

Wind Direction Sensor *Standard*



Description

Sensor for the measurement of the horizontal component of the wind direction.

A potentiometer senses the position of the vane and provides a resistance signal linearly dependent on the wind direction.

A built-in electrical heating prevents the bearings and the rotating part of the sensor from getting blocked by icing.

Technical Data

Sensor

Sensing element	vane
Transducer	precision wire potentiometer
Output	0..358° = 0..10 kΩ
Resolution	0.5°
Accuracy.....	± 1.5°
Starting threshold.....	0.6 m/s at 90° displacement

Vane

Material	anodized aluminium, black, stainless steel counter weight
Swept radius	ø225 mm
Bearings.....	stainless steel ball bearings

Power Supply

Supply voltage.....	1..15 VDC
Current consumption	0.5 mA at 5 V
Maximum load	1 mA at 15 V

Heating

Heating power	20 W at < 4 °C, electronically controlled
Supply voltage.....	24 VDC
Current consumption	0.83 A max.

Casing

Material anodized aluminium, blue
 Protection class IP 55 in upright position
 Dimensions ø50 x 500 mm
 Weight 0.7 kg
 Mounting the sensor mounts on a standard one inches pipe with ø34 mm outside diameter and >ø25 mm inside diameter

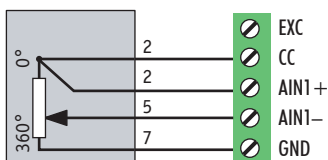
Electrical Connection

Connector (at the sensor) 7 pin circular connector DIN 45322
 Connector (to the data logger, optional) 12 pin circular connector DIN 45322
 Cable 10 x 0.25 mm², shielded

Wiring

7 pin connector	12 pin connector	Wire	Function
2	H	white	(+) power supply
2	J	brown	(+) power supply
5	K	green	output signal
7	A	yellow	ground
7	G	grey	ground
3	B	red+pink+violet	(+) heating
4	C	blue+black+grey	(-) heating
casing	casing	yellow/green and shield	cable shield

Connection to Data Logger blueberry COMPACT



- EXC
- CC
- AIN1 +
- AIN1 -
- GND

Output Signal
 Potentiometer
 Total resistance = 10 kΩ



Standard Setup

Input: **AIN1**
 Functions: **WindDir (°) = Direction 360..0 + 123**
 with '123' = offset to magnetic North

Environmental Conditions

Operating temperature -25..+70 °C
 Relative humidity 0..100%
 Maximum wind speed 60 m/s



Hammer Steindamm 35
D-22089 Hamburg • Germany
phone: +49(0)40-75 66 08 98
fax: +49(0)40-75 66 08 99
eMail: info@wilmers.com
www.wilmers.com