CDG-14A Illuminance Sensor

For weather automation applications

Features

- High sensitivity
- Applicable to various harsh environments
- High precision, wide measuring range
- Compact size
- Easy installation
- The response speed can reach the level of microseconds, and can quickly respond to changes in light intensity
- It can adapt to the measurement and control requirements under various lighting conditions

CDG-14A Illuminance Sensor is very sensitivity and can detect weak light, has a wide measuring range, high accuracy, good waterproof performance, easy to use, easy to install. It's suitable for most applications, especially in agricultural greenhouses, urban lighting and other places.

Typical installation locations

- Top of building
- Meteorological monitoring
- Open areas
- Outdoor locations

Design structure

The illuminance sensor is a sensor that converts the size of the illuminance into an electrical signal, and the unit of measurement of its output value is usually lux. It works by converting the received light intensity into the corresponding electrical signal through a specific photoelectric element for measurement and monitoring.
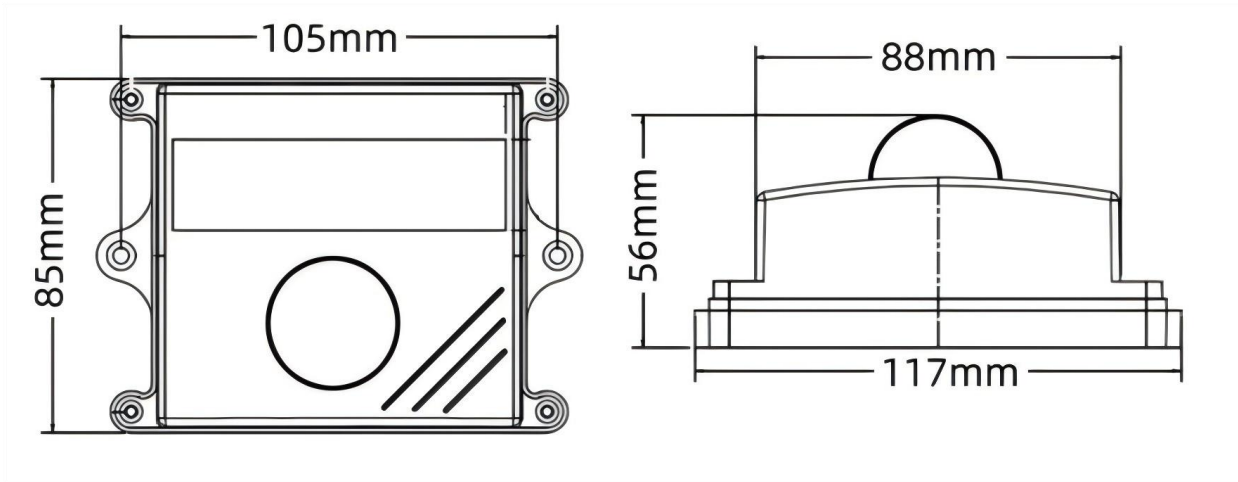
Easy installation

Open without shelter: It should be installed in an open area without shelter from tall buildings, trees, etc., to ensure that it can fully receive solar radiation. Sensors usually need to be mounted horizontally to ensure measurement accuracy. You can calibrate using a level to ensure that the sensor is mounted on a level surface。

Reliable operation

The illuminance sensor adopts advanced measurement technology, which can accurately measure the intensity of illuminance. The sensor has high sensitivity, low noise and good linearity, which can maintain stable performance under different environmental conditions.It has good anti-electromagnetic interference performance and can work normally in complex electromagnetic environment. The sensor adopts shielding design and anti-interference circuit, which can effectively reduce the influence of electromagnetic interference on the measurement result.

Dimensions & display

CDG-14A connector dimension

Multimode display(LED & LCD)

光照度传感器
Illuminance Sensor

12340 Lux

Illumination
12340 Lux

Installing(wall)

光照度传感器
Illuminance Sensor

Wall screws fixed position

Technical data

Measurement performance, models CDG-14A

Item	Specification	
Range	0-2000lux,0-20klux,0-200klux optional	
Spectral range	380-780nm	
Supply	5VDC,12-24VDC	
Output	4-20mA,0-5V,0-10V	RS485
Accuracy	<±5%FS	<±4%FS
Response time	1s	
Temperature effect	±0.2%/℃	
Repeatability	<1%FS	
Display	LCD optional(ABS housing)	
Operating temperature	-40℃-+75℃	
Weight(unpacked)	170g	
Shell material	ABS,metal shell can be customized	

Model number	Type	Output	Special features
CDF-10A	Wind speed	Pulses(PNP) RS485 4-20MA 0-5V	Three cup plastic wind speed
CDF-11A	Wind direction	RS485 4-20MA 0-5V	Plastic wind direction sensor
CDF-20B	Combined Wind Speed & Direction	RS485 4-20MA 0-5V 0-10V	Integrated wind speed and direction
CDF-21A	Ultrasonic Wind Speed & Direction	RS232/RS485(Modbus/NMEA-0183), Voltage(0-5V),Current(4-20mA) optional	Ultrasonic principle
CDW-33A	Atmospheric Temperature,Humidity & Pressure	RS485	Shelter installation
CDQ-T6A	Miniature Ultrasonic Automatic Weather	RS485	Wind speed & direction temp & humidity &pressure
CDY-12A	Economical Tipping Bucket Rainfall	Pulses(@10kΩ&0.01uF),RS485	Diameter :φ200mm, height: 271mm
CDG-10B	Solar Radiation	0-5V,4-20mA,RS485	Spectral range:300～1100nm
CDG-11B	Pyranometer	0-20mV,RS485	Spectral range:300～3000nm Class one
CDG-12B	PAR sensor	0-5V 4-20mA RS485	Spectral range:400～700nm
CDG-13B	Ultraviolet(UV) Radiation	0-5V 0-10V 4-20mA RS485	Spectral range:280～400nm
CDG-14A	Illuminance Sensor	0-5V 0-10V 4-20mA RS485	Spectral range:380～780nm
CDG-17B	Scattering Radiometer	RS485	Spectral range:280～3000nm

CE