



### 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.

It is a measuring transmitter used for the measurement of the horizontal wind direction.

The measured horizontal wind direction data are transmitted as analog or digital output signals to the data loggers and receiver units according to the input requirements.

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

They are specially designed according to the requirements of PV plant monitoring systems.

#### **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 Years Warranty

#### **Models**

#### 3S-WD

It is a measuring transmitter with potentiometer output used for the measurement of the horizontal wind direction. The measuring values are transmitted as ohmic resistance-signals. The wind direction is detected by a wind vane and is then transmitted to a potentiometer. It can be connected to SEVEN Irradiance Sensor or Sensor Box models with a 7-pin female connector with IP67 protection class.



#### 3S-WD-I

Wind direction sensors with analog 4-20 mA output specially designed for advanced environmental conditions. The outer parts of the wind direction sensor are made of corrosion resistant polyamide and aluminum materials. The analog 4-20 mA output is universally compatible with all other industrial systems.



### 3S-WD-MB

Professional and intelligent measuring sensors with a digital interface for environmental and industrial applications such as PV plants. The measured value can be transmitted to monitoring instruments, data loggers and other receiving units via the serial RS485 interface with MODBUS RTU protocol.





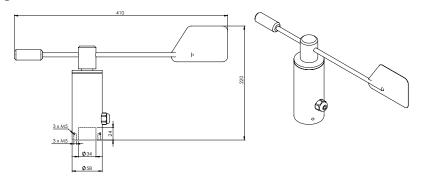


### **Technical Specifications**

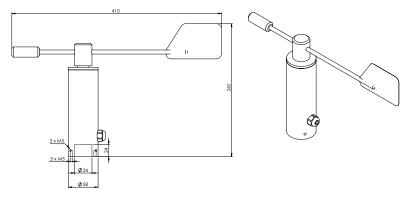
|                             | 3S-WD  | 3S-WD-MB               | 3S-WD-I         |
|-----------------------------|--|------------------------|-----------------|
| Sensor Type                 | Wind Vane (Potentiometer)  |                        |                 |
| Measuring Range             | 0 to 359°  |                        |                 |
| Accuracy                    | 5°   |                        |                 |
| Resolution                  | 1°   |                        |                 |
| Threshold                   | 1 m/s  |                        |                 |
| Survival Speed              | 60 m/s   |                        |                 |
| Data Output                 | Potentiometer  | RS485 up to 38400 Baud | Analog 4-20 mA  |
| Communication Protocol      | -  | Modbus RTU             | -               |
| Power Supply                | -  | 12 to 30 V DC          |                 |
| Power Consumption           | -  | 20 mA @ 24 V DC        | 30 mA @ 24 V DC |
| Electrical Connection       | 3 m LI9YC11Y Cable, UV and Weather Resistant  3 m LIYYC11Y PUR Cable, UV and Weather Resistant |                        |                 |
| Operating Temperature Range | -40°C to +85°C (Ice Free)  |                        |                 |
| Dimensions                  | 410 x 220 mm   | 410 x 260 mm           |                 |
| Weight                      | 580 gr   | 0,6 kg                 | 620 gr          |
| IP Rating                   | IP 54 (Optional IP 65)   |                        |                 |
| Housing Material            | Polyamide  |                        |                 |
| Vane Material               | Aluminum   |                        |                 |
| Mounting Method             | Pipe or Ground Mounting  |                        |                 |
| Standard                    | Compliant to IEC 61724-1:2021  |                        |                 |
| Origin                      | TÜRKİYE  |                        |                 |

# Technical Drawings

# **Technical Drawings of 3S-WD**



# Technical Drawings of 3S-WD-I, 3S-WD-MB



Note: All dimensions are in mm.