Measurement *Response Time*	Model	Units	Operational Range	Resolution	Accuracy (+/-)	Specification Range
Wind Speed (Air Velocity) *1 second*	All Models	**m/s**	0.4 to 60.0 m/s	0.1	**Larger of 3% of reading or least significant digit**	0.4 to 40.0 m/s
		ft/min	59 to 11,948 ft/min	1		59 to 7877 ft/min
		km/h	1.0 to 218.0 km/h	0.1		1.0 to 144.0 km/h
		mph	0.8 to 135.0 mph	0.1		0.8 to 89.0 mph
		knots	0.6 to 118.3 kt	0.1		0.6 to 78.0 kt
		Beaufort	0 to 12 B	1		0 to 12 B
1 inch diameter impeller with precision axle and sapphire bearings. Off-axis accuracy -1% @ 5º off-axis; -2% @ 10º; -3% @ 15º. Calibration drift < 1% after 100 hours use at 16 MPH / 7 m/s. Sustained operation above 60 MPH / 27 m/s will wear impeller rapidly and may cause destruction of impeller. Replacement impeller (NK PN-0801) may be field-installed without tools (US Patent 5,783,753).						
Air Flow *1 second*	4100 4200	**cfm**	0 to 99,999 cfm	1	**3% of reading**	0 to 99,999 cfm
		m^3/h	0 to 99,999 m^3/h	1		0 to 99,999 m^3/h
		m^3/m	0 to 99,999 m^3/m	1		0 to 99,999 m^3/m
		m^3/s	0.0 to 9,999.9 m^3/s	0.1		0.0 to 9,999.9 m^3/s
		L/s	0 to 99,999 L/s	1		0 to 99,999 L/s
Automatically calculated from Air Velocity measurement and user-specified duct shape (circle or rectangle) and dimensions (units: in, ft, cm or m). Maximum duct dimension input: 258.0 in / 21.5 ft / 655.3 cm / 6.55 m.						
Wind Direction / Forward Heading *1 second*	4500	**°**	360°	1	5°	0 to 360°
		Cardinal Points	360°	16 Points	5°	0 to 360°
2-axis solid-state magnetoresistive sensor mounted perpendicular to unit plane to permit operation while measuring wind speed. Declination/variation adjustable for True North readout. Accuracy of measurements dependent upon unit's vertical position. Self-calibration routine eliminates magnetic error from batteries or unit and must be run after every full power-down (battery removal or change).						
Temperature *1 second*	2000 2500 3000 3500 4000 4100 4200 4250 4300 4500	**°F**	-49.0 to 257.0 °F	0.1	1.8 °F	-20.0 to 158.0 °F
		°C	-45.0 to 125.0 °C	0.1	1.0 °C	-29.0 to 70.0 °C
Measures air, water and snow temperature. Thermally isolated, hermetically sealed, precision thermistor mounted externally (US Patent 5,939,645). Calibration drift negligib						
Relative Humidity *1 minute*	3000 3500 4000 4100 4200 4250 4300 4500	**%RH**	0.0 to 100.0 %	0.1	3.0 %RH	5.0 to 95.0 % non-condensing
Polymer capacitive humidity sensor mounted in thin-walled chamber external to case for rapid, accurate response (US Patent 6,257,074). (To achieve stated relative humidity accuracy, unit must be permitted to equilibrate to external temperature when exposed to large, rapid temperature changes and must be kept out of direct sunlight.) Calibration drift +/- 2% over 24 months. Relative humidity may be recalibrated at factory or in field using Kestrel Humidity Calibration Kit (NK PN-0802).						
Evaporation Rate *1 second*	4300	**$lb/ft^2/hr$**	0.00 to 1.00 $lb/ft^2/hr$	0.01	Typical: ±0.02 $lb/ft^2/hr$	0.00 to 1.00 $lb/ft^2/hr$
		$kg/m^2/hr$	0.00 to 5.00 $kg/m^2/hr$	0.01	Typical: ±0.1 $kg/m^2/hr$	0.00 to 5.00 $kg/m^2/hr$
Calculated from the primary measurements of wind speed, air temperature, relative humidity and concrete temperature. Requires user measurement and entry of concrete temperature obtained with an accurate IR or probe thermometer (°F or °C, not included with Kestrel 4300). For maximum accuracy, readings should be taken 20 inches above pour surface with the thermistor shaded, and averaged for 6-10 seconds using built-in averaging function. Maximum accuracy: ±0.06 $lb/ft^2/hr$ or ±0.3 $kg/m^2/hr$.						
Pressure *1 second*	2500 3500 4000 4200 4250 4300 4500	**inHg**	0.3 to 32.5 inHg	0.01	0.05 inHg	At 77.0 °F, 22.1 to 32.5 inHg
		hPa / mb	10.0 to 1100.0 hPa / mb	0.1	1.5 hPa / mb	At 25.0 °C, 750 to 1100hPa / mb
		PSI	0.15 to 16.0 PSI	0.01	0.02 PSI	At 77.0 °F, 10.9 to 16.0 PSI
Monolithic silicon piezoresistive pressure sensor with second-order temperature correction. Maximum error over temperature range 32 to158 °F (0 to70°C) and pressure range 600 to 1100hPa is +\- 0.074 inHg +\-2.5hPa. Pressure sensor may be recalibrated at factory or in field.						
Altitude *1 second*	2500 3500 4000 4200 4250 4300 4500	**ft**	-6000 to 30000 ft	1	50 ft	At 77.0 °F, <19,700 ft. Max error +/- 98 ft
		m	-2000 to 9000 m	1	15 m	At 25.0 °C, <6,000 m. Max error +/- 30 m
Temperature compensated pressure (barometric) altimeter.						
Crosswind **Headwind, Tailwind** *1 second*	4500	**mph**	0.8 to 135.0 mph	1	5%	8.5 to 89.0 mph
		ft/min	59 to 11,880 ft/min	1	5%	750 to 7832 ft/min
		km/h	1.0 to 217.3 km/h	0.1	5%	13.7 to 143.2 km/h
		m/s	0.4 to 60.0 m/s	0.1	5%	3.8 to 40.0 m/s
		knots	0.6 to 117.3 kt	0.1	5%	7.4 to 77.0 kt
Calculated from the primary measurements of wind speed, wind direction and target heading. Auto-switching headwind/tailwind indication. Ranges expressed refer to primarywind speed.						
Wind Chill *1 second*	2000 2500 3000 3500 4000 4100 4200 4250 4300 4500	**°F**	0.7 to 135.0 MPH, -49.0 to 257.0 °F	0.1	1.8 °F	1.8 to 89.0 mph, -50.0 to 50.0 °F
		°C	0.4 to 60.0 m/s, -45.0 to 125.0 °C	0.1	1.0 °C	0.4 to 40 m/s, -45.6 to 10.0 °C
Calculated from the primary measurements of wind speed and temperature. Utilizes the NWS Wind Chill Temperature (WCT) Index, revised 2001, with wind speed adjusted by a factor of 1.5 to yield equivalent results to wind speed measured at 10 m above ground. (Specification temperature limits established by WCT Tables.)						
Heat Index *1 minute*	3000 3500 4000 4100 4200 4250 4300 4500	**°F**	0.0 to 100.0 %RH, -49.0 to 257.0 °F	0.1	3.6 °F	70.0 to 130.0 °F, 0 to 100% RH
		°C	0.0 to 100.0 %RH, -45.0 to 125.0 °C	0.1	2.0 °C	21.1 to 54.4 °C, 0 to 100 %RH
Calculated from the primary measurements of temperature and relative humidity. Utilizes the NWS Heat Index (HI) tables. (Specification temperature limits established by HI tables.)						
Dewpoint *1 minute*	3000 3500 4000 4100 4200 4250 4300 4500	**°F**	0.0 to 100.0 %RH, -49.0 to 257.0 °F	0.1	3.6 °F	-20.0 to 158.0 °F, 20.0 to 95.0% RH
		°C	0.0 to 100.0 %RH, -45.0 to 125.0 °C	0.1	2.0 °C	-29.0 to 70.0 °C, 20.0 to 95.0 %RH
Calculated from the primary measurements of temperature and relative humidity. Temperature to which the air would need to be cooled at a constant pressure to become saturated.						
Wet Bulb Temperature *1 minute*	3000 3500 4000 4100 4200 4250 4300 4500	**°F**	-49.0 to 257.0 °F, 0.0 to 100.0 %RH, 8.86 to 32.48 inHg	0.1	3.6 °F	32.0 to 100.0 °F, 5.0 to 95.0% RH, 8.86 to 32.48 inHg, <19700 ft
		°C	-45.0 to 125.0 °C, 0.0 to 100.0 %RH, 300.0 to 1100.0 hPa	0.1	2.0 °C	0.0 to 37.8 °C, 5.0 to 95.0 %RH, -2000.0 to 9000.0 hPa, <6000 m
Calculated from the primary measurements of temperature, relative humidity and pressure. Temperature indicated by a wet bulb psychrometer						
Humidity Ratio *1 minute*	4200 4250	**gpp**	0.000 to 5000.0 gpp	0.1	typical accuracy 10%	-20 to 130°F, 5 to 95% RH, 8.86 to 32.48 inHg
		g/kg	0.00 to 720.0 g/kg	0.01	typical accuracy 10%	-29 to 54°C, 5 to 95% RH, 300.0 to 1100.0 hPa
Calculated from the primary measurements of temperature, relative humidity and pressure. The measure of Grains/lb of dry air, called the humidity ratio, is an indication of the mass of water vapor in a						
Density Altitude *1 second*	4000 4200 4250 4300 4500	**ft**	-49.0 to 257.0 °F, 0.0 to 100.0 % RH, 8.86 to 32.48 inHg	1	246	32.0 to 100.0 °F, 5.0 to 95.0 %RH, 8.86 to 32.48 inHg, <19700 ft
		m	-45.0 to 125.0 °C, 0.0 to 100.0 %RH, 300.0 to 1100.0 hPa	1	75	0.0 - 37.8 °C, 5.0 to 95.0 %RH, -2000 to 9000 hPa, <6000 m
Calculated from the primary measurements of temperature, relative humidity and pressure. Air density converted to equivalent sea level elevation at the International Standard Atmosphere.						

Max/Avg Wind Speed (Air Velocity), Crosswind, Headwind/Tailwind	**All Models**	One-button clear and restart of Max Wind Gust and Average Wind measurement.
Pressure Trend	**2500 3500**	Continuously updating three-hour barometric pressure trend indicator: rising rapidly, rising, steady, falling, falling rapidly.
Data Storage / Display	**4000 4100 4200 4250 4300 4500**	Minimum, maximum, average and logged history stored and displayed for every measured value. 2000-point data logger with graphical display (4200 logs 1600 data points, 4300 logs 1800 points, 4500 logs 1400 data points). Auto data storage; interval settable from 2 seconds to 12 hours. Manual data capture.
Data Upload	**4000 4100 4200 4250 4300 4500**	Requires optional PC interface (NK PN-0830) and provided software. RS-232 connection with USB adapter available.
Display	**1000 2000 3000**	Reflective 3 1/2 digit LCD. Digit height 0.36 in / 9 mm.
	2500 3500	Reflective 4 digit LCD. Digit height 0.36 in / 9 mm.
	4000 4100 4200 4250 4300 4500	Multifunction, multi-digit programmable dot-matrix display.
Display Update	**All Models**	1 second.
Display Backlight	**2000 2500 3000 3500**	Aviation green electroluminescent backlight.
	4000 4100 4200 4250 4300 4500	Choice of aviation green or visible red (4000 & 4500 only) electroluminescent backlight. Automatic or manual activation.
Clock / Calendar	**2500 3500**	Real-time hours:minutes clock.
	4000 4100 4200 4250 4300 4500	Real-time hours:minutes:seconds clock, calendar, automatic leap-year adjustment.
Operational Temperature Range (LCD and Batteries)	**All Models**	The operational temperature range of the liquid crystal display and batteries is 14° F to 131° F / -10 °C to 55 °C. Beyond the limits of the operational temperature range, the unit must be maintained within range and exposed for minimum time necessary to take reading.
Storage Temperature	**All Models**	-22 °F to 140 °F / -30 °C to 60 °C.
Auto Shutdown	**2000 2500 3000 3500**	After 45 minutes of no key presses.
	4000 4100 4200 4250 4300 4500	User-selectable: 15 or 60 minutes with no key presses or disabled.
Languages	**4000 4100 4200 4250 4300 4500**	English, French, German, Italian, Spanish.
Certifications	**All Models**	CE certified. Individually tested to NIST-traceable standards (written certificate of tests available at additional charge).
Batteries	**2000 2500 3000 3500**	CR2032, one, included. Average life, 300 hours of use, +/-depending on backlight use.
	4000 4100 4200 4250 4300 4500	AAA Alkaline, two, included. Average life, 400 hours of use, +/-depending on backlight use.
Environmental	**All Models**	Waterproof (IP67 standard). Drop-tested (MIL.STD.810F; unit only. Substantial impact may damage replaceable impeller.).
Dimensions	**2000 2500 3000 3500**	Unit 4.8 x 1.7 x 0.7 in / 122 x 42 x 18 mm. Case 4.8 x 1.9 x 1.1 in / 122 x 48 x 28 mm.
	4000 4100 4200 4250 4300 4500	Unit 5.0 x 1.8 x 1.1 in / 12.7 x 4.5 x 2.8 cm.
Weight	**2000 2500 3000 3500**	Unit 2.3 oz / 65 g. Case 1.3 oz / 37 g.
	4000 4100 4200 4250 4300 4500	Unit 3.6 oz / 102 g.