

# Temperature Humidity Light Intensity And Pressure Radiation

The Radiation Shield is a naturally aspirated enclosure designed to house environmental sensors such as the BME680 and VEML7700. Its series of white concentric plates protect the sensors from direct solar and terrestrial radiation while allowing free air circulation. This design minimizes measurement errors caused by solar heating, ensuring accurate monitoring of temperature, humidity, and light in outdoor meteorological applications. Built from durable, weather-resistant materials, the shield is suitable for long-term outdoor use. Its lightweight construction and simple mounting options make it easy to install on poles or walls, providing reliable performance for weather stations, agricultural monitoring, and environmental research.



## FEATURES

- Wide measurement range: -40 °C to +85 °C, 0-100% RH, 300-1100 hPa and 0.003 lux to 140,000 lux
- Maintenance-free for long-term field deployment
- Low power consumption, suitable for remote stations
- Rugged IP66 enclosure for harsh environments
- Compact & lightweight, easy to install with radiation shield

## SPECIFICATIONS

Compatible Sensors	BME680 (temperature, humidity, pressure) and VEML7700 (ambient light)
Temperature Accuracy	±1°C
Humidity Accuracy	±3.0% RH
Pressure Accuracy	±1hPa
LUX Accuracy	±3%

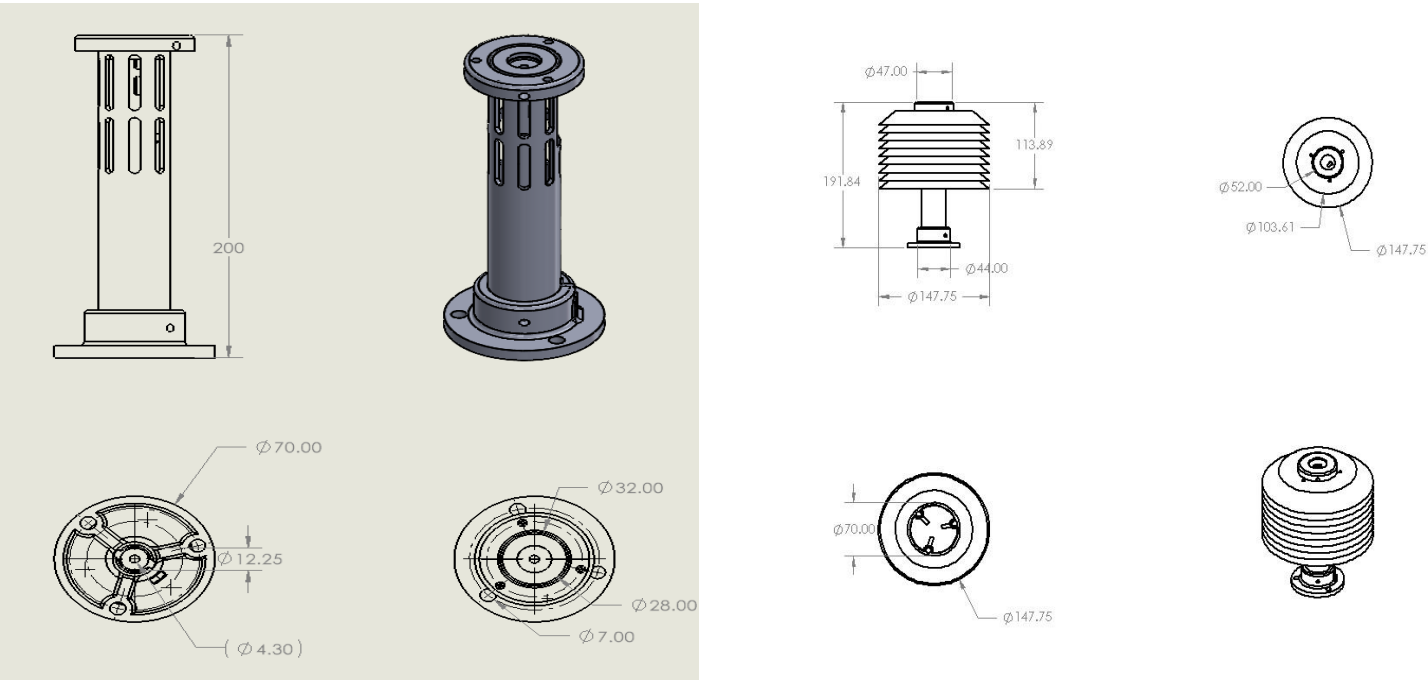
## APPLICATIONS

- Weather monitoring & observation
- Environmental monitoring (air quality, climate change studies)
- Renewable energy (solar farms, wind turbine site monitoring)
- Smart cities & IoT projects
- Industrial process monitoring (food storage, pharmaceuticals, clean rooms)

RADIATION SHIELD

ENCLOSURE SPECIFICATIONS

Type	Multi-plate radiation shield (Stevenson-type)
Material	UV-stabilized ABS
Color	Glossy White (for maximum solar reflectivity)
Plates	9 louvered plates, stacked with spacing for airflow
Dimensions	Ø 122 mm (diameter), Height 188 mm
Weight	0.45 kg
Ingress Protection	Natural ventilation design (not sealed)
Operating Temperature	−40 °C to +85 °C
Humidity Range	0–100 %RH, non-condensing
Mounting Options	Pole mount with Mild steel U-bolts
Ventilation	Passive airflow design for accurate sensor response
UV Resistance	Rated for >5 years outdoor exposure
Durability	Resistant to rain, dust, snow, and solar radiation



## RADIATION SHIELD

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