

Weather Station Vega



Features

- * Integrated weather station for wind speed and wind direction
- * Maintenance-free measuring element with permanent air density compensation
- * Operation under severe climatologically conditions and wind speed up to 80 m/s
- * Simple installation on a 50 mm standard pipe and central plug connector
- * Operational condition from $-40\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$
- * Rugged and corrosion-free housing with integrated plug connector
- * Serial interface RS485
- * MTBF of 10 years
- * Automatic cyclic self-testing and reporting
- * Compact and completely self-contained meteorological instrument.
- * All components are enclosed in a sealed, weather-proof cylinder.

Applications

The Vega station is a compact anemometer which contains a microcontroller for receiving and transmitting weather parameters. The VEGA reports wind speed and direction and besides it needs an external measurement of air temperature and barometric pressure. The Vega is ideal to replace standard mechanical anemometers.

Standards

- | | | | |
|-----------------------------|---|---------------------|----------------------|
| * Standard of construction: | VDE 100 | * Shock resistance: | BV 0430, diagram 3 |
| * Low voltage guideline: | 73/23 EWG and VDE 100 | * Salt spray test: | MIL STD 810 D |
| * EMV: | DIN EN 50081-1
VG95373
EC 630004-3,-6 | * Class protection: | IP 67 |
| * ESD / Burst: | EC 630004-2,-4 | * Message format: | HEX or NMEA 0183 |
| * Vibration: | BV 0440, diagram 1,8,9 | * Interface: | RS485 (EIA standard) |

Technical Data & Dimensions

General

Operation temperature range	-40 °C to +70 °C
Storage temperature	-50 °C to +90 °C
Interface	RS485
Power supply	+15 VDC / 300 mA -15 VDC / 300 mA +5 VDC / 50 mA
Isolation voltage	500 VDC

Measurement Specifications

Wind speed

Range	0...80 m/s
Accuracy (RMS)	0.5 m/s \pm 5 % of actual wind
Resolution	0.1 m/s

Wind Direction

Azimuth	0...360° (no electrical gap)
Accuracy (RMS)	\pm 3°
Resolution	1°

Important Note:

The Vega station uses a half duplex communications protocol. The station works as a slave instrument, waiting on standby mode for the ambient air temperature and barometric pressure data to calculate the wind speed parameter and respond by transmitting the wind speed and wind direction data.

Mechanical

Class of protection:	IP 67
Height:	165 mm
Diameter:	105 mm
Weight:	1.0 Kg
Mast adapter:	51 mm

Note: See also mechanical drawings for installation

Accessory (not included)

Mating connector for cable

Version

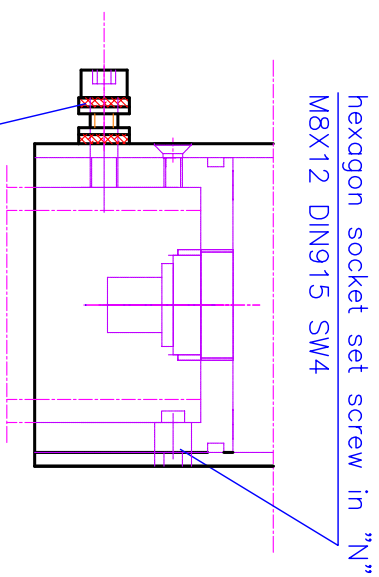
Vega

Compact and robust anemometer for wind speed and wind direction, with serial interface RS485

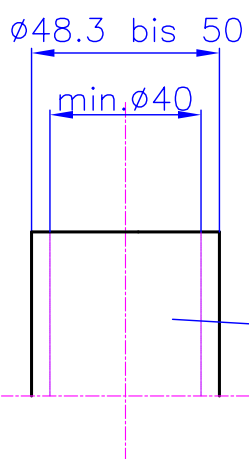
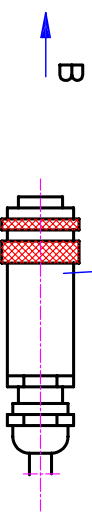
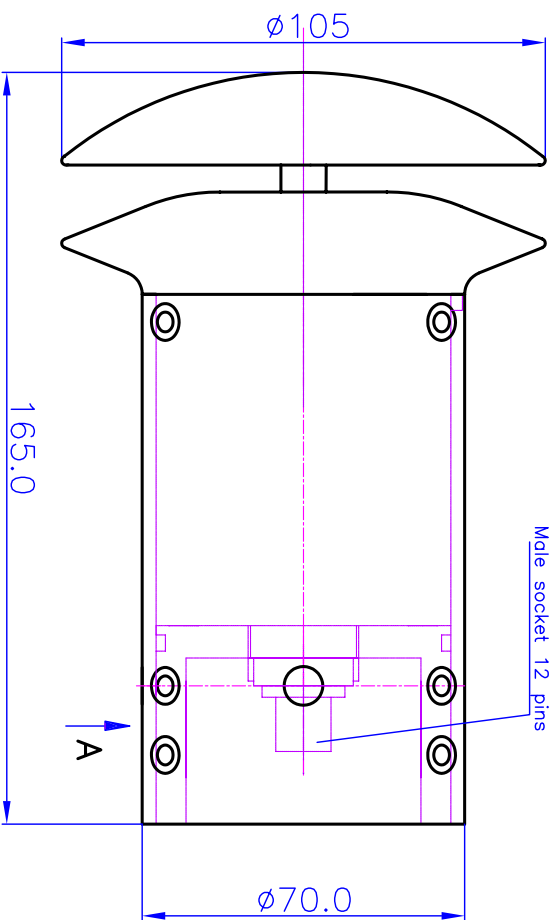
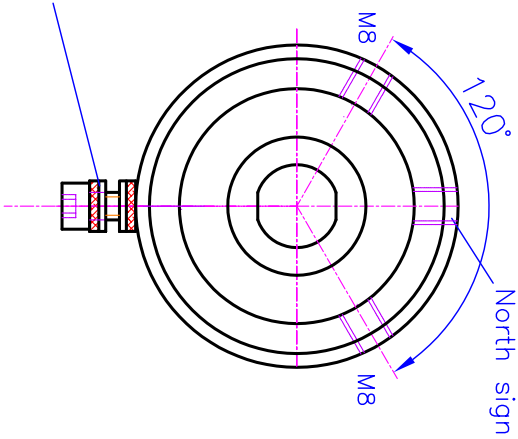
Note:

The standard communication protocol is in HEX, but it is also available in NMEA 0183 (send us a request for detail about communication protocol)

View from A



View from B



07.11.05

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Vega

ELBW
TECHNOLOGY SA

4.01.030