

Multi-plate Solar Radiation Shield

Product model: FST100-2201

Firstrate

The FST100-2201 multi-function integrated sensor with louver structure is a special sensor designed for environmental monitoring during meteorological or agricultural production. The built-in core sensors are all imported devices. The instrument can continuously monitor one or more environmental parameters such as carbon dioxide gas concentration, light intensity and ambient temperature and humidity, and each parameter value is converted into MODBUS-RTU standard electrical signal and transmitted to related equipment.

◆ Features

- ✓ Integral blind box structure
- ✓ Multiple monitoring options
- ✓ Built-in high-performance microprocessor
- ✓ High sensitivity and easy installation
- ✓ Superior performance and good long-term stability



◆ Scope of application

- ◇ Widely used in building automation
- ◇ Climate and HVAC signal acquisition
- ◇ Greenhouses and pharmaceutical and chemical industries

◆ Technical parameter

	Temperature and humidity	Light intensity	carbon dioxide
Range	Temperature: -40~80°C	0~65535Lux	0~2000ppm
	Humidity: 0%RH~100%RH	0~200,000 Lux	0~5000ppm
Signal output	RS485 output (Modbus protocol)	RS485 output (Modbus protocol)	RS485 output (Modbus protocol)
Operating voltage	10~30VDC	10~30VDC	10~30VDC
Precision	Temperature: $\pm 0.5^{\circ}\text{C}$ (25°C)	$\pm 7\%$ (25°C)	$\pm 50\text{ppm}+3\%\text{FS}$ (25C)
	Humidity: $\pm 3\%\text{RH}$ (5%RH~95%RH, 25°C)		
Long-term stability	Temperature: $\leq 0.1\text{FS}/\text{year}$	$\leq 0.5\%/ \text{year}$	$\leq 30\text{ppm}/\text{year}$
	Humidity: $\leq 0.1\%\text{RH}/\text{year}$		
Response time	Temperature: < 15/sec (1m/s wind speed)	0.1 seconds	< 10/sec (1m/s wind speed)
Operating temperature	-20~60°C, 0%RH~80%RH	-20~60°C, 0%RH~80%RH	-20~60°C, 0%RH~80%RH

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	Atmospheric pressure	PM2.5/PM10
Range	0~120Kpa	0~500ug/m ³ ,0~1000ug/m ³
Power consumption	≤0.5W	0.8W
Signal output	RS485 output (Modbus protocol)	RS485 output (Modbus protocol)
Operating voltage	10~30VDC	10~30VDC
	Atmospheric pressure	PM2.5/PM10
Precision	±1.5Kpa(25°C)	< ±10% of reading (25°C)
Long-term stability	0.1Kpa / year	
Response time	≤1 second	≤90 seconds
Operating temperature	-20~60°C, 0%RH~80%RH	-20~60°C, 0%RH~80%RH
Resolution		1ug/m
Preheat time		2min

◆ Product appearance and electrical connection

