

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 MB-Met-800 Series provides stable measurements, even at longer cable lengths. The sensor is designed to withstand India's rough climate conditions worldwide and the harsh electrical environment of solar plants. The sensor is protected from surges of up to 2.5 kV—according to IEC-61000 & IS-14700. The MBMet-800 Series has options available for installation on bifacial PV Modules. The compact design minimises the sensor impact on bifaciality and is small enough to fit between cells of a bifacial PV Module.



Benefits and Features



2 Year Standard Warranty & recommended recalibration interval



Traceable and Serialised Calibration Certificate supplied with each sensor



Compact Design available for Bifacial Modules



Widest Temperature Range of -40°C to $+150^{\circ}\text{C}$



Best in Class Accuracy of 0.2°C



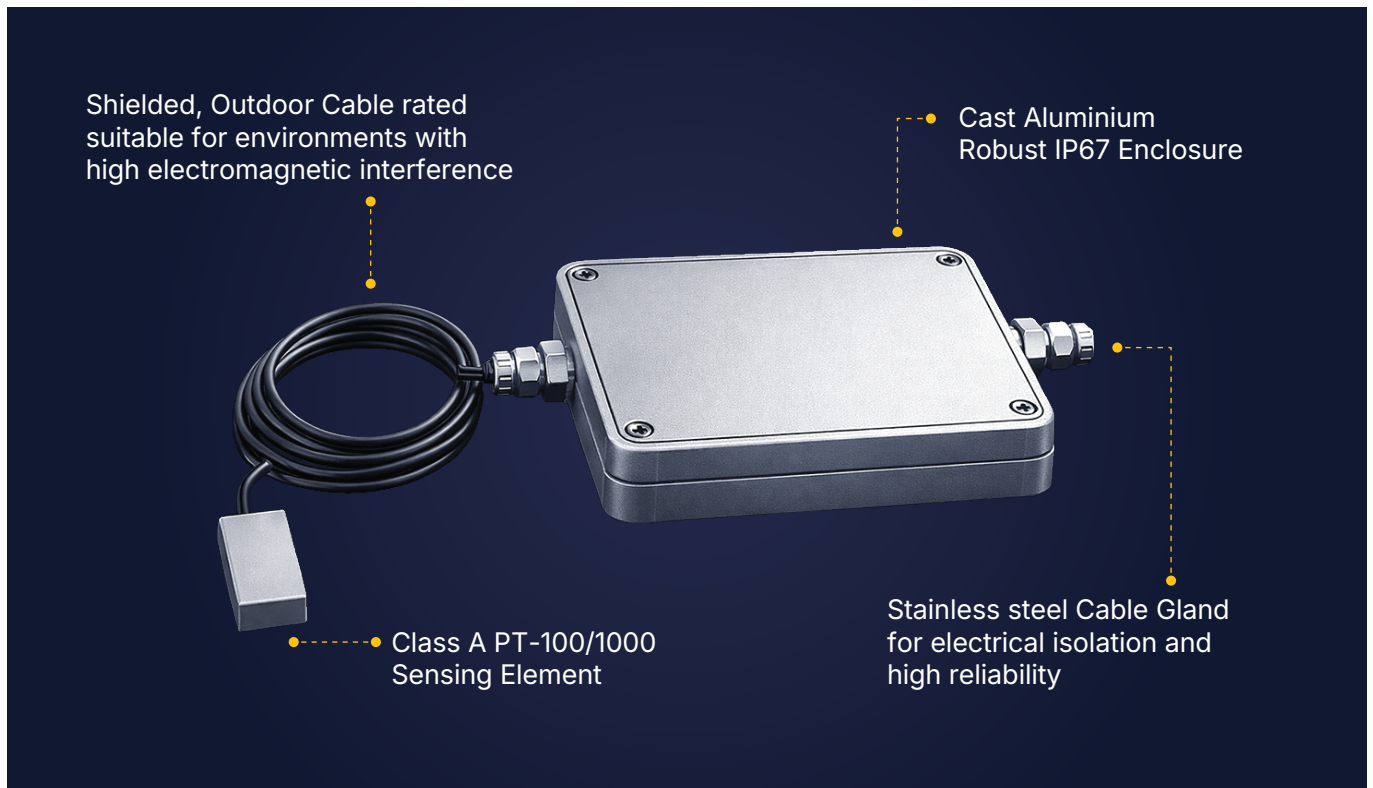
Multiple output options available

Technical Specifications

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Model/ Parameter	MBMet - 801A	MBMet - 801B	MBMet - 802	MBMet - 803
Output	PT 100	PT 1000	4-20mA	RS-485 Modbus
Sensor Type	RTD Class A			
Input Voltage	NA	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	Aluminium with double-sided tape			
Transmitter Housing	NA		Powder Coated-Cast Aluminium, IP67	
Dimension Size	NA		64 x 58 x 34 mm (LxWxH)	98 x 64 x 36 mm (LxWxH)
Weight (Packed)	72g (+3 meters cable)		518g (+5meters cable)	754g (+5meters cable)
Power Consumption	NA		20mA max @12/24VDC	30mA @12VDC

Feature Diagram



*For illustrative purposes only

Ordering String



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

Cable Length	B
No Cable	X
5m Cable	5000
Customised Length Cable (in mm)*	

*: Please enter required cable length in mm

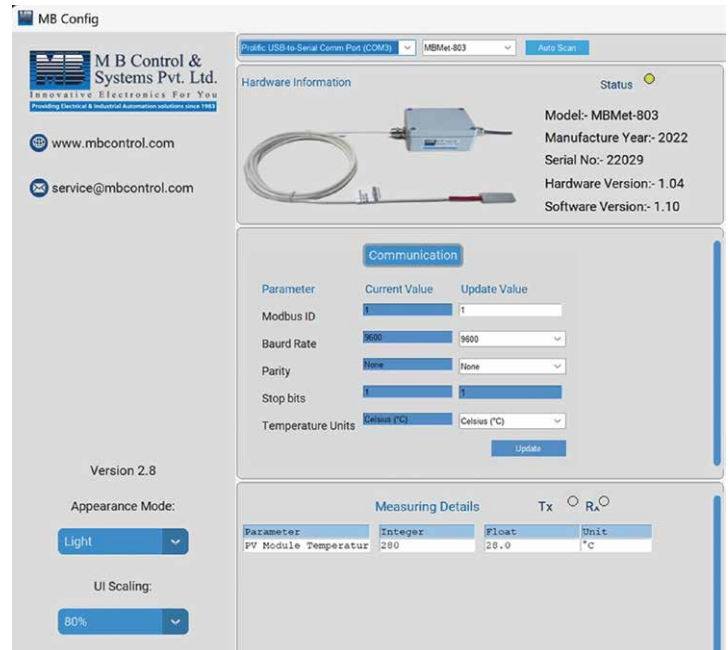
For example: MB Met-803-5000

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

Sensor Configuration Software

“MB Config”, a configuration software designed specially for configuration and trouble-shooting all 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.

Scan the QR Code to Access and download the MB Config Software :



Certifications

IEC-61000-4-18	Damped Oscillatory Wave Immunity Test
IEC-61000-4-8	Power Frequency Magnetic Field Immunity Test
IEC-610751 ed 2.0	Industrial Platinum Resistance Thermometers & Platinum Temperature Sensors
IEC-60068-2-2/2-3	Environmental Test - Dry Heat Test
IEC-60068-2-78	Environmental Test - Damp Heat Test
IEC-60068-2-1	Environmental Test - Cold Test

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)

