

Cup Anemometer *economy*



Description

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

Driven by the flow, the cups are set into rotation. A magnetic switch scans a magnet in the interior of the sensor and provides a frequency linearly dependent on the wind speed.

Technical Data

Sensor

Sensing element	Cup rotor
Transducer	Hall effect sensor with frequency output
Output signal	0..50 m/s = 0..200 Hz
Pulse level	L0 = < 0.5 V
	HI = V_{Supply}
Resolution	0.25 m wind run
Accuracy.....	0..10 m/s ± 0.3 m/s
	> 10 m/s ± 3% of reading
Starting threshold.....	0.5 m/s

Rotor

Type.....	3 conical cups
Material	Fibre reinforced polycarbonate
Outside diameter	ø210 mm
Bearings.....	Stainless steel ball bearings

Power Supply

Operating voltage	4..24 VDC
Current consumption	3 mA at 5 V, unloaded

Heating

Heating power The sensor is not heated.

Casing

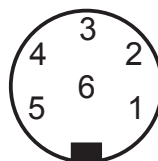
Material Anodized aluminium
 Protection class IP 55 in upright position
 Dimensions $\varnothing 36 \times 255$ mm
 Weight 0.2 kg, cable exclusive
 Mounting External PG21 thread with $\varnothing 29$ mm outside diameter

Electrical connection

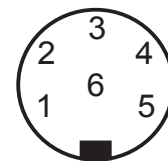
Connection to the sensor 6 pin circular connector DIN 45322
 Connection to data logger **wilog303/306** 6 pin circular connector DIN 45322 (optional)
 Cable 3×0.5 mm², shielded

Wiring

6 Pin Connector	6 Pin Connector	Wire	Function
2	2	white	(+) power supply
6	6	brown	ground
3	3	green	output signal
not connected	casing	yellow/green and shield	cable shield



6 pin connector:
soldering side of the female connector



6 pin connector:
soldering side of the male connector

Environmental Conditions

Operating temperature -30..+65 °C
 Relative humidity 0..100%



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