

## Ultrasonic Wind Speed and Direction Sensor

### OVERVIEW

MBMet 140 series offers high precision and robust Ultrasonic Anemometer. It measures horizontal wind speed and direction, measuring accurately and providing reliable data in demanding wind conditions and climates. These sensors are an alternative to traditional mechanical cup and vane or propeller and vane anemometers. The body material is of aluminum alloy, offering high-strength structure to with-stand harsh weather conditions and resistance to corrosion.



MBMet 140H series

### BENEFITS AND FEATURES

- ▶ High Accuracy
- ▶ Low maintenance — no moving parts significantly reduces maintenance cost and time
- ▶ IP66 Protection Class
- ▶ Easy Installation
- ▶ Adapt to harsh weather conditions
- ▶ Interface in Analog 4-20mA and Digital RS-485 Modbus

### APPLICATIONS

- ▶ Renewable Energy
- ▶ Traffic Control Systems
- ▶ Meteorology
- ▶ Bridge and Tunnel
- ▶ Airports and Ports
- ▶ Agriculture

### TECHNICAL DESCRIPTION

Model/Parameters	MBMet-140H-A	MBMet-140H-B
Communication Output	4-20mA	RS-485 Modbus
<b>Wind Speed</b>		
Principle	Ultrasonic	
Measuring Range	0 to 60m/s (0 to 134 mph)	
Accuracy	±0.2m/s or 2% of reading, whichever is greater	
Resolution	0.01m/s (0.02 mph)	
Starting Threshold	0.1m/s	
<b>Wind Direction</b>		
Principle	Ultrasonic	
Measuring Range	0 to 359.9°	
Accuracy	±2°	
Resolution	0.1°	
Starting Threshold	1°	
<b>Measurement Performance</b>		
Response Time	0.25 sec	
Extreme Wind Speed	75m/s	
<b>Electrical Specifications</b>		
Input Voltage	12 to 30VDC	
Power Consumption	18mA @ 12VDC	
Overall Heating (Optional)	5A @ 24VDC	



## TECHNICAL DESCRIPTION *(Cont.)*

Model/Parameters	MBMet-140H-A	MBMet-140H-B
<b>General Specifications</b>		
Operating Temperature Range	-40°C to +70°C	
Ingress Protection Rating	IP66	
Dimension	195mm (H) × 160mm (W)	
Body Material	Aluminum Alloy	
Weight (unpacked)	1.1 Kg	

## ORDERING STRING

Model	Series	Output	Heating	Accessories	Cable Length	
MBMet						
	140H					
		A				4-20mA
		B				RS-485 Modbus
			A			Heating
			X			Without Heating
				A		With Pole Mounting Accessories
				X		Without Accessories
					5000	Units : mm (default)
					.....	Units : mm (on request)

For example : MBMet-140H-BXA5000

Parameter : Wind Speed + Wind Direction

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

**M. B. Control & Systems** with an experience of 35+ years are the leading manufacturer and solution provider in Electrical Automation and Instrumentation sector. Our weather station “**SURYA**” and sensors “**MBMet series**” are assembled and manufactured in Kolkata, West Bengal, India, where we have our R&D, manufacturing, testing and support team ensuring high quality design, product and customer support. Every sensor has been designed to provide scientific-grade precision and accuracy. They are tested rigorously in-house before shipping. The experienced R&D team puts in best efforts refining and upgrading the sensors to ensure minimal sensor routine maintenance.

## SEE ALSO

- **MBMet 100** Wind Speed Sensor
- **MBMet 110** Wind Direction Sensor
- **MBMet 120** Wind Speed & Direction Sensor
- **MBMet 140** Ultrasonic Wind Speed & Direction Sensor
- **MBMet 800** PV Module Temperature Sensor
- **MBMet 901** Air Temperature, Humidity & Pressure Sensor
- **MBMet 200P** Rain Gauge Sensor
- View our complete range of **Weather Sensors**

**\*\*Specifications are subject to change without notice.**

