ULTRASONIC ANEMOMETER

PCE-WS US2



- **high resistance to high-frequency interference and electromagnetic waves**
- **RS485 Modbus RTU output**
- **wear and maintenance-free ultrasonic transducers**
- **compact: measurement of wind speed and direction in one device**
- **protection class IP65 for outdoor use**
- **5 m cable with 4-pin M12 plug included**
- **power supply 9 ... 30 V DC**
- **max. permissible wind speed: 200 km/h**

The ultrasonic anemometer measures the wind flow using ultrasonic transducers to determine the exact wind speed and direction. The ultrasonic measuring principle eliminates the need for moving parts, as used in mechanical cup anemometers, so there is no wear due to mechanical friction. The ultrasonic anemometer has a robust construction, is designed for use in industrial environments and is highly resistant to radio frequencies and electromagnetic waves. Thanks to its high IP65 protection, it is also protected against the ingress of dust and water, making it ideal for outdoor use.

The ultrasonic anemometer offers RS485 Modbus RTU bus communication and is therefore compatible with the latest industrial communication protocols. The compact design of the ultrasonic anemometer enables the measurement of wind speed and direction in a single device, significantly reducing the complexity and space requirements of conventional mechanical anemometers and wind vanes.

Typical applications include solar trackers, irrigation control systems, greenhouse automation, wind turbines, cranes and weather stations. The device is ideal for any application that requires precise wind monitoring for control, safety or industrial resource optimisation.

Specification

Speed	
Measuring range	0 ... 15 km/h
Resolution	1 km/h
Accuracy	0.5 km/h
Speed	
Measuring range	15 ... 120 km/h
Resolution	1 km/h
Accuracy	3 % of Rd
Speed	
Measuring range	120 ... 160 km/h
Resolution	1 km/h
Accuracy	5 % of Rd
Wind direction	
Measuring range	0 ... 359 °
Resolution	1 °
Accuracy	3 °

General technical data	
Measuring functions	Flow velocity
Connections	M12 4-pole
Display type	without display
Interface	RS485
Sensor	Ultrasound
Housing	PA (polyamide)
Protection class (device)	IP65
Power supply	9 ... 30 V DC
Operating conditions	-30 ... 70 °C , 0 ... 100 % RH
Storage conditions	-35 ... 80 °C , 0 ... 100 % RH
Dimensions (H x ø)	162 x 143 mm
Weight	400 g

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