



CDP-18A Multi-Plate Radiation

For weather automation applications



Features

- Good air circulation around shield
- Away from large masses (asphalt, masts, solar panels) especially metal items
- Away from exhaust vents, electrical machinery and motors
- Away from standing water, water fountains and sprinklers

The Multi-Plate Radiation Shield protects temperature, relative humidity or barometric pressure sensors from error-producing solar radiation and precipitation. This shield relies on a combination of plate geometry, material and natural ventilation to provide effective shielding. The radiation shield reflects sunlight from any direction, prevents sun direct radiation and reflection on the ground to the sensor radiation, to protect the instrument from the effects of strong winds, rain, snow, etc. Freely through the air, making instrument work in ventilated environment, to ensure the accuracy of measured data. Products with high reflectivity and low thermal conductivity, resistance to ultraviolet ray function, can be used in extreme weather conditions.

Typical installation locations

- Top of building
- Solar energy
- Open areas
- Outdoor locations

Design structure

The screen is bounded by sheets of louvers. This louver structure allows the free flow of air, so that the temperature and humidity in the box can be fully exchanged with the surrounding environment, so as to ensure that the measurement is the natural state of air temperature and humidity. At the same time, the tilt angle and spacing of the louver are carefully designed to ensure good ventilation, but also to prevent direct sunlight, rain, dust and strong winds directly into the box, and play an effective role in protecting the measuring instrument.

Easy installation

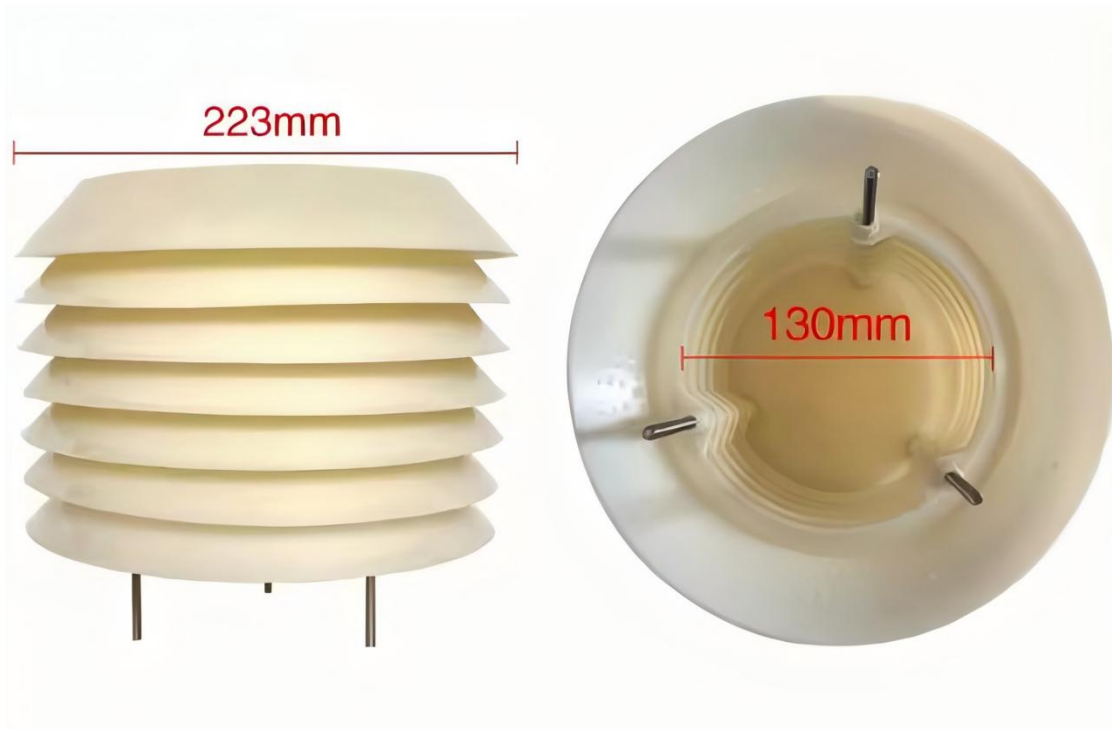
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Reliable operation

Strong weather resistance: Because the shelter is exposed to the outdoor environment for a long time, it needs to withstand the test of various weather conditions, so the material must have good weather resistance. It can resist the influence of ultraviolet radiation, wind and rain erosion, temperature change and other factors to ensure the service life and measurement reliability of the shelter.

Dimensions

CDP-18A connector dimension



Maintain

Regular cleaning: The screen needs to be cleaned regularly to keep the vents open and prevent dust and debris buildup from affecting the measurement results. Cleaning is relatively simple, just wipe the screen surface and vents with a clean wet cloth.

Inspection and maintenance: regular inspection and maintenance of the shelter, check whether the structure of the shelter is firm, whether the vent is smooth, whether the measuring instrument is working normally. If problems are found, timely maintenance or replacement to ensure the reliability of the shelter.

Technical data

Measurement performance, models CDP - 18 A

Item	Specifications
Number of plates	7 -18 plates optional,type.:7,8,10,12,14
Color	Yellowish
Material	Anti-radiation ABS engineering plastics & Stainless steel screw
Operating temperature	-40℃-+75℃
Dimension	Inner diameter:130mm, Outer diameter:220mm Height:210mm(10 plates)
Optional accessories	Metal bracket(304SS), Embrace hoop screw(304SS)

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
CDP-10A	Multi-Plate Radiation Shield	4 -20 plates optional	Inner diameter:44mm, Outer diameter:140mm
CDP-11A-12A	Lighter Multi-Plate Radiation Shield	ABA material	Inner diameter:30mm or 22mm, Outer diameter:130mm or 79mm Internal height:135mm or 80mm
CDP-18A	Multi-Plate Radiation Shield	9 -18 plates optional	Inner diameter:130mm, Outer diameter:220mm
CDP-1T0A	Hall Current Sensor & DC Voltage	4-20mA, RS485	Range DC0-150A DC0-500V
CDP-1T1A	Solar Power system	Rated current 10A	No-load current ≤12mA@12V

