Atmospheric pressure sensor

Model ES-A221

Main features

- Imported sensor, high precision, high stability
- Supports simultaneous measurement of temperature and atmospheric pressure
- Wall-mounted waterproof shell, high protection level, can be used in outdoor rain and snow environment
- Unique compensation algorithm, high repeatability
- Wide 0-120Kpa pressure range

Compliance

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

Introduction

ES-A221 atmospheric pressure sensor adopts imported high-precision measurement unit, the device has built-in high-precision temperature compensation, high stability, small drift, and high repeatability; the wall-mounted housing can be easily fixed on the wall. It is suitable for small weather stations, altimeters, agricultural greenhouses, archives and other places that require atmospheric pressure monitoring and temperature measurement.
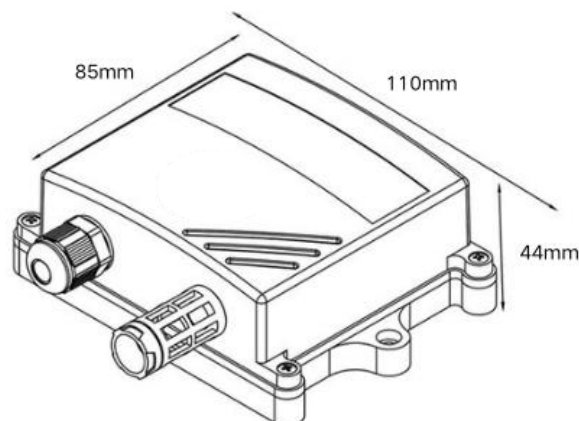
It can integrates temperature and humidity sensors into one unit, and the measurement data is more comprehensive. It support 4~20mA,0~5V/0~10V,RS485 outputs, 485 signals (standard Modbus-RTU protocol), can communicate up to 2000 meters, and supports secondary development.

Application

It is suitable for small weather stations, altimeters, agricultural greenhouses, archives and other places where atmospheric pressure monitoring and temperature measurement are required.

Dimension

Unit:mm

85mm   110mm   44mm

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Specification

Measuring medium	Air pressure	
DC power supply (default)	10~30V DC	
Measuring range	Air pressure	0~120Kpa
	Air temperature	-40℃~80℃（can be customized)
Accuracy	Air pressure	±0.15Kpa@25℃ 75Kpa
	Air temperature	±0.5℃（25℃）(default)
Long-term stability	Air pressure	-0.1Kpa/year
	Air temperature	≤0.1℃/year
Circuit operating temperature	-20℃~+60℃，0%RH~80%RH	
Response time	≤1S	
Output signal	4~20mA,0~5V/0~10V,RS485(Modbus）	
Communication	Baud rate: 2400, 4800 (default), 9600 Data bit length: 8 bits Parity check mode: None Stop bit length: 1 bit Default ModBus communication address: 1 Supported function code: 03	
Load capacity	Voltage output: output resistance≤250Ω, current output:≤600Ω	
Power consumption	≤0.5W (RS485 type), 1.2W (analog output type)	
IP level	IP65	

Order guide

ES-A221	Air pressure sensor			
	CODE	Function		
	A	Air pressure		
	B	Air pressure and temperature		
			CODE	Signal output
			1	4-20mA
			2	0-10V
			3	0-5V
			4	RS485
ES-A221	A		4	Order example