



WATER & AIR

Windvane Marine Version



Robust



Long life and reliable operation



Gravity fastened wind arm



A precision wirewound potentiometer mounted in the same all-weather, corrosion resistant case as the Porton Windvane. The potentiometer has the lowest possible torque consistent with long life and reliable operation. The small gap at North is filled with an insulating material to ensure smooth operation over the full 360°. The vane arm is attached by a unique gravity fastener, giving rapid and reliable attachment and release in portable applications. In the marine version, body/fin sealing is enhanced and a touching shaft-seal is fitted above the upper (replaceable) bearing for extra protection.

Performance

Maximum wind speed:	Over 75 m/s (150 Kts, 170 mph).
Threshold:	0.6 m/s (1.2 Kt, 1.4 mph.) - the fin will commence movement when aligned at 45° to the flow.
Response:	Distance constant: 2.3meters Damping ratio: 0.2
Range:	360° mechanical angle, full circle continuous rotation allowed.
Backlash	±½ fin removed and replace (no measurable backlash movement during use).
Life:	5 x 10 ⁷ cycles (10 years of typical exposure).
Accuracy:	±2 obtainable in steady winds over 5m/s.
Temperature range:	-50 to +70C (de-icing heater to order).

Electrical

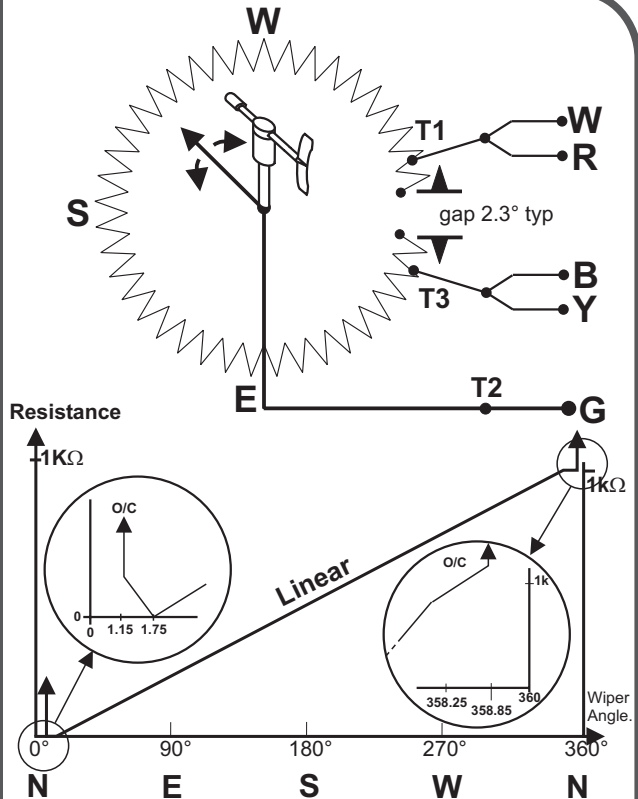
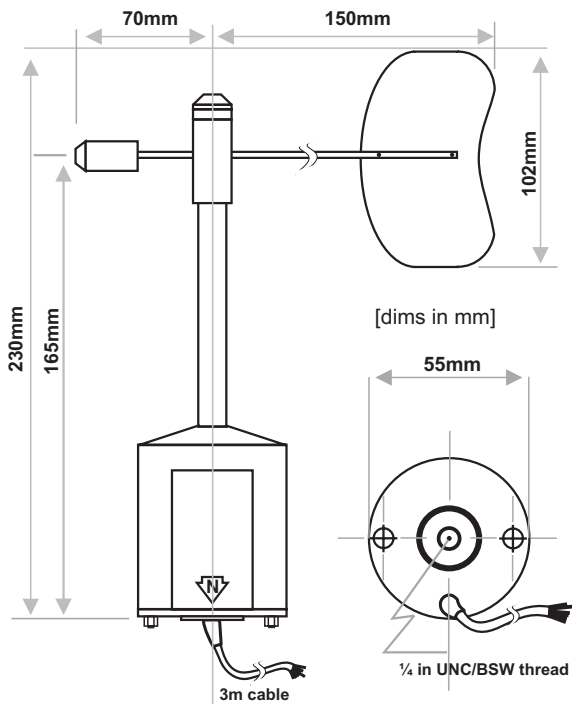
Potentiometer resistance:	1000 Ohms ±10%.
Maximum dissipation:	0.5W, -50 to +20°C) (derate linearly to 0.25W at +70°C).
Wiper current:	20mA max.
Supply voltage:	20V max.
Case to pot voltage:	125V max.
Temperature coeff:	+50 ppm/°C.
Electrical continuity angle:	357.7° +1.5° (2.3° gap at north).
Electrical variation angle:	356.5° +1.5° (3.5 deadband).
Resolution:	±0.2°
Repeatability:	±0.5°



SPECIFICATIONS

Weight	Packed weight	Packed dims	Fixing	Materials
310g	700g	250 x 160 x 160mm (one instrument c/w vane arm F20)	¼ in. UNC/BSW thread (std. tripod screw). Taper fitting also available	¼ in. UNC/BSW thread (std. tripod screw). Taper fitting also available
Terminations		Connections		
3 meters of 6 core cable standard (other lengths to order)		Terminal 1 : red, white. Terminal 2 : green (wiper) Terminal 3 : blue, yellow (case : black). When the wind changes from N through E, S, W, to N, the wiper moves along the track from terminal T3 to terminal T1		

DIMENSIONS



ORDERING INFORMATION

Sensor

W200P/DI/M
W200P/DI/M/I

Wind vane with 3m cable
Wind vane with 3m cable and DataHog
connector

Accessories

ACC/12
ACC/13
ACC/13A

Dual Arm Pole mount
Single Pole top mount for 1 wind sensor
Pole side mount for 1 wind sensor

Meters and dataloggers (see separate datasheet)

SDL 5000 series
SDL 2900 series

DataHog datalogger
MiniMet datalogger

DataHogs also available for 'plug-in' sensors. Please enquire.

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