



Wind Direction Sensor

The Wind Direction Sensor is part of the SEVEN meteorological sensor range, which includes professional and intelligent measuring sensors with a digital or analog interface for environmental and industrial applications such as PV plants.

The Wind Direction Sensor uses a Hall Effect Position Sensor operating based on magnetic field influence. This sensor detects changes in wind direction and converts them into a signal.

The measured wind direction data is transmitted as analog or digital output signals to data loggers and receiving units, according to input requirements.

SEVEN products use reliable, high-quality components to provide accurate meteorological information in environmental and industrial applications.

The product is specially designed to meet the needs of PV plant monitoring systems and is offered with a choice of metal or plastic housing.

Benefits and Features

- High Accuracy
- Fast & Simple to Install
- Low Power Consumption
- Free Software Update
- SunSpec Compliant (for Modbus RTU)
- SEVEN Remote Setup Service
- SEVEN Customer Support
- 2 Year Warranty

Models

3S-WD-A

Small and economical wind direction sensors with 0–3,3 V analog output. They offer the best price/performance ratio for the standard requirements of industrial and environmental applications such as PV plants. With a seawater-resistant anodized aluminum body, they provide high durability against outdoor conditions. They can be connected to SEVEN Irradiance Sensor, Sensor Box, and Compact Weather Station models via a pin connector.



3S-WD-I-A

Wind direction sensors with 4–20 mA analog output are specially designed for advanced industrial applications and environmental conditions. With a seawater-resistant anodized aluminum body, they provide high durability against outdoor conditions. This model is compatible with all dataloggers that have a 4-20 mA input.



3S-WD-MB-A

Modbus wind direction sensors are professional and intelligent measuring sensors with a digital interface for environmental and industrial applications such as PV plants. With a seawater-resistant anodized aluminum body, they provide high durability against outdoor conditions. The measured value can be transmitted to monitoring instruments, data loggers, and other receiving units via the serial RS485 interface using the Modbus RTU protocol.



3S-WD-P

Technically similar to the 3S-WD-A model. The only difference is that its housing is made of UV-resistant ASA material. It can be connected to SEVEN Irradiance Sensor, Sensor Box, and Compact Weather Station models via a pin connector.



3S-WD-I-P

Technically similar to the 3S-WD-I-A model. The only difference is that its housing is made of UV-resistant ASA material.



3S-WD-MB-P

Technically similar to the 3S-WD-MB-A model. The only difference is that its housing is made of UV-resistant ASA material.



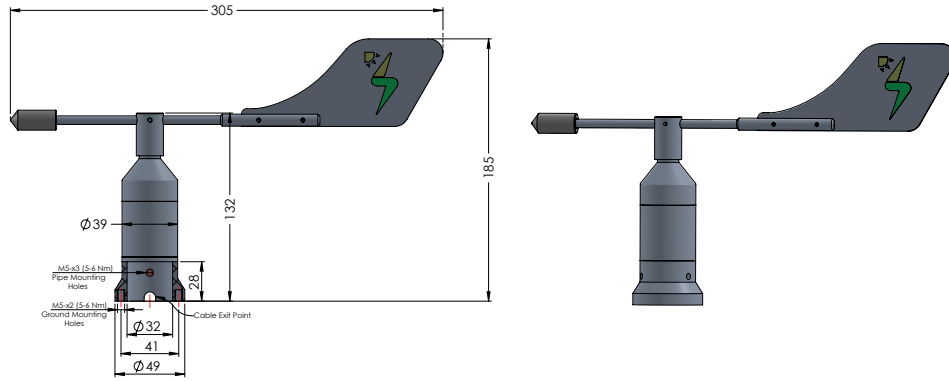
Technical Specifications

	3S-WD-A	3S-WD-P	3S-WD-MB-A	3S-WD-MB-P	3S-WD-I-A	3S-WD-I-P
Sensor Type	Vane-Driven Hall Effect Position Sensor					
Measuring Range	0-359°					
Accuracy	±5° from the measured value (Optional ±1°)					
Resolution	0,1°					
Threshold	1 m/s					
Data Output	Analog (0 V – 3,3 V)		RS485 up to 38400 Baud		Analog 4-20 mA	
Communication Protocol	-		Modbus RTU		-	
Power Supply	-		12 - 30 V DC (recommended 24 V DC)			
Power Consumption	-		Typically 20 mA at 24 VDC		Typically 30 mA at 24 VDC	
Cable Length & Features	2m 2x2x0,22 mm² - LI2Y-C11Y-TP Cable, UV and Weather Resistant		1m 3x2x0,22 mm² - LI2Y(st)C11Y Cable, UV and Weather Resistant		1m 2x2x0,22 mm² - LI2Y(st) C11Y Cable, UV and Weather Resistant	
Operating Temperature Range	-40°C ... +85°C (Ice free)					
Dimensions	305 x 185 mm	265 x 190 mm	305 x 185 mm	265 x 190 mm	305 x 185 mm	265 x 190 mm
Converter Box Dimensions	-		80 mm x 82 mm x 55 mm (W x L x H)			
Weight	0,31 kg	0,18 kg	0,45 kg	0,33 kg	0,45 kg	0,33 kg
IP Rating	IP 54					
Housing Material	Aluminum	ASA	Aluminum	ASA	Aluminum	ASA
Vane Material	Aluminum	PA6GF4	Aluminum	PA6GF4	Aluminum	PA6GF4
Mounting Method	Pipe or Ground Mounting					
Standard	Compliant to IEC 61724-1:2021					
Origin	TÜRKİYE					

Note: SEVEN has the right to make changes to this document without prior notice.

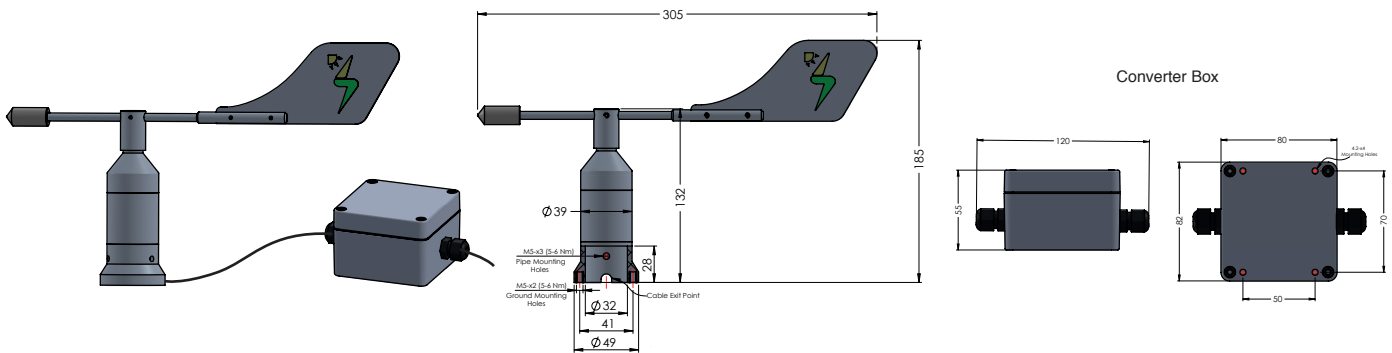
Technical Drawings

3S-WD-A Technical Drawing



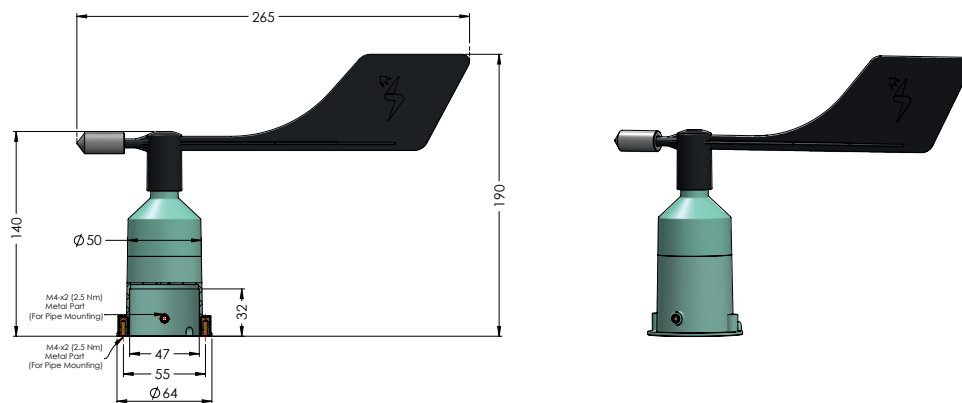
Note: All dimensions are in mm.

3S-WD-I-A, 3S-WD-MB-A Technical Drawing



Note: All dimensions are in mm.

3S-WD-P Technical Drawing



Note: All dimensions are in mm.

Technical Drawings

3S-WD-I-P, 3S-WD-MB-P Technical Drawing

