Digital wind direction sensor

DSV 39A

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
- Different output signal
- Minimal maintenance
- No individual calibration required
- Suitable for national met office

DSV39A is a rotational, digital, optoelectronic sensor to measure wind direction.

DSV39A has a square plate and a counterweight mounted on a central shaft to measure the wind direction. The shaft is connected to an optical rotary encoder, which convert the angle into a 6-bit Gray code. All electronic components are protected from power surges with resistors and Zener diodes. This system guarantees accuracy to within 5,5 degrees. All parts of the device are made either from the stainless steel and naturally anodized aluminium.

The shaft is supported by two bearings. The upper one is radial ertalyte while the lower one is a double sapphire bearing. On the underside of the instrument is a carrying bracket and a watertight connector. The bore of the bracket is 25 mm wide by 40 mm deep.

DSV39A is usually paired with a DHV39 wind speed sensor. In most cases the two instruments are mounted on a single cross-beam with a junction box in the middle and a lightning rod for protection. Individual instruments are installed separately, which makes power surges less likely to damage them. The instrument is connected via a 10 wire shielded cable either directly to the measuring equipment or through a junction box. The instrument casing is grounded through the shielding of the cable. Maintenance is virtually unnecessary and only needs to be carried out when the performance of the instrument has changed significantly. Extra stress from icing cannot damage the instrument.

Digital wind direction sensor

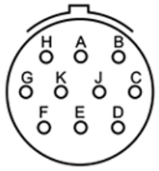
DSV 39A

Technical specifications

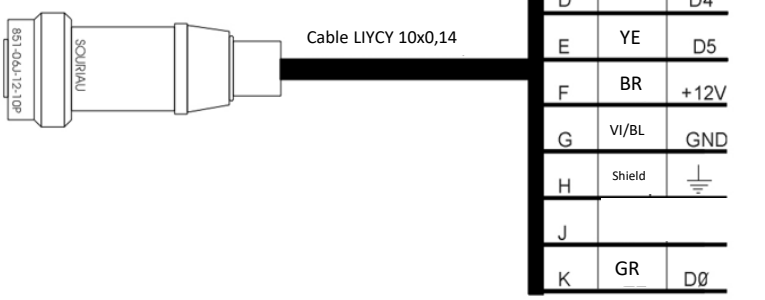
Measuring range	0° to 360°
Starting speed	0.05 m/s
Accuracy	+/- 2,75°
Resolution	5,5°
Measuring system	optoelectronic transducer
Output signal	6-bit Gray code
Option output signal	voltage output 0…10V or current output 4…20 mA
Power supply	12 VDC
Power consumption	12 mA
Operating temperature	-40 to + 60 ° C
Storage temperature	-50 to + 80 ° C
Connector	Souriau, 10-pole, weatherproof
Cable	9 wire, shielded
Dimensions	~ ϕ 600 mm x H 300 mm
Mass	500 g
Mounting	mountiung bracket, bore ϕ 25mm X deep 40mm
Material	anodized aluminium

The sensor connector must be facing SOUTH

Cable connection



View from below
(soldering side)



AMES d.o.o.
Na Lazih 30
SI-1351 Brezovica
Slovenia, Europe

T: +386 1 365 70 86
F: +386 1 365 71 02
E: info@ames.si

www.ames.si