



MRS 200KIT

Meteorological Radiation Shield & Ultrasonic Wind Sensor

The **MRS 200 KIT** combines a high-performance radiation shield for accurate ambient air temperature measurement with a modern **ultrasonic wind sensor** for measuring wind speed and wind direction.

The temperature sensor is positioned inside a ventilated multi-plate radiation shield that allows free air circulation while effectively protecting the sensitive sensing element from direct solar radiation. The mechanical design also reduces the influence of thermal radiation reflected and scattered from surrounding surfaces such as soil, snow, sand or paved areas. This significantly minimizes radiation-induced temperature errors.

A key feature is its integrated **ultrasonic wind measurement**. Four ultrasonic transducers are used to determine wind speed and wind direction using a contactless measurement principle. Unlike conventional mechanical wind sensors, the system does not require rotating cup assemblies or wind vanes, making it particularly suitable for applications requiring compact, low-maintenance and reliable meteorological measurements.

Features

- Wind measurement without moving parts
 - Drip edge prevents water from flowing back
 - Excellent air circulation
 - Reflective black undercoating
 - Robust polycarbonate housing
 - Modern and simple sensor mounting solutions for a wide range of diameters
 - Easy click sensor mount system without tools
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- **Wind speed from** 0.5 ... 45 m/s
 - **Wind direction from** 0... 359°
 - **Operating temperature** -15 ... +55 °C



Applications

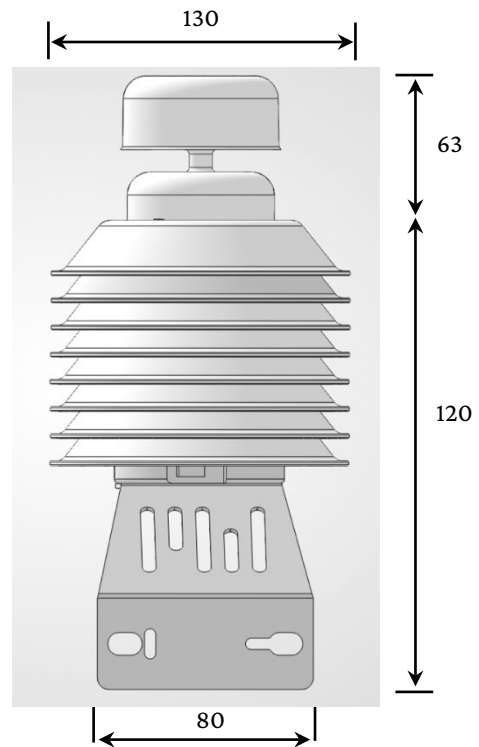
- Meteorological weather station
- Agricultural Meteorology
- PV & Solar Parks
- Industrial and factory sites



- Building Automation / Smart City

Specifications

Mechanical Data



- [1] All dimensions are in millimeters.
(tolerance : ± 0.2)
[2] Scale : freestyle
[3] This drawing without tolerances
are for reference only



Bracket 16mm



8x black undercoated
Polycarbonat shield



Default 60mm mast clamp



Bracket 12mm

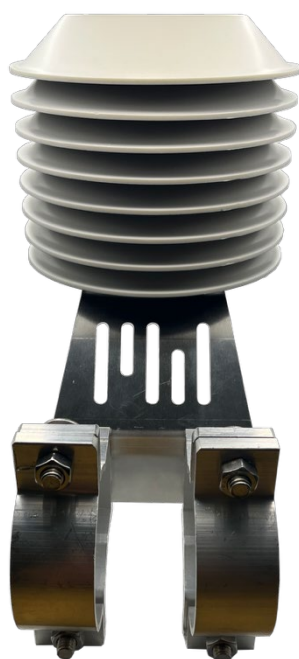
Sensor brackets are available in various diameters. Standard diameter = 16 mm

Maximum mounting diameter = 30mm

Electrical Data Windsensor

<i>Parameter</i>	<i>Min.</i>	<i>Typ.</i>	<i>Max.</i>	<i>Unit</i>	<i>Conditions/Comments</i>
Einsatztemperatur	-15		55	°C	Frost-free conditions
Electrical Supply					
Supply Voltage	3.3		18	V DC	
Current Consumption RS485		0.25		mA	5 V, 38,400 baud, 1 Hz
Communication					
Baud Rate	2,400		115,200	baud	8N1
Modbus Address		236			
Output Rate	0.1		20	Hz	
RS485					NEMA 0183 / Modbus
Data Output					Stream / Poll
Sensor Principle					
Measurement Methode					Ultrasonic, 4 transducers

Additional Accessories



Ordering

<i>Product/Replacement part</i>	<i>Order number</i>
MRS 100KIT	740100
Ultrasonic wind sensor	550001
Bracket 16mm	270010
Bracket 12mm	270011

Mast clamp 60mm galvanised default	270012
2x Mast clamp Aluminium 60mm	270013

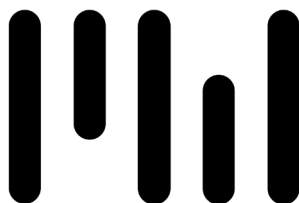
Revision History

2026-08-23	Rev. 0: Initial Version
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Disclaimer

All product, product specifications and data are subject to change without notice.

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