Wind Speed and wind Direction Sensor

METEOROLOGICAL SENSOR DATASHEET

Balaji Hydro Met Wind Direction Sensor is designed for knowing the wind direction measurements. Easy to deploy, it provides high precision with low maintenance. 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

- Single device or part of an automatic weather station
- Very reliable, and robust
- high-quality material
- Easy installation

Sensor - VIEW

PROFESSIONAL LINE	SPECIFICATION
Model	BHM-S-WSWD
Material	UV-resistance ABS (wind vane and control head) Polycarbonate (wind cup) Black -anodized aluminium (Arm)
Wind Speed Type	Solid state magnetic Sensor
Speed Resolution	Measured in 1 mph. Other units are converted from mph and rounded to nearest 1 km/h, 0.1 m/s, or 1 knot
Speed Range	to 200 mph, 1 to 173 knots, 0.5 to 89 m/s, 1 to 322 km/h
Speed Accuracy	±2 mph (2 kts, 3 km/h, 1 m/s) or ±5%, whichever is greater
Wind Direction Type	Wind vane and potentiometer
Direction Resolution	16 points (22.5°) on compass rose, 1° in numeric display
Direction Accuracy	±3°
Attached Cable Length	12 meter / (40')
Cable Type	26 AWG
Dimension (L x W x H)	15.0" x 1.5" x 18.0" (381 mm x 38 mm x 457 mm)
Weight	1 lbs. 4 oz. (1.332 kg)

APPLICATION - VIEW

- Wind Monitoring
- Tunnel wind monitoring
- Wind Ross Analysis
- Meteorological Study
- Forecast Predication
- Climate change studies

SENSOR WIRE COLOR CODE - VIEW

Black-> Wind speed open drain 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 periods T = sample period in seconds)*
Wind Direction Translation-> Variable resistance 0 - 20KΩ;
10KΩ = south, 180°

Note: Maximum displayable wind speed decreases as cable increases. At 140' (42) 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).