

WEATHER

Micro Response Anemometer

Model 2030



Overview

The Model 2030 Anemometer is a highly responsive and rugged 3-cup anemometer designed to measure very low wind speeds (0.5 mph threshold). It is constructed entirely of stainless steel and anodized aluminum to resist corrosive environments. Like its vane counterpart, the micro response anemometer has an aerodynamically shaped body and utilizes a labyrinth to prevent dust and water from reaching the bearings.

Rotation of the main shaft by the cup assembly moves a slotted disc through a photon beam, which is generated by a long-life infrared LED. The interruption of the beam causes a pulse output with a frequency proportional to wind speed. The photon-coupled chopper is mounted on the connector and can be removed from the body simply by removing the connector.

Heaters

Optional heaters are available for use in cold climates to minimize freezing of the vane and anemometer shafts. The Model 20201 heater assembly mounts between the top and bottom sections of the sensor body. It consists of a solid block of aluminum with a machined cavity containing a 20 W heater. The block acts as a heat sink, and the heater raises the block's temperature 20°C above the ambient temperature. Environmental connectors are supplied with the heater. An optional thermostat is available.

Ordering Information

Part Number	Description
2030	Micro Response Anemometer (LED)
2023	Crossarm for mounting 2 micro response wind sensors to 1" (25 mm) mast
20231	Mast adapter to mount 1 micro response wind sensor to a 1" (25 mm) mast
20201	Sensor Heater Assembly, 115 VAC
20201-A	Sensor Heater Assembly, 230 VAC
20306	2030 Cable (50 ft)
10681	Thermostat Control for Sensor Heater
T600503	Heater Cable, 3-conductor, 20 AWG
T800303-01	Cup Assembly
T801600	Light Chopper Assembly
T600504	4-Conductor Cable, 20 AWG shielded, for 2030
T600502	2-Conductor Cable, 20 AWG shielded, for 2031
M488141	2030 Spare Parts Kit

Specifications

Parameter	Specification
Sensor Type	3-cup assembly, carbon graphite composite, 2" diameter cups
Transducer	light chopper
Excitation (2030)	12 VDC, 25 mA
Light Source (2030)	LED
Output (2030)	30 pulses/rev, 900 Hz @ 88.8 mph
Output (2031)	7 mV/mph
Shaft Torque (2031)	0.05–0.06 oz/in
Range	0–160 mph (0–75 m/s)
Threshold	0.5 mph (0.2 m/s)
Accuracy	±1° (±0.15 mph)
Delay Distance	5 ft (1.5 m)
Materials	stainless steel and anodized aluminum
Operating Temperature	-40°C to +60°C
Turning Radius	3.8" (97 mm)
Mounting	direct to crossarm or w/adapter to 1" (25 mm) O.D. mast

Dimensions & Weights

2030 Body Dimensions	30.5 cm x 7.0 cm (12" H x 2.75" D)
2030 Body Weight	1.1 kg (2.5 lb)
20201 Dimensions	3.8 cm x 6.7 cm (1.5" x 2.64")
20201 Weight	0.4 kg (1 lb)
2030 Shipping Weight	3.2 kg (7 lb)