

visibility



Model 73000

**Sentry™ Visibility Sensor**

*The YOUNG Sentry™ Visibility Sensor measures atmospheric visibility (meteorological optical range) by determining the amount of light scattered by particles in the air (smoke, dust, haze, fog, rain, & snow).*

Performance in all weather conditions is achieved with an integrated design that keeps all cabling internal to the sensor for complete protection from hazards. The sensor is made from anodized aluminum and rugged, UV-resistant fiberglass enclosures. Based on the proven field experience of the NWS and FAA, the sensor uses a “look down” geometry to reduce window contamination and clogging from blowing snow. The optical windows have continuous duty anti-dew heaters. Optional thermostatically controlled external hood heaters are available for additional protection in extreme environments. All power and signal lines to the Sentry™ are protected with surge and EMI filtering to ensure uninterrupted service for the life of the sensor.

Installation and maintenance are simple with the Sentry™. A sturdy mounting flange located on the bottom of the main enclosure mates with a user-supplied 1-1/2 inch IPS mounting pipe. Power and signal cables are installed through waterproof cable glands on the bottom of the main enclosure to terminal boards for simple but reliable connections.

Calibration of the Sentry™ in the field is as simple as attaching a factory supplied calibration fixture and following a procedure that takes less than 30 minutes.

## Ordering Information

**73000** Sentry™ Visibility Sensor

**73004** Sentry™ Visibility Sensor with Hood Heating

### Power – select one:

**A** AC Power, 100-240 VAC, 50/60 Hz

**D** DC Power, 10-36 VDC

### Signal Output – select one:

**V** 0-5 VDC (no control relays)      **S** RS-232

**W** 0-10 VDC      **T** RS-422

**L** 4-20 mA      **U** RS-485

**M** 4-20 mA isolated

### Control Output – optional

**C** Single Control Relay (NA w/ output option V)

**D** Diagnostic Relay

**E** 2 Control Relays (NA w/ output option V)

**F** Control Relay and Diagnostic Relay  
(NA w/ output option V)

**G** 2 Control Relays, Diagnostic Relay  
(NA w/ output option V)\*\*

\*\* NOTE: Option G not available with Options S, T or U

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EXAMPLE: 73004-DWF = Sentry™ Visibility Sensor with hood heating, DC power, 0-10 VDC output, single control relay and single diagnostic relay

## Accessories

**73062** Calibration Fixture – recommended

**74050** Mounting Bracket – for vertical surfaces including walls, traffic poles and Rohn-type towers

**73038** Hood Extensions

## Specifications

<b>Visibility Range:</b>	30 m – 16 km
<b>Accuracy:</b>	+/- 10% RMSE
<b>Time Constant:</b>	60 sec
<b>Scatter Angle:</b>	42 deg nominal
<b>Output Options:</b>	0-10 VDC 0-5 VDC 4-20 mA 4-20 mA Isolated RS-232, RS-422 or RS-485
<b>Relay Options:</b>	2 Control 1 Diagnostic
<b>Power: AC Version:</b>	100-240 VAC, 24 VA Nominal 75 VA w/ hood heating
<b>DC Version:</b>	10-36 VDC, 6 VA Nominal 18 VA w/ hood heating
<b>Operating Temperature:</b>	-40 to +60 C
<b>Humidity:</b>	0 to 100% RH
<b>Protection:</b>	IP66 (NEMA-4X)
<b>Weight:</b>	8 kg (18 lb)
<b>Dimensions:</b>	889 mm x 292 mm x 305 mm (W x H x D) 35" x 11.5" x 12"
<b>Mounting:</b>	48 mm (1.9 inch) diameter (standard 1.5 inch IPS pipe)
<b>Optional:</b>	34 mm (1.3 inch) diameter (standard 1 inch IPS pipe)
<b>Construction:</b>	Frame: Anodized Aluminum Enclosures: Fiberglass, UV Resistant
<b>Certifications:</b>	This equipment is in compliance with the essential requirements and other provisions of Low Voltage Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC.



**CE** Complies with applicable CE directives.