

visibility

Explosion Proof Visibility Sensor



Model 73200
Sentry™ EX


The YOUNG Sentry™ EX Explosion Proof Visibility Sensor measures atmospheric visibility (meteorological optical range) by determining the amount of light scattered by particles in the air. The Sentry™ EX Explosion Proof Visibility Sensor is designed for high performance in hazardous environments at petrochemical production sites, refining facilities and transportation terminals. The ATEX Zone 1 rated housing and offshore marine-grade sheathed cables ensure all-weather IP66 performance to monitor changes in visibility due to rain, snow, fog, smoke, and dust.


A sturdy aluminum frame with durable powder-coat finish supports the housings and provides for mounting to a customer supplied pipe. Power and signal lines to the Sentry™ EX are protected with surge and EMI filtering to help guarantee uninterrupted service for the life of the sensor. Installation and maintenance are simple with the Sentry™ EX. A sturdy mounting flange located on the bottom of the main enclosure mates with a user-supplied 4.5 inch (4 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™ EX Explosion Proof Visibility Sensor in the field is as simple as attaching the standard calibration fixture and following a procedure that can be completed in less than 30 minutes.

Specifications

Visibility Range:	15 m – 8 km
Accuracy:	+/- 10% RMSE
Time Constant:	60 sec
Scatter Angle:	42 deg nominal
Output Options:	0-10 VDC 0-5 VDC 4-20 mA 4-20 mA Isolated RS-232, RS-422 or RS-485
Relay Options:	2 Control 1 Diagnostic
Sensor Power:	12 or 24 VDC, 10 VA Nominal
Heating Power:	230 VAC, 500 VA (model 73204)
Operating Temperature:	-20 to +60 C
Humidity:	0 to 100% RH
Protection:	IP66 (NEMA-4X)
Weight:	40 kg (88 lb)
Dimensions:	1170 mm x 915 mm x 560 mm (W x H x D) 46" x 36" x 22"
Mounting:	114.3 mm (4.5 inch) diameter (standard 4 inch IPS pipe)
Construction:	Frame: Aluminum with exterior powdercoat paint Hardware: 316 grade stainless steel

 This equipment is in compliance with ATEX Ex II 2GD EEx d IIB T5/ T6 for use in areas of potentially explosive atmospheres. Applicable EC Examination Certificates include CESI 01 ATEX 036 and CESI 01 ATEX 027.

 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.



Ordering Information

73200 Sentry™ EX Explosion Proof Visibility Sensor

73204 Sentry™ EX Explosion Proof Visibility Sensor with Hood Heating

(requires 230 VAC power for hood heaters)

Power – select one:

- E** 12 VDC
- F** 24 VDC

Signal Output – select one:

- P** 0-5 VDC (no control relays)
- W** 0-10 VDC
- L** 4-20 mA
- M** 4-20 mA isolated
- S** RS-232 (includes option P)
- T** RS-422 (includes option P)
- U** RS-485 (includes option P)

Control Output – optional

- C** Single Control Relay
- D** Diagnostic Relay
- E** 2 Control Relays (NA w/ output option P)
- F** Control Relay and Diagnostic Relay
- G** 2 Control Relays, Diagnostic Relay (NA w/ output option P)



EXAMPLE: 73204-ESC Sentry™ EX Explosion Proof Visibility Sensor with 12 VDC power, RS-232 output and one control relay

Accessories

74058 Serial Test Cable (option S, T or U)



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