

ECO-SENSE Electrochemical H₂S

2-wire, Loop-powered Gas Detector



"SMART" sensor interface allows sensor type, range, calibration and other variables be stored in sensor

Allows "one man" sensor calibration in hazardous areas without area declassification. No special electronic devices needed

LCD readout and front panel alarm LED indicators for Alarm1, Alarm2, Fault, and IN CAL are standard

Isolated 4- 20mA, quick connect cables

CSA / ANSI / ATEX certifications

Standard "Fault Supervision" circuitry continuously monitors for failed sensor.

Field replaceable H₂S sensor module — range configured on sensor module.

4-20mA signal may be transmitted thousands of feet on 2-wires.

The Net Safety Monitoring ECO-SENSE monitor is a truly "state of the art" sensor transmitter designed specifically for gas detection applications. An economic and ecological choice, the low power gas sensor functions in a 2-wire 4-20mA "sink" mode with an electrochemical toxic H₂S sensor at less than .75 watts with 10-30 Vdc.

A "SMART" sensor interface allows a tiny memory chip in the sensor to provide the ECO-SENSE with parameters such as calibration, range, engineering units and important dates. A real time clock and calendar allows logging events such as sensor replacement, alarms and calibrations. Calibration offset and gain factors may be viewed and are useful for predicting sensor "end of life" conditions.

Operator interface is via a menu driven magnetic keypad allowing full access without opening the enclosure. There are no potentiometers and all adjustments are performed through the keypad. Requires only a simple calibration magnetic (included) for non-intrusive calibration, no other special electronic devices are needed.

The Net Safety ECO-SENSE ST-490 H₂S sensor overcomes noise immunity problems associated with electrochemical sensors by enclosing all low level signals within a grounded stainless steel sensor head. An integral "transient voltage suppressor" protects the device in case of lightning or other surge voltage levels. Gas range is determined by the field replaceable sensor module. The ST-490 is enclosed in a rugged, NEMA Type 7 approved, stainless steel enclosure suitable for installations into potentially hazardous environments and is certified CSA, ANSI and ATEX.

ECO-SENSE

Electrochemical H₂S, 2-wire, Loop-powered Gas Detector

BCR-0039-00-006

CONTROLLER SPECIFICATIONS

Performance

Accuracy	+/- 5% at full scale +/- 1 count
Temperature Drift	Less than .1% per degree C over ambient temperature range

Electrical

Power Supply	10 – 30 Vdc at less than .75 watts @ nominal 24 Vdc 2-Wire max loop R is 500 ohms
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Display

64 x 128 pixel LCD displays 30-minute trend, bar-graph & large engineering units and LED indicators

Environmental

Temperature	-40°C to +60°C (-40°F to +140°F) Ambient Range
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Enclosure

Metallurgy	316 Stainless Steel
Conduit Opening	3/4" NPT (3X)

Mounting

Surface Mount / 2" Pipe Mount

Outputs

Low-powered, Analog 2-Wire 4-20mA current sink output

Certifications

CSA | ANSI-UL/ISA | ATEX
Class 1, Division 1 & 2- Groups B,C,D

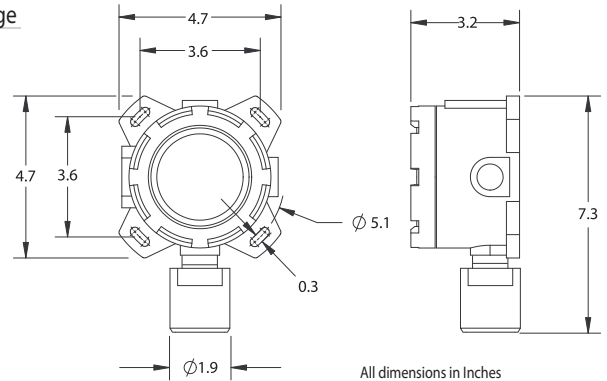
Warranty

2 years

ORDERING INFORMATION

ECO-A-S Single Channel - Analog

Enclosures Available: Stainless Steel Only



All dimensions in Inches
Diagram includes sensor housing

SENSOR SPECIFICATIONS

Sensor Module

Industry standard electrochemical type sensor with range configuration resistor and shorting transistor integrated into "smart" sensor module.

Analog Output

2-wire 4-20mA current sink; 9-36 VDC; less than 2mA FAULT value transmitted in case of missing or faulty sensor module.
Max output = 25mA

Certifications

CSA | ANSI-UL/ISA | ATEX
Class 1, Division 1 & 2- Groups B,C,D

Accuracy

± 5% of full scale.

Temperature

-40°C to +60°C (-40°F to +140°F) Ambient Range

Temperature Drift

Less than .1% per degree C over ambient temperature range.

Power Supply

9-36 VDC @ 25mA

Housing

316 Stainless Steel enclosure
Suitable for Class 1, Groups A,B,C,D; Class 2, Groups E,F,G.

Warranty

2 years

ORDERING INFORMATION

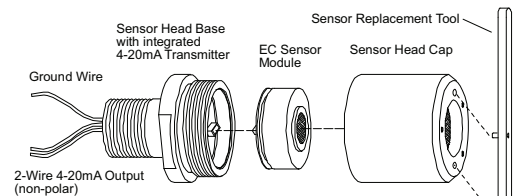
ST-490S-20/50/100

CSA/ANSI Approved

ST-490X-20/50/100

ATEX Approved

Enclosures Available: Stainless Steel Only



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Millennium II
Multi-Channel
Gas Detector



Phoenix Triple IR
Multi-spectrum
Flame Detector



FlameWatch
Combination Video
Flame Detector



Millennium II
BASIC Low Power
Gas Detector



Millennium APM
Industrial Air Particle
Smoke Detector



Gas Shield II
Light Industrial
Toxic Gas Detection



PlantSafe 8000
SIL2 PLC Fire & Gas
Safety Systems



Sales Gas Monitor
Continuous Monitoring
for H₂S Content

FLAME DETECTION • COMBUSTIBLE & TOXIC GAS DETECTION • SAFETY SYSTEMS • SURVEILLANCE • SMOKE DETECTION

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