

ULTRASONIC WIND SENSOR

8371.UMT

Extremely precise and maintenance-free measurement of wind velocity and wind direction

Parameters measured: Wind speed, wind direction, virtual temperature, barometric pressure

Measurement technology: Ultrasonic

Product highlights: Maintenance-free measurement, suitable for extreme ambient conditions, ice-free operation, vibration and seawater resistant, compatible interfaces

Interfaces: SDI-12, RS-485 with supported protocols Binary, ASCII, NMEA, Modbus & analogue Output



Specifications:

Dimensions : Ø approx. 150 mm,
height approx. 170 mm

Weight : approx. 1.62 kg

Wind direction

Principle : Ultrasonic
Measuring range : 0 ...359.9 °
Accuracy : ± 2 ° RMSE >1.0 m/s
Resolution : 0.1 °

Wind speed

Principle : Ultrasonic
Measuring range : 0...90 m/s
Accuracy : ± 0.2 m/s or ± 2% RMSE
(bigger value) for 0...65m/s
otherwise ±5%

Virtual temperature

Principle : Ultrasonic
Measuring range : -50 °C...+70 °C
Resolution : 0.1 °C
Accuracy : ± 2.0 C (without heater and without sun exposure or wind >4m/s)
Measuring rate : 60 partial measurement, 15 full measurements per second

Air pressure

Principle : MEMS capacitive
Measuring range : 300...1200 hPa
Accuracy : ±1.5 hPa
Resolution : 0.1 hPa

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Ambient temperature : -40..+60 °C (with heating)
-20..+60 °C (without heating)

Bus operation : up to 32 devices

Operating voltage : 12 - 24 VDC / 1.2 VA (without heating)
24 VDC / 240 VA (140 VA + 100 VA) C (with heating)

Electr. connection : 8 pole plug

Housing material : Aluminium, seawater-proof

Protection type : IP 68

Ø mounting pole : 50 mm / 2"

Factory certificate : yes

The following outputs/protocols are available: SDI-12, RS-485 with supported protocols Binary, NMEA, ASCII, MODBUS and analogue output 0...20mA, 4...20 mA, 0...10V, 0...20 mA, 2...10V, 2...2,000 frequency (instantaneous, avg, min, max)

Optional accessories

Surge protection : 8379.USP-V
Connection cable, 15m : 8371.UK015
Connection cable, 50m : 8371.UK050

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