

Anemometer



6410

Includes both wind speed and wind direction sensors. Rugged components stand up to hurricane-force winds, yet are sensitive to a light breeze. Includes sealed bearings for long life. The range and accuracy specifications have been verified in wind-tunnel tests. In areas where icing of the anemometer is a problem, drip rings deflect water from the joint between moving parts.

General

Operating Temperature	-40° to +149°F (-40° to +65°C)
Sensor Type	
Wind Speed	Solid state magnetic sensor
Wind Direction	Wind vane and potentiometer
Attached Cable Length	40' (12 m)
Cable Type	4-conductor, 26 AWG
Connector	Modular connector (RJ-11)
Maximum Cable Length	240' (73 m)

Note: Maximum displayable wind speed decreases as cable increases. At 140' (42 m) of cable, maximum displayable wind speed is 135 mph (60 m/s); at 240' (73 m), maximum wind speed displayed is 100 mph (45 m/s).

Material	
Wind Vane and Control Head	UV-resistant ABS
Wind Cups	Polycarbonate
Anemometer Arm	Black-anodized aluminum
Dimensions (length x width x height)	15.0" x 1.5" x 18.0" (381 mm x 38 mm x 457 mm)
Weight	1 lbs. 4 oz. (1.332 kg)

Sensor Output

Wind Direction

Display Resolution	16 points (22.5°) on compass rose, 1° in numeric display
Accuracy	±3°

Wind Speed

Resolution and Units	Measured in 1 mph. Other units are converted from mph and rounded to nearest 1 km/h, 0.1 m/s, or 1 knot
Range	1 to 200 mph, 1 to 173 knots, 0.5 to 89 m/s, 1 to 322 km/h
Accuracy	±2 mph (2 kts, 3 km/h, 1 m/s) or ±5%, whichever is greater
Maximum Cable Length	240' (73 m). Maximum wind speed reading decreases as length of cable from Anemometer to ISS increases. At 140' (42 m), maximum speed is 135 mph (60 m/s). At 240', the maximum is 100 mph.

Input/Output Connections

Black	Wind speed contact closure to ground
Red	Ground
Green	Wind direction pot wiper (20KΩ potentiometer)
Yellow	Pot supply voltage
Wind Speed Translation Formula	1600 rev/hr = 1 mph $V = P(2.25/T)$ (V = speed in mph, P = no. of pulses per sample period T = sample period in seconds)
Wind Direction Translation	Variable resistance 0 - 20KΩ; 10KΩ = south, 180°

Package Dimensions

Product #	Package Dimensions (Length x Width x Height)	Package Weight	UPC Codes
6410	17.75" x 10.50" x 3.00" (451 mm x 267 mm x 76 mm)	2.0 lbs. (.9 kg)	011698 00237 5