Digital wind speed and direction sensor

KVT 60A

Applications

- General Metereology
- Wind Energy
- Construction sites
- Offshore Oil and Gas
- Aviation
- Sports

Features and Benefits

- Low-threshold starting speed
- Resistant to all weather conditions
- Anodized aluminum and plastic
- Different output signal
- Type calibrated in wind tunnel
- Minimal maintenance
- Suitable for national met office

KVT60A is a combined rotation sensor for wind speed and wind direction. It is made of naturally anodized aluminium.

For the wind speed sensor, a three-cup Robinson's cross is used, which, with a perforated rotated disc and optoelectonic transducer gives frequency proportional to the wind speed.

For the wind direction part of the sensor, a square rudder is mounted outside, and inside on the axis, a coding disc is fixed. In combination with the optoelectronic elements, this gives coded wind direction data. The six channel Gray's angle coding system is used in the directional part of the transmitter.

On the top of the wind speed axis there is a ertalyte radial bearing and on the bottom there is a double sapphire bearing. The directional axis is mounted on two ball bearings.

The electronic elements are protected from overvoltage by resistors and zener diodes. The normal additional load (icing) cannot damage the transmitter.

On the bottom of the sensor there is an aperture of 25 mm in diameter and 40 mm in depth for mounting the sensor. There is also a ten pin waterproof connector. The sensor can be delivered with wind tunnel calibration.

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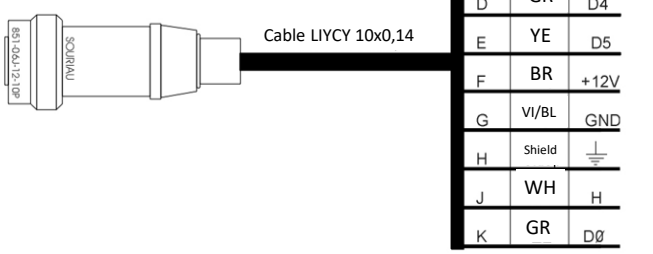
Technical specifications

	WIND SPEED	WIND DIRECTION
Measuring range	0 m/s – 50 m/s	0° to 360°
Starting speed	0.1 m/s	0.05 m/s
Distance constant	aprox. 3m fluid flow past the sensor required to cause it to respond to 63,2%	
Accuracy	+/- 0,5 m/s	+/- 2,75°
Resolution	0,1 m/s	5,5°
Sensitivity	20 imp/m	
Measuring system	stroboscopic disk, optoelectronic transducer	optoelectronic transducer
Output signal	pulse signal frequency 1 kHz at 50 m/s	6-bit grey code
Optional output signal	voltage output 0…10V, current output 4…20 mA, RS232, RS485 serial communication (9600/8,N,1) or SDI	
Power supply	12 VDC	
Power consumption	12 mA	
Operating temperature	-40 to + 60 ° C	
Storage temperature	-50 to + 80 ° C	
Connector	Souriau, 10-pole, weatherproof	
Cable	9 wire, shielded	
Dimensions	ϕ 600 x H 310 mm	
Mass	600 g	
Mounting	mounting bracket, bore ϕ 25mm X deep 40mm	
Material	body - anodized aluminium Robinson's cup - UV stabilized plastic	

Cable connection

The sensor connector must be facing SOUTH

View from below
(soldering side)



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