

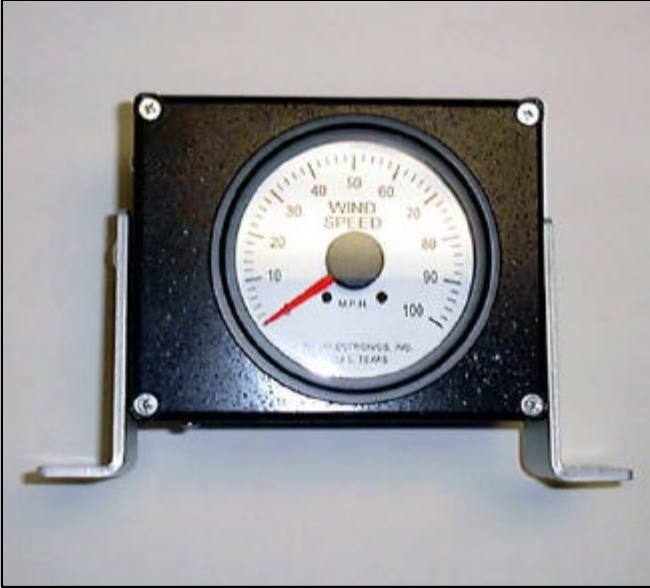


Texas Electronics, Inc.

The Gold Standard in Weather Instrumentation Since 1957

Wind Speed Indicating System

Model 2-200



Description

The Model 2-200 Wind Indicating System is an extremely accurate, low cost wind measuring system. This system consists of a Model TV-114 anemometer and a dial indicator. No external power source is required, as the system is self-generating. This feature makes the Model 2-200 ideal for mobile applications, such as cranes, or in remote applications where power source access is limited or not available.

The TV-114 Wind Speed Sensor is a rugged sensor consisting of a lightweight three-cup anemometer mechanically coupled to a brushless precision AC generator located within a gold-anodized aluminum housing. The exterior of the sensor helps prevent corrosion; even in extreme conditions of heat, cold and saltwater environments. The sensor is designed to be as sensitive as possible to light winds, yet strong enough to withstand hurricane force winds.

The indicator utilizes a 0-1 mA DC meter movement contained in a cast aluminum housing with universal mounting brackets. The brackets greatly simplify meter mounting in marine or mobile installations as they provide for top, back or bottom mounting. The indicator can be ordered for any one of four ranges as follows: 0-100 MPH, 0-100 Knots, 0-160 km/hr and 0-50 m/s.

Features & Benefits

- Self-generating system requires no external power source
- Provides for safe operation of wind-affected equipment
- Rugged instruments can withstand extreme conditions
- Extremely accurate readings at economical price
- Mounts easily in a variety of configurations
- Available in a variety of ranges
- Over 30 years in production

Specifications-Complete 2-200 System

| | |
|------------------------------|--|
| Indicator Size: | 4.5" wide x 3.5" high x 2" deep (11.43cm x 8.89cm x 5.08cm) |
| Weight (complete system): | 8 lbs. (3.62kg) with standard 60 ft. cable |
| Cable: | 60 ft. (18.3 m), 2 conductor, 18 gauge |
| Power: | Self generating, no power source necessary |
| Operating Temp: | -20 to 125° F (-29 to 50° C) |
| Storage Temp: | -40 to 160° F (-40 to 70° C) |
| Humidity Limits: | 0 to 100% |
| Finish: | Sensor - gold anodized aluminum Indicator - black numerals on white dial Indicator Box -textured black box; clear alodine aluminum mounting bracket |
| Warranty: | 3 years |
| Indicator Size: | 4.5" wide x 3.5" high x 2" deep (11.43cm x 8.89cm x 5.08cm) |
| Weight (complete system): | 8 lbs. (3.62kg) with standard 60 ft. cable |

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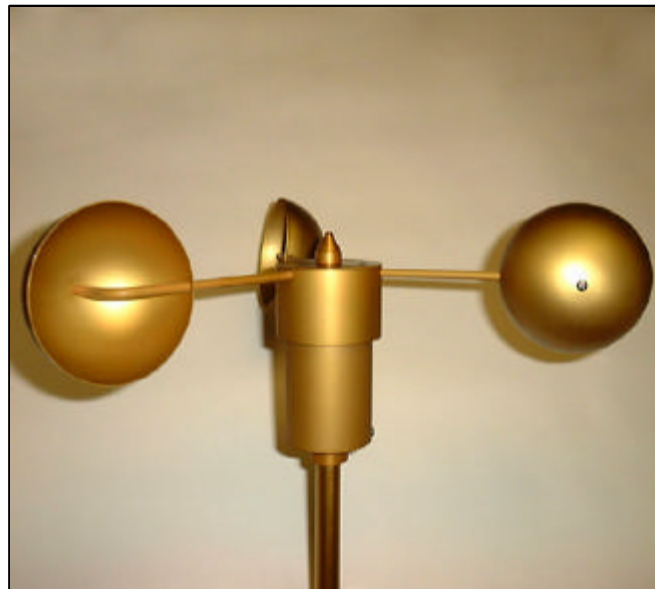
www.texaselectronics.com • email: info@texaselectronics.com

Installation & Maintenance

Before attaching the anemometer or wind speed sensor in place, the three anemometer cup/cup arm assemblies must be attached to the rotor head of the sensor. The cup arms are inserted all the way into the holes in the side of the rotor top plate with the flat side facing up, and they are secured with allen screws inserted through the top of the rotor plate. Screws and allen wrenches are shipped in a small plastic packet accompanying the cup/cup arm assemblies.

The sensor head is equipped with a 12" straight tube through which cable is run to connect to the indicator. This tube is the mounting feature and can be attached with the supplied hose clamps to the top of a crane boom, or in other appropriate location where wind speed must be monitored. The sensor should be located in such a way as to avoid any obstruction within at least 100 feet if possible, and up or down currents, eddy currents or jet flow effects are also to be avoided.

After the anemometer is fastened in place, the cable must be properly secured to the point where it will be attached to the indicator box. The indicator is then firmly bolted inside crane cab or wherever it is needed in order to keep equipment operator informed of the current wind speed. If necessary, the cable may be cut down in length, or more cable can be added with negligible effect on the anemometer's calibration. Additional cable length may be specified when ordering, and cable can be obtained from Texas Electronics if needed. If changing cable length by more than several hundred feet, contact the factory to determine the severity of the effect on calibration. Rotating elements are carefully balanced to eliminate any possible vibration and assure sensitivity to the lightest wind. In some applications users may wish to occasionally verify and document sensor accuracy with a synchronous test motor. Under average climate conditions, AC generator and/or bearings replacement is recommended at 3 to 5-year intervals.



Wind Speed Sensor (Model TV-114)

A three-cup anemometer directly connected to a precision alternating current brushless generator measures wind speed. The anemometer and generator shaft rotate in sealed ball bearings.

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|-------------------------|---------------------------------|
| Starting Threshold: | 2.2 to 3.0 mph (1.1 to 1.3 m/s) |
| Distance Constant: | 21.7 ft. (6.6 m) |
| Accuracy: | +/- 2.0 mph (0.9 m/s) |
| Excitation Requirement: | None, Self-Generating |
| Operational Envelope: | 0 to 120 MPH (0 to 53.7 m/s) |
| Cup Wheel Diameter: | 18" (45.7 cm) |
| Overall Height: | 7.5" (19.1 cm) |
| Turning Radius: | 9.0" (22.9 cm) |

Ordering Information

| <u>Model #</u> | <u>Description</u> |
|----------------|--|
| 2-200 | Wind Speed Indicating System (Please specify range if other than 0-100 MPH) |

Optional Parts / Accessories

| | |
|-------|------------------|
| Cable | Additional Cable |
|-------|------------------|