Air and gas sensor

Model ES-A240U

Introduction

ES-A240U air and gas sensors use imported digital temperature and humidity sensors, which are finely calibrated during production, and the calibration data is stored in the internal memory.

This sensor has the characteristics of digital output and is completely interchangeable. It does not require complex verification and calibration processes, and has outstanding performance in measurement accuracy, linearity, repeatability, interchangeability, and consistency.

ES-A240U wall-mounted multi-element transmitter can be widely used in various environmental monitoring, and can monitor temperature and humidity, atmospheric pressure, PM, CO_2, TVOC, Noise, Formaldehyde and other factors.
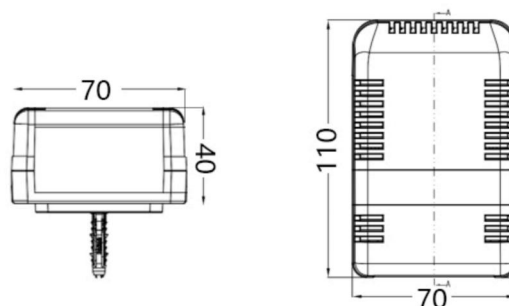
It also has a variety of signal output methods, which is convenient for use in various environments. It is safe and reliable, small design in appearance, easy to install, and durable.

Main features

- High-precision imported chip
- Supports LED display
- Multi-parameter integrated measurement, customized according to needs
- Multiple communication methods
- Anti-interference modules are added to prevent electromagnetic interference
- Supports secondary development and provides routines for free
- Small design, easy to install

Application

It is widely used in building automation, telecommunication rooms, paper making, warehousing and logistics, shopping malls, hotels, cinemas, railway stations, museums, theaters, agricultural greenhouses, hospitals, meteorology, clean workshops and other fields that need to measure air quality.

Compliance

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

Dimension

Unit:mm

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Specification

PARAMETERS	RANGE	REPEATABILITY	STABILITY	ACCURACY
Temperature	-40°C~+80°C	±0.1°C	≤0.04°C/Year	±0.5°C(25°C)
Humidity	0~100%RH	±0.1% RH	<0.5%RH/Year	±3%RH(10~90%)
Air pressure	0-120Kpa	≤1%F.S	≤2%F.S	±0.15Kpa
PM2.5/PM10/PM1.0	0~1000ug/m3	≤1%F.S	≤2%F.S	±3% F.S (25℃)
CO2	0~5000pp/10000ppm	≤1%F.S	≤2%F.S	±（50ppm+3%F·S
TVOC	0~5000ppb	≤1%F.S	≤2%F.S	±3% F.S (25℃)
Formaldehyde	0~5000ppb	≤1%F.S	≤2%F.S	±3% F.S (25℃)
Noise	30~130dB	≤1%F.S	≤2%F.S	±5dB
Power supply	DC 10-30V（default)			
Power consumption	≤1.2W (12V DC, 25°C)			
Average current	＜85mA			
Transmitter circuit operating	-40°C~+60°C, 0%RH~95%RH non-condensing			
Signal output	RS485, 0~2V, 0~2.5V, 0~10V, 4~20mA			
Response time	≤120S			
Work environment	Temperature - 30 °C - 50 °C; humidity 0 ~ 95% RH, non condensing			
Installation method	Screw fixed			

Order guide

ES-A240U	Air and gas sensor			
	CODE	Functions		
	T	Temperature		
	H	Humidity		
	A	Air pressure		
	P	PM2.5/PM10/PM1.0		
	C	CO2		
	…	… (more customized according to datasheet)		
			CODE	Signal output
			1	4-20mA
			2	0-10V
			3	0-5V
			4	RS485
ES-A240U	THA		4	Order example