
		4	RS485	
ES-A220	A	4	Order example	

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