

WS-15A ULTRASONIC WIND SYSTEM



The WS-15A wind system offers a cost effective solution for wind measurement and monitoring. Comprising the WindSonic ultrasonic no-moving parts wind sensor, which requires no servicing, bearing replacement or re-calibration. It has a low start-up speed and true 0° to 360° operation.

At the heart of the WS-15A system the display unit has the following features:

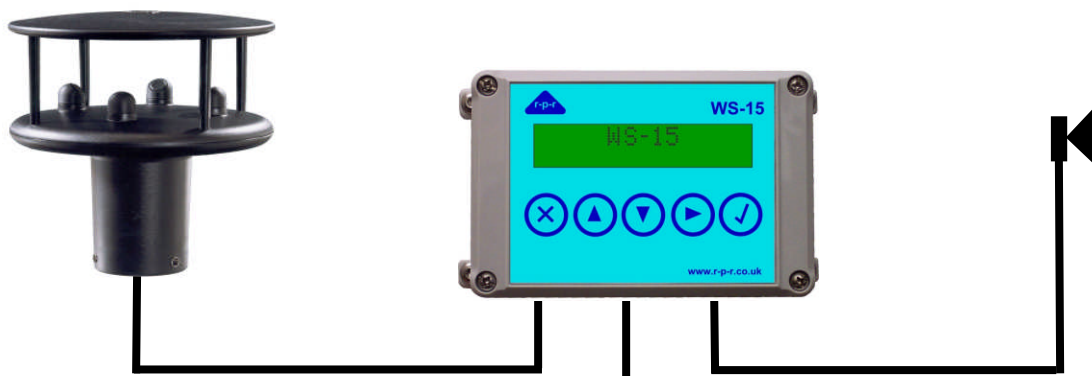
- Compact size
- Rugged construction, IP65 rated
- Clear alpha-numeric display
- Display backlight
- Display provides user prompts
- Easy to operate
- Simple to install
- Accepts RS232 or RS485 input



A detailed description of the standard system follows, but it can be configured to your particular requirements. Please contact us to discuss your application.

WS-15A WIND SYSTEM comprises:

- WindSonic sensor 1 (ultrasonic sensor with RS232 output)
- Mounting mast (1.6m aluminium)
- RS232 cable (6m connects sensor to display)
- Display Unit (IP65 rated)
- External alarm sounder (plus 3m cable connects sounder to display)



The WS-15A system is ideal for accurate wind measurement and display in applications such as:

- Construction
- Cranes
- Agriculture
- HVAC
- Environmental and Pollution control
- Portable & Roadside weather stations
- Utilities
- Marine
- Health and Safety
- Tunnels

WS-15A ULTRASONIC WIND SYSTEM



SPECIFICATION

SENSOR

PHYSICAL

Size: 142mm diameter x 160mm

Weight: 0.5kg

Mounting: Pipe mounting 1.75 inches (44.5mm) diameter

Material External: Acrylate Styrene Acrylonitrile, Polycarbonate blend

PERFORMANCE

Wind speed range: 0.1m/s to 60 m/s

Wind speed accuracy: +/-2%

Wind direction range: 0-360° (no dead band)

Wind direction accuracy: +/- 3°

OUTPUT

Defaults:-

Comms: RS232 (RS485 option available with upgrade to sensor 2 – contact Richard Paul Russell Ltd for more information)

Output rate: 1 per sec

Measure: Wind speed and direction

Serial output format: Polar

Serial output baud rate: 9600

POWER

Power requirements: 9-30 Vdc at 15 mA typical

ENVIRONMENTAL

Operating temperature range: -40°C to +70°C

Operating humidity: <5% to 100%

MISCELLANEOUS

MTBF: 10 Years

Quality system: Manufactured within ISO9001 quality system.

DISPLAY

PHYSICAL

Mounting: Surface mounted

Dimensions:

Width: 140mm (including mounting feet)

Depth: 100mm (including cable gland)

Height: 65mm

Panel Dimensions: 120mm x 80mm

Weight: 0.35kg

Material: ABS Polycarbonate blend

ENVIRONMENTAL

Operating Temperature Range: -10°C to +70°C

Sealing: IP65

POWER

Power requirement: 9-30Vdc

Current at 12Vdc: 20mA – 35mA (backlight on)

Supply Input protection: Polarity reversal protected (internal fuse)

Connection: Internal lever action terminals

DISPLAY OPERATION

Display: Two line 20 character dot matrix super-twist LCD with backlight

Operation: 5 keys on front of unit for menu navigation, data entry and control functions

Functions: Wind Speed, wind direction, wind speed high/low alarm with hold on/off period, sensor alignment adjustment, contrast, backlight, sensor selection.

Wind direction display: Digital 3 digits with cardinal points

Wind speed display: Digital display with units selection from kts, mph, km/h, fpm, m/s

Output: Relay driver output to sounder

MAST

Dimensions: Length 1.6m, diameter 44.5mm (1.75in.) drilled and tapped to fit WindSonic sensor

Material: Anodised aluminium

Weight: 1.83kg

SOUNDER

PHYSICAL

Mounting: Surface mounted

Dimensions:

Width: 100mm

Depth: 80mm

Height: 110mm

Weight: 0.25kg

PERFORMANCE

Sound Output: 104dB(A) @ 1m

Volume adjustment: 18dB(A)

Sound tones: 32 adjustable by internal switch setting

POWER

Power requirements: (12V – 35Vdc) at 25mA

Connection: Internal terminals via sealed gland

ENVIRONMENTAL

Operating temperature: 25°C to + 40°C

Relative humidity: 95% at 40°C

Sealing: IP65 rated

The manufacturers reserve the right to amend the specification without prior notice

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