

MBMET 901 SERIES

Atmospheric Air Temperature, Relative Humidity & Barometric Pressure Sensor

Overview

MBMet 901 series offers highly accurate, fully calibrated and stable measurement of Atmospheric Air Temperature, Relative Humidity, Barometric Pressure, Air Density and Dew Point. Low power consumption, fast response time, and long-term stability makes the MBMet 901 ideal for a wide number of applications ranging from portable devices to product designed for harsh environments. When exposed to sunlight, the sensor must be housed in a Radiation shield. The MBMet-901 Sensor uses only the latest generation Relative Humidity, Temperature and Barometric Pressure components to Deliver Reliable and Repeatable Measurements. The Sensor Filter is Field-Replaceable which makes Maintenance very easy and reduces Downtime. The MBMet-901 Series Sensor is Tested to Perform in Harsh Environments, specially in conditions which have high Electromagnetic Interference, making it ideal for Solar Plants, Wind Resource Assessment, Electrical Substations, etc.



Benefits and Features



Accurate and
stable
measurements



Self-loop
powered (for
Analog Output
model)



Reverse Polarity
Protection



Each sensor
element is
individually
calibrated



Field
replaceable
filter –
eliminates
downtime



Fast
response
time

Technical Specifications

Input Voltage	9-32VDC
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AMBIENT TEMPERATURE

Measuring Range	-40°C to +125°C
Resolution	0.001°C
Accuracy (Typical)	±0.2°C
Response Time	2s
Stability	<0.03°C per year

RELATIVE HUMIDITY

Measuring Range	0 to 100%RH
Resolution	0.001%RH
Accuracy (At 25°C)	±2%RH
Response Time	4s
Stability	<0.2%RH per year

DEW POINT

Measuring Range	-40°C to 105°C
Resolution	0.001°C
Accuracy	Calculated
Response Time	8-30s

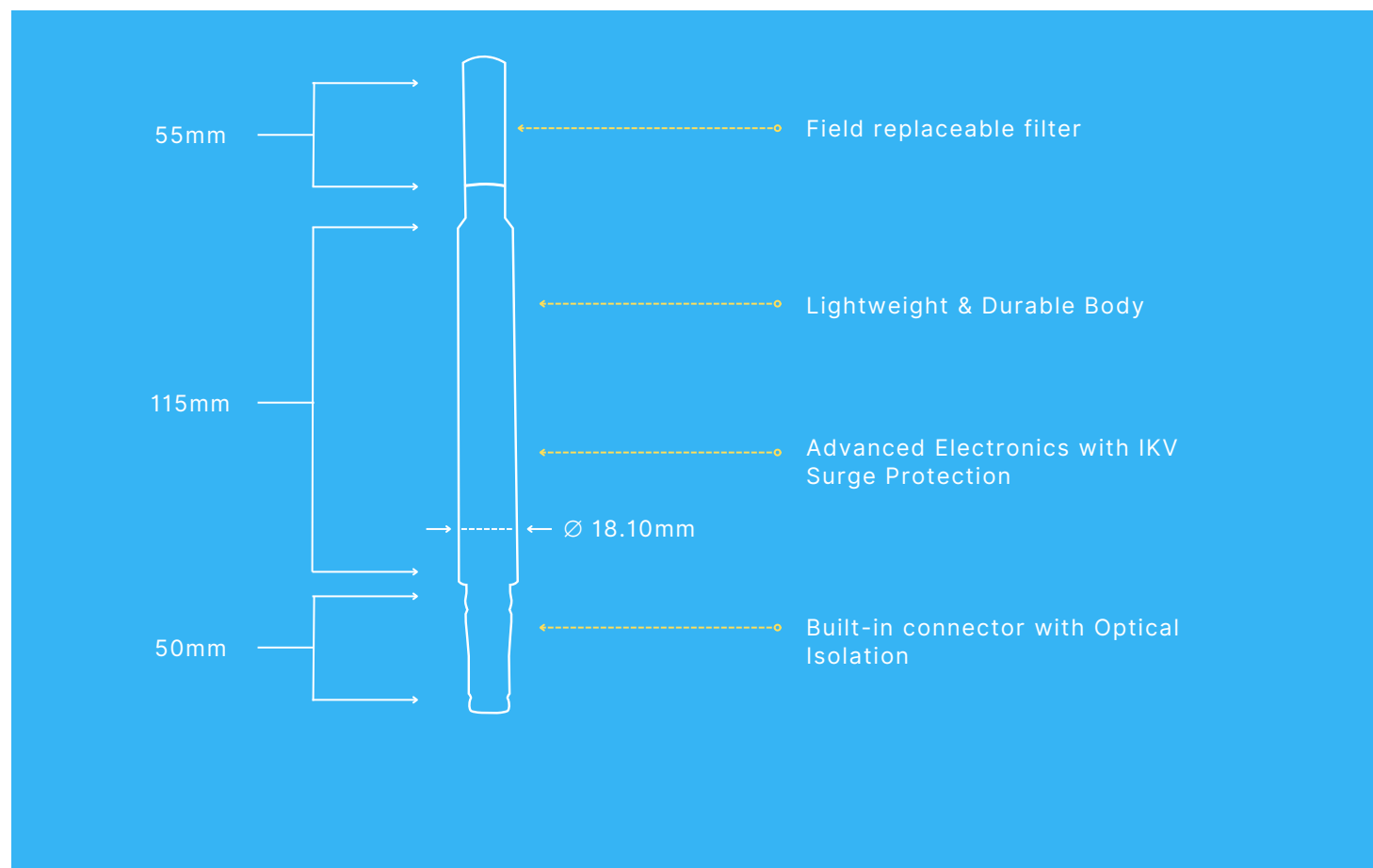
BAROMETRIC PRESSURE

Measuring Range	300 to 1250 hPa
Resolution	0.001 hPa
Accuracy	±0.4 hPa
Response Time	0.1s
Stability	±1 hPa Per Year

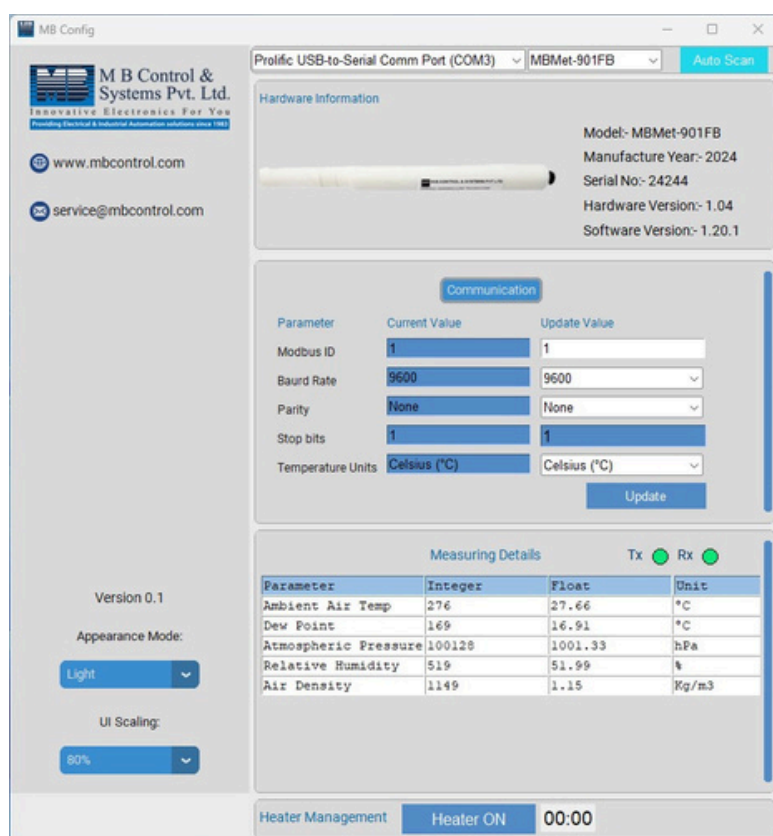
AIR DENSITY

Accuracy	Calculated
Calculation Time	5s

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-901

Options	
Air Temperature + Relative Humidity + Barometric Pressure	A
Air Temperature + Relative Humidity	B
Air Temperature	C
Relative Humidity	D
Barometric Pressure	E
Ambient Temperature + Relative Humidity + Barometric Pressure + Air Density	F

Communication	
4-20mA	A
RS-485 Modbus	B

Radiation Shield	
Radiation Shield and Pole Mounting Accessories	A
Wall Mounting (No Radiation Shield)	B
Radiation Shield + Wall Mounting Accessories	C

Cable Length	
No Cable	X
Cable in mm	

For example : MBMet-901-FBA5000

Parameter : Ambient Temperature + Relative Humidity + Barometric Pressure + Dew Point + Air Density

Output : RS-485 Modbus with Radiation Shield and Pole Mounting Accessories, Cable Length : 5 meters

Certifications

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

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

