

4. SPECIFICATION

	WindMaster	WindMaster Pro
Outputs		
Output rate	1, 2, 4, 8, 10, 16, 20, (32 option) Hz	1, 2, 4, 8, 10, 16, 20, 32 Hz
Sample rate (automatically selected)	32 or 40 Hz	32 or 40 Hz
Units of measure	m/s, mph, KPH, knots, ft/min	m/s, mph, KPH, knots, ft/min
Format	UVW or Polar	UVW or Polar
Averaging	Flexible 0 - 3600 s	Flexible 0 - 3600 s
Wind Speed		
Range	0 - 45 m/s	0 - 65 m/s
Resolution	0.01 or 0.001 m/s	0.01 or 0.001 m/s
Accuracy (12 m/s) (Standard)*	< 1.5% RMS	< 1.5% RMS
Accuracy (12 m/s) (to special order)* #	< 1.0 % RMS	< 1.0 % RMS
Direction		
Range	0 – 359.9°	0 – 359.9°
Resolution	1 ⁰ or 0.1 ⁰	1 ⁰ or 0.1 ⁰
Accuracy (12 m/s) (Standard)*	2°	2°
Accuracy (12 m/s) (to special order)* #	0.5°	0.5°
Speed of Sound		
Range	300 -370 m/s	300 -370 m/s
Resolution	0.01 m/s	0.01 m/s
Accuracy	< ± 0.5% @ 20°C 9 -30 V dc, (55 mA @ 12 V dc) (excluding analogue outputs)	< ± 0.5% @ 20 °C 9 -30 V dc, (55 mA @ 12 V dc) (excluding analogue outputs)
Power requirement		

Digital output		
Protocol (ASCII and Binary)	RS232, RS422, RS485 network up to 8 anemometers	RS232, RS422, RS485 network up to 8 anemometers
Baud rates	2400 - 57600	2400 - 57600
Analogue outputs (optional)		
4 channels	Resolution 12 or 14 bit	Resolution 14 bit
Selectable range	User selectable full scale wind speed	User selectable full scale wind speed
Output type	0-20 mA, 4-20 mA, 0-5V, $\pm 5V$, $\pm 2.5V$	0-20 mA, 4-20 mA, 0-5V, $\pm 5V$, $\pm 2.5V$
Analogue inputs (optional)		
Up to 4 single-ended or 2 differential	Resolution 12 or 14 bit	Resolution 14 bit, plus PRT 100ohm (option)
Input range	$\pm 5 V$	$\pm 5 V$
Sonic temperature		
Range	-40 °C to +70 °C	-40 °C to +70 °C
PRT		
Resolution	Not Applicable	0.01°C
Measurement Accuracy	Not Applicable	$\leq \pm 0.1$ °C (-40 to +50°C)
Measurement Accuracy	Not Applicable	$\leq \pm 0.15$ °C (+50 to +70°C)
General		
Weight	1.0 kg	1.7 kg
Size	750 mm x 240 mm	750 mm x 240 mm
Environmental	IP65	IP65
Operating temperature	-40 °C to +70 °C	-40 °C to +70 °C
Humidity	< 5 % to 100 %	< 5 % to 100 %
Precipitation	Operation up to 300 mm / hour	Operation up to 300 mm / hour
EMC	Emissions BS EN 61000 - 6 - 3 Immunity BS EN 61000 - 6 - 2	Emissions BS EN 61000 - 6 - 3 Immunity BS EN 61000 - 6 - 2

* Accuracy specification applies for wind speed up to range maximum, and for wind incidence up to $\pm 30^\circ$ from the horizontal.

Custom calibration (to be specified when ordering, or unit can be returned for calibration) - Wind tunnel calibration is in accordance with ISO 16622 and traceable to national standards.