

MBMET 800 SERIES

PV Module Temperature Sensor

Class A accuracy at any cable length

Overview

Designed for Photovoltaic System performance monitoring, the MBMet-800 Series offers precise measurements of PV Module Temperature. It uses PT100/PT1000 Class A Sensor Element sealed in a stable aluminium cuboid to provide accurate temperature measurements. PV Module Temperature is critical for Performance Ratio calculations. The MBMet-800 Series provides stable measurements, even at longer cable lengths. The sensor is designed to withstand India's rough climate conditions and the Harsh electrical environment of Solar Plants. The sensor is protected from Surges of up to 2.5kV – according to IEC-61000 & IS-14700.

The MBMet-800 Series has options available for installation on Bifacial PV Modules. The MBMet-800-BI series is specifically designed for installation and use in Bifacial PV Modules. With a sensor surface area of just 75mm, the MBMet-800-BI series is the most compact available in the market. The compact design minimizes the sensor impact on Bifaciality and is small enough to fit between cells of a Bifacial PV Module.



2 Standard
Warranty
Years

A IEC-60751
COMPLIANT
Class

2 Recommended
Recalibration
Years

A IEC-61724-1
COMPLIANT
Class

Benefits and Features



2 Year
Standard
Warranty &
recommended
recalibration
interval



Traceable and
Serialized
Calibration
Certificate
supplied
with each sensor



Compact
Design available
for Bifacial
Modules



Widest
Temperature
Range of -40°C
to +150°C



Best in Class
Accuracy of
0.2°C



Multiple
output
options
available

Technical Specifications

Model/Parameter	MBMet - 801A	MBMet - 801B	MBMet - 802	MBMet - 803	MBMet - 803BI
Output	PT 100	PT 1000	4-20mA	RS-485 Modbus	
Sensor Type	RTD Class A				
Input Voltage	NA		(Self-loop powered) 12 to 24 VDC	12 to 24 VDC	

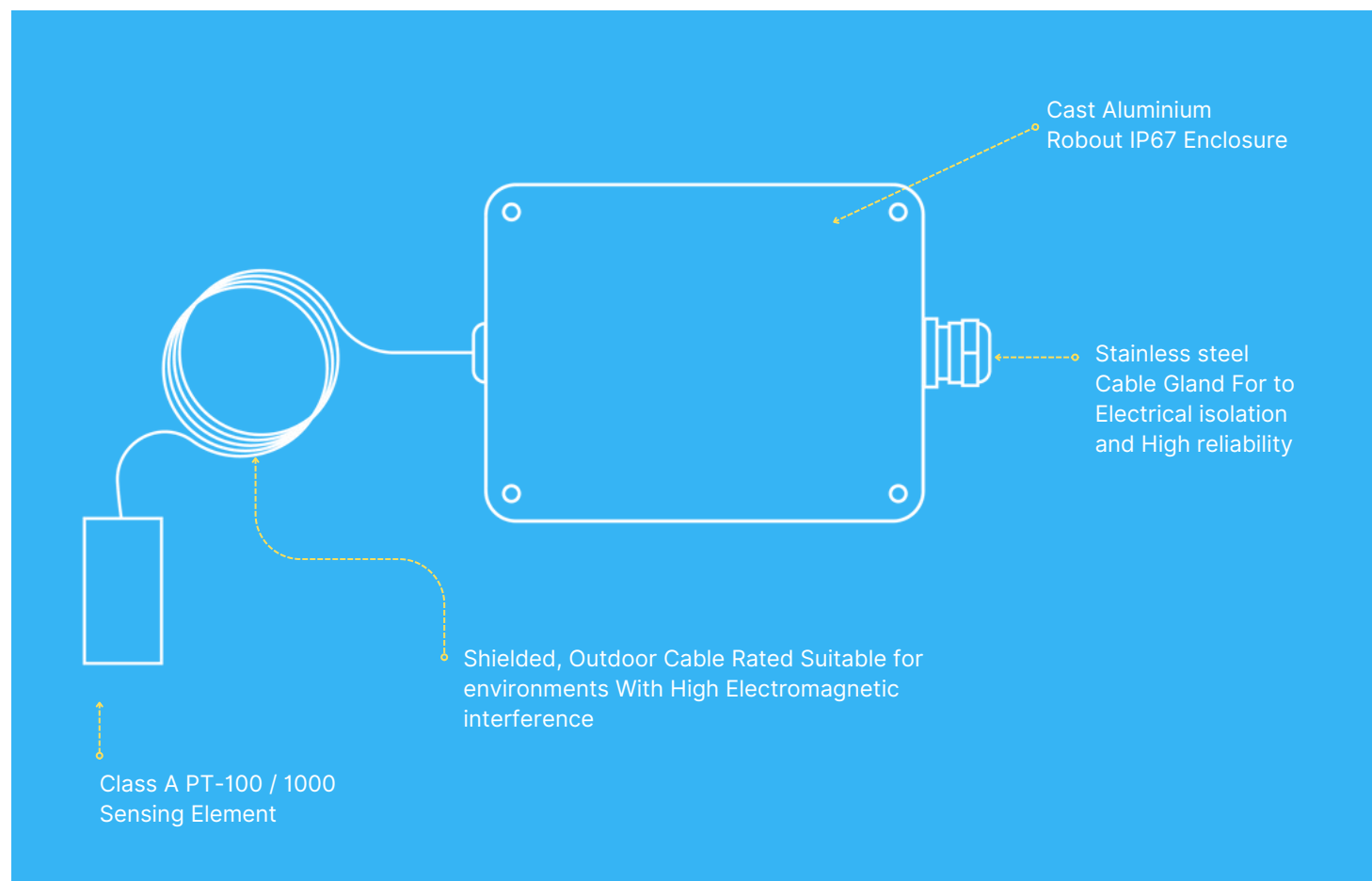
MODULE TEMPERATURE

Measuring Range	-40°C to +110°C		-40°C to +150°C	
Accuracy	Class A		±0.2°C	
Temperature Stability	<0.1°C per year			

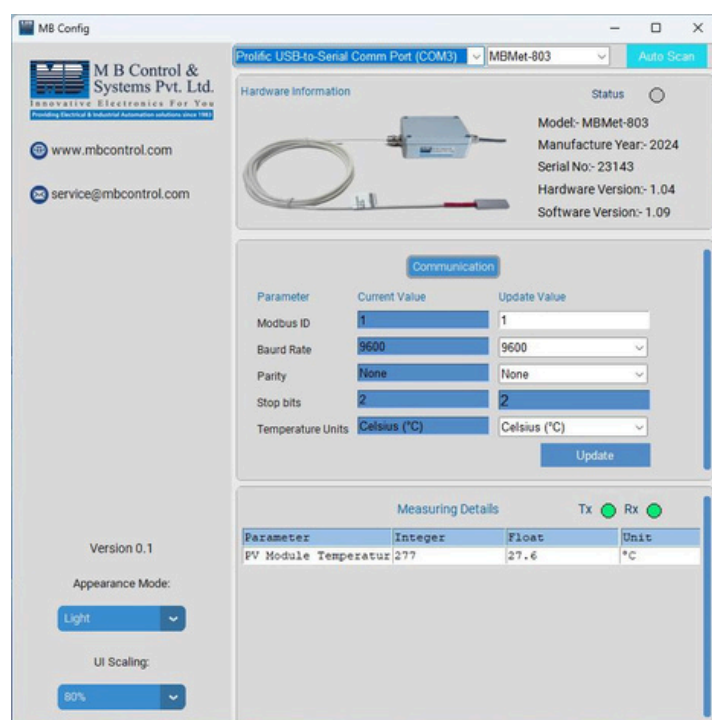
GENERAL SPECIFICATIONS

Operating Atmospheric Temperature	-40°C to +150°C				
Operating Ambient Humidity (Non-condensing)	0.1 to 99.9% RH				
Sensor Transmitter Cable	EMC Compliant, Shielded, Outdoor Cable				
Sensor Cable-Length	3 meters				
Sensor Housing	Aluminum with double-sided tape				
Transmitter Housing	NA		Powder Coated-Cast Aluminum, IP67		
Dimension Size	NA		64 × 58 × 34 mm (LxWxH)	98 × 64 × 36 mm (LxWxH)	
Weight (packed)	72g (with standard 3 meters cable)		518g (with standard 5 meters cable)	754g (with standard 5 meters cable)	
Power Consumption	NA		20mA max @12/24VDC	30mA @12VDC	

Feature Diagram



Sensor Configuration Software



Configuration Software: “MB Config”, a configuration software designed specially for configuration and trouble-shooting all MBMet Sensors. Users can download this Free to use software to a standard Laptop / PC and connect MBMet Sensors to it. All configuration settings, Modbus Frame Analysis, Heating Operation, Real-Time Data Viewing can be done seamlessly through this compact and powerful tool.

Ordering String

MBMet -80

Communication	
PT-100	1A
PT-1000	1B
Analog (4-20mA)	2
RS-485 Modbus	3

Cable Length	
No cable	X
Cable (in mm)	

For example: MB Met-803-5000

Description: PV module Temperature sensor with RS-485 Modbus output and 5m. cable

Certifications

IEC-61000-4-18 Damped Oscillatory Wave Immunity Test

IEC-61000-4-8 Power Frequency Magnetic Field Immunity Test

IEC-60751 ed 2.0 Industrial Platinum Resistance Thermometers & Platinum Temperature Sensors

Inbuilt Surge Protection

IEC-61000-4-5:2017 (Level 4),

IEC-61000-4-4:2012 (Level 3),

IEC-61000-4-2:2008 (Level 1),

IEC-61000-4-12:2017 (Level 4),



SEE ALSO

- MBMET 800 SERIES PV MODULE TEMPERATURE SENSOR MBLOGGER
- NANO AND 1000 SERIES DATALOGGERS PM180 SERIES POWER QUALITY
- METER MBMET 901 SERIES AIR TEMPERATURE, HUMIDITY & PRESSURE
- SENSOR PM130 SERIES MULTIFUNCTION METERS