

# ULTRASONIC ANEMOMETER WNT



MESA

## GENERAL

The WNT Ultrasonic Anemometer accurately measures wind speed and wind direction without any moving parts. This rugged all electronic, microprocessor design offers unmatched sensitivity for up to 60m/s windspeed and 0..359° direction. Periodic maintenance is not necessary.

Counting the duration time of a sonic burst travelling between two transducers at high frequency leads to a precise value for speed and direction.

Measured values and the WNT's operational conditions are communicated over a RS-232 serial interface. Additional voltage outputs for velocity and direction are available should analog interfacing be required. The integrated heater is automatically activated by low air temperature, clearing the transducers and maintaining the WNT measuring accuracy over -40..+60°C temperature operation range. Power requirement is 9..36V DC.

Showing the WNT data a dedicated LC-display is available as well as a choice of different software with numbers of features.

## BENEFITS

- No bearing to wear out or replace**
- RS-232 or optional RS422/485 interface,**
- 0...1/5/10 V or 0/4..20mA analog output**
- Automated system diagnosis**
- Easy installation**
- Rugged IP 67 housing**
- 0..40/60 m/s velocity ranges available**
- Recalibration not necessary**
- wide power supply range**



## FEATURES

- Wind speed/wind direction in one unit**
- No moving parts**
- Industrial and military design**
- Computer compatible interface**
- Analog signal output**
- Integrated microcomputer**
- Networking capability**

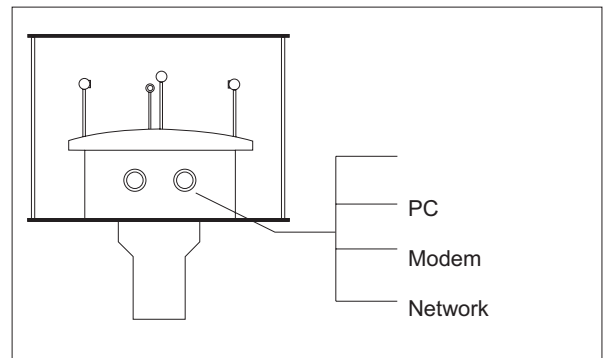
## APPLICATIONS

- Coastal, synoptic or remote meteorological stations**
- Air quality studies**
- Oceanography**
- Windturbine and wind/solar site studies**
- Military systems**
- Mobile systems**

# SPECIFICATION

Power supply	9..36 V DC/0.4 A
Serial data output Analog output	RS232/RS422/485* 0..1/5/10VDC, 0/4..20mA*
Dimensions	Ø290 mm, Height 320 mm
Protection class	IP67 (NEMA 4x)
Weight	3,6 kg
Termination	Euchner connectors
Mounting	Ø42mm socket
Operating temperature	-40°C..+60°C
Serial data protocol	ASCII string
Wind velocity	0..40 m/s 0..60 m/s
Wind direction	0..359°
Resolution	0.1 m/s 1°
Accuracy	V= ±0.3 m/s (<20m/s) D= ±2° @ V >0.3m/s

\* optional



# DISPLAY / DATAPROCESSING

A choice of several powerful programmes are available running under Microsoft WINDOWS. Programm allows flexible diagram set by individual needs. Please ask for detailed leaflet.

For control rooms a LC-display is available for panel mounting. This unit offers additional control features. More information you will find in Smart Display Unit. SDU.



## Serial interface data:

\* Start character  
Zx.y Status-and error code  
Vxx.x Wind velocity  
Dxxx Wind direction  
CR LF Carriage Return, Line Feed

**Example: \*Z4.1,V25.0,D186**

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