

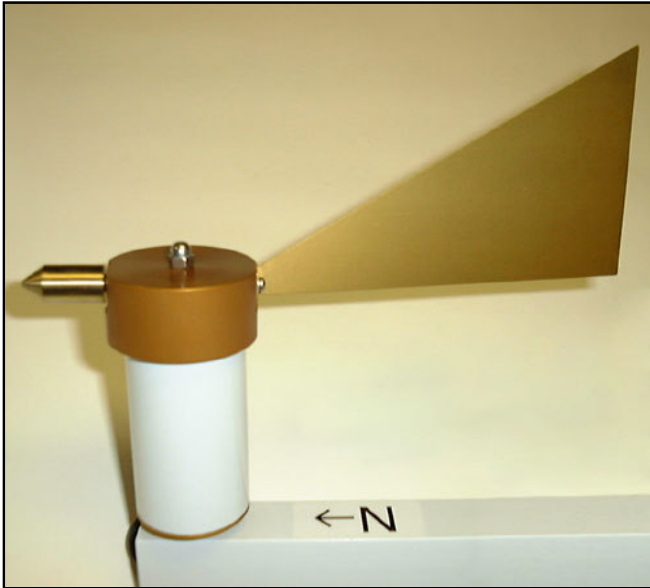


Texas Electronics, Inc.

The Gold Standard in Weather Instrumentation Since 1957

Wind Direction Vane

TD-4 Wind Direction Sensor



Description

The Texas Electronics, Inc. TD-4 Wind Direction Sensor is a mechanical style wind meter that measures the horizontal wind azimuth. This unit combines small physical size with superior bearings to meet the EPA's Prevention of Significant Deterioration (PSD) starting threshold requirements.

The TD-4 wind direction sensor is a freestanding device for measuring the direction of wind. The sensor consists of a vane and counterweight assembly, which is mechanically coupled to a potentiometer (variable resistor). As the vane rotates in the wind, the potentiometer changes resistance proportionally to the direction of wind.

Features & Benefits

- Superior low starting threshold
- Long life hybrid dual wiper potentiometer
- No plastic parts for extremely long life
- Precision stainless steel bearings for stability and repeatability
- Crossarm included with purchase of matching wind speed sensor
- Easy installation and maintenance
- Over 25 years in production
- Lightweight and rugged anodized aluminum exterior

Specifications

Operating Range:	0-360° mechanical
Signal Presentation:	5000 ohm potentiometer, 10000 ohm potentiometer, or Analog 4-20 mA 0-355° electrical range
5000 ohm output:	3 VDC excitation minimum
10000 ohm output:	0-357° electrical range 3 VDC excitation minimum
Analog 4-20 mA output:	0-355° electrical range 10-30 VDC
Performance:	
Accuracy:	+/- 3.0°
Starting Threshold:	0.6 mph (0.27 m/s)
Resolution:	1°
Potentiometer Linearity:	+/- 1.0%
Environmental:	
Operational Envelope:	0-135 mph (0 to 60 m/s)
Temperature:	-40 to 160° F (-40 to 70° C)
Relative Humidity:	0-100%
Physical:	
Vane Overall Length:	8.5" (21.6 cm)
Overall Height:	6.75" (17.2 cm)
Turning Radius:	13" (33 cm)
Weight:	0.5 lbs (0.23 kg) less cable
Bearings:	APEC 3 or better
Mounting Base:	Screw attachment, 10-32 machine screw
Cable:	60' (18.3 m) 3 conductor 22 gauge
Warranty:	3 year

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Installation & Maintenance

Installation consists of threading the 10-32 mounting base into our crossarm or any other suitable beam. If a crossarm is used, the entire unit can be bolted to a mast or attached via U-bolts.

The sensor is dynamically calibrated at the factory and due to the nature of its operation should not require field calibration. Calibration is a matter of proper orientation during installation. A magnetic compass is recommended for proper orientation. Field maintenance should include occasional cleaning of the vane assembly and inspection of the internal mechanism to make sure it is free from insects and debris. In some applications users may need to occasionally verify and document sensor accuracy with a calibration dial/vane. Possible bearing and potentiometer replacement every three to five years to maintain low starting threshold.

Ordering Information

<u>Model #</u>	<u>Description</u>
TD-4	Wind Direction Sensor, Light Industrial
TD-410	Wind Direction Sensor, Light, 10K
TD-4A	Wind Direction Sensor, Light, 4-20 mA

** Sensor is designed to work with TV-4 series wind speed sensors.*

Optional Parts / Accessories

Cable	Additional Cable
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