0321

Wind Direction Sensor *classic*

Description

Sensor for the measurement of the horizontal component of the wind direction with a maximum of precision and sensitivity.

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

A built-in electronical 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..360° = 0..2 kΩ
Resolution	0.5°
Accuracy	± 1.5°
Starting threshold	0.5 m/s at 90° displacement

Vane

Material	Anodized aluminium, stainless steel counter weight
Outside radius	ø425 mm
Bearings	Stainless steel ball bearings

Power Supply

Supply voltage	15 VDC max.
Maximum load	1 mA at 15 V

Heating

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

Casing

Material ..... Coated aluminium
Protection class ..... IP 55 in upright position
Dimensions ..... ø70 x 210 mm
Weight ..... 1.8 kg
Mounting ..... The sensor mounts on a standard 1 1/2 inches pipe with ø49 mm outside diametre and > ø38 mm inside diametre

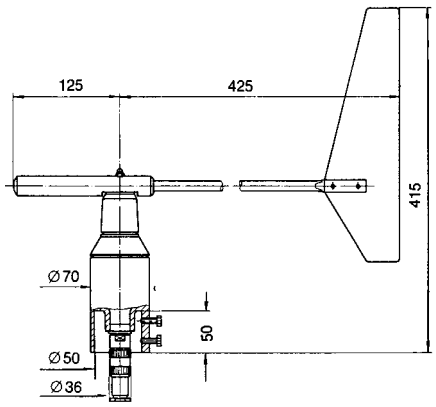
Electrical Connection

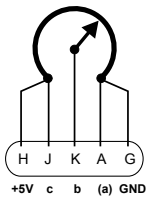
Connector (at the sensor) ..... 8 pin circular connector (EUCHNER)
Connector (to the data logger, optional) ..... 12 pin circular connector DIN 45322
Cable without heating supply ..... 5 x 0.25 mm² (optionally shielded)
Cable with heating supply ..... 10 x 0.25 mm² (optionally shielded)

Wiring

8 pin connector	12 pin connector	Wire	Function
1	H	white	(+) power supply
2	J	brown	(+) power supply
3	K	green	output signal
4	A	yellow	ground
5	G	grey	ground
6	B	red (1 mm²)	(+) heating
7	C	blue (1 mm²)	(–) heating
not connected	casing	yellow/green and shield	cable shield

Dimensions





Environmental Conditions

Operating temperature ..... –35..+80 °C
Relative humidity ..... 0..100%
Maximum wind speed ..... 60 m/s

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