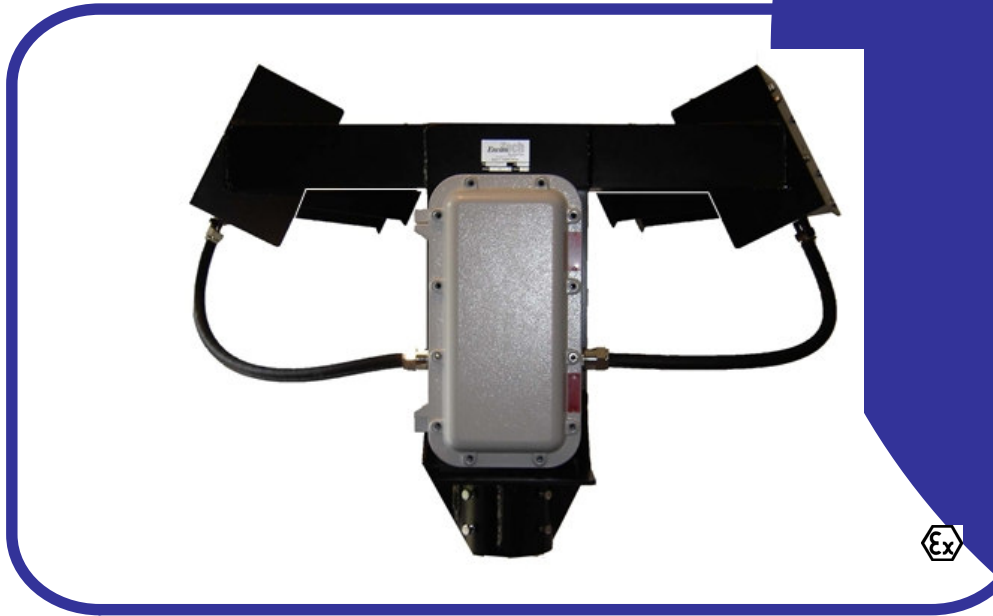


# EEx S Visibility



## - - - Key Features - - -

- 8 km (5 mile) visibility range
- Forward scatter measurement technique
- Ruggedized package
- Flexible output options
- ATEX Zone 1 Hazardous area
- Simple installation & maintenance

# EEx Sentry™ Visibility Sensor



**M**easures atmospheric visibility (meteorological optical range) by determining the amount of light scattered by particles (smoke, dust, haze, fog, rain, & snow) in the air that passes through the sample volume. A 42-degree forward scatter angle is used to ensure performance over a wide range of particle sizes. MOR is calculated by the user by converting the received signal strength (extinction coefficient,  $\sigma$ ) using Koschmeider's formula, MOR (Km) =  $3/\sigma$ .

**P**erformance in all weather conditions was a design prerequisite for the EEx Sentry™. The sensor uses ATEX rated EEx housings and offshore marine grade sheathed cables to ensure all-weather, Zone 1, IP66 certified performance. A sturdy aluminum frame painted with durable powder-coat paint is used to mount the housings and provide mounting to a customer supplied mounting pipe. Power and signal lines to the EEx Sentry™ are protected with surge and EMI filtering to help guarantee uninterrupted service for the life of the sensor.

**I**nstallation of the EEx Sentry™ is easy. A mounting flange located on the bottom of the sensor housing mates with a user-supplied 4 inch IPS pipe. Power and signal connections are made through M25 threaded holes using user supplied, ATEX approved cable glands and wiring. User wiring is made to DIN rail mounted terminal boards in the Signal Processing Box.

**C**alibration of the EEx Sentry™ in the field is as simple as attaching a calibration fixture to the back of the sensor and following a procedure that requires less than 20 minutes. Each sensor is supplied with a calibration fixture. Semiannual calibration is recommended.

## Sensor Specifications

Performance		Power	Certifications				
<b>Range:</b>	15 m to 8 km	<b>DC:</b> 12 or 24 VDC, 10 VA					
<b>Accuracy:</b>	+/- 10% RMSE						
<b>Time Constant:</b>	60 sec						
<b>Scatter Angle:</b>	42 deg nominal						
<b>Source:</b>	880 nm LED	<p><b>Physical</b></p> <p><b>Weight:</b> 40 kg (88 lb)</p> <p><b>Dimensions:</b> 1170 mm W x 915 mm H x 560 mm D (46 in x 36 in x 22 in)</p> <p><b>Mounting:</b> Nominal 102 mm pipe, 122 mm OD max (4 inch IPS pipe, 4.8 inch OD max)</p> <p>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.</p> <p>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.</p>					
<b>Outputs:</b>	0-10 VDC analog standard						
	0-5 VDC analog optional						
	Output Control Board optional with:						
	4-20 ma, 4-20 ma isolated, control relay(s), diagnostic relay						
	Microprocessor Board optional with:						
	RS-232, RS-422, RS-485, control relay, diagnostic relay						
<b>Environmental</b>					<b>Construction</b>		
<b>Temperature:</b>	-20 to 60 C				<b>Frame:</b> Aluminum with exterior powder coat paint for long durability in marine environment		
<b>Humidity:</b>	0-100%				<b>Hardware:</b> 316 grade stainless steel		
<b>Protection:</b>	IP66 (NEMA-4X)						

### - Applications for the EEx Sentry™ Visibility Sensor -



Offshore Platforms

### Ordering Information

#### EEx Sentry™ Visibility Sensor Model SVSEEx-x-y-z

Where "x" = mains voltage (E = 12 VDC, F = 24 VDC)

"y" = analog output (1 = 0-10 VDC, 2 = 0-5 VDC)

"z" = output options (Blank = none, O = Output Option PCB,

M = Microprocessor Option PCB

Calibration Fixture P/N 20104 (included with sensor)

- See Price List for information on options -



Chemical Plants