

UNIDIRECTIONAL (VERTICAL) WIND SPEED SENSOR EGH 140



Highlights:

The EGH 140 is a rotating type wind speed sensor and gives accurate wind speed data for any one axis of a chosen coordinate system. The vane is made from a highly resistant armored artificial resin (kevlar).

The vane drives a small DC generator inside the case, whose output is directly proportional to the axis speed and almost directly to the wind component that flows in parallel with the axis. The polarity of the output depends on the direction of the wind.

The EGH 140 is used in conjunction with other measuring devices from the AMES product line, to measure unidirectional wind speed in meteorology, dangerous crosswinds on large road or rail bridges, construction cranes, cable cars, in tunnels, in athletics etc. For communication, the sensor has a tri-pin waterproof connector over which, by use of a two wire shielded cable, wind data can be transmitted. The electrical resistance of the cable has to be accounted for when connecting the device. If the sensor is far from the measuring instrument, it is advisable to integrate the electronic circuitry to convert the signal into a standard current signal of 0 - 20 mA (4- 20 mA) or to digitalize it. The cable shield ensures protection for the sensor from over voltages. If long telephone or signal cables, where adequate protection is not possible, are used, over voltage protection elements are installed on both ends of the cable.

All elements of the sensor are made from materials immune to normal atmospheric conditions. The axis of the vane is made from stainless steel and spanned between two stainless steel ball bearings. The sensor should be overhauled when the starting speed becomes noticeably larger.

When mounting the sensor, care should be taken to mount it facing the right direction or the data gained will be useless.

TECHNICAL DATA:

WIND SPEED	
Measuring ranges	-50 m/s .. +50 m/s
Starting speed	0.1 m/s
Accuracy and linearity	+/- 0.5 m/s
Resolution	0.1 m/s
Output signal (mV)	aprox. 50 * wind speed
Operating temperature	-50°C .. +50°C
Connection:	4 line wire, Souriau
Dimensions	Ø 220 mm, height 160 mm