

ECO-SENSE Electrochemical H₂S

2-wire, Loop-powered Gas Detector



Low power gas sensor functions in a 2-wire 4-20mA "sink" mode

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

LCD readout and front panel alarm LED indicators for Alarm 1, Alarm 2, Fault, and IN CAL are standard

Security mode allows locking of critical parameters

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 detector is a truly state-of-the-art H₂S gas sensor/transmitter package designed specifically for 2 wire, loop-powered installations.

An economic and ecological choice, this extremely versatile detector functions at less than .75 watts of power with 10-30 Vdc and a full LCD display with LED indicators.

The advanced sensor interface includes a real time clock and calendar which is used for logging events such as sensor replacement, alarms and calibrations. Calibration offset and gain factors may be viewed for accurately predicting sensor "end of life" conditions.

Operator interface is through a menu driven magnetic keypad allowing full access without opening the enclosure. There are no potentiometers and all adjustments are performed through the keypad. Calibration magnet is included for non-intrusive calibration, no other special electronic devices are needed. Users can also program warm up and calibration exit delays to avoid false alarms. Delay hold outputs at zero until sensor signals stabilize. IN/OUT alarm trip delays may also be programmed.

The Net Safety ECO-SENSE H₂S sensor overcomes noise immunity problems associated with electrochemical sensors by enclosing all low level signals within a grounded sensor head available in aluminum and stainless steel. An integral "transient voltage suppressor" protects the device in case of lightning or other surge voltage levels. The sensor is enclosed in a rugged Class 1, Div 1 enclosure suitable for hazardous environment installations and has been certified by CSA, ANSI and ATEX.

ECO-SENSE

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

BCR-0039-00-009

CONTROLLER SPECIFICATIONS

Outputs	Low-powered, Analog 2-Wire 4-20mA current sink output
Electrical	
Power Supply	10 – 30 Vdc at less than .75 watts @ nominal 24 Vdc 2-Wire max loop R is 500 ohms
Display	64 x 128 pixel LCD displays 30-minute trend, bar-graph & large engineering units and LED indicators
Environmental	
Temperature	-40°C to +75°C (-40°F to +167°F) Ambient Range
Enclosure	
Metallurgy	316 Stainless Steel
Conduit Opening	3/4" NPT (3X)
Mounting	Surface Mount / 2" Pipe Mount
Certifications	CSA ANSI-UL/ISA ATEX Ex/AEx/EEEx d IIB+H2 Class 1, Division 1 & 2 - Groups BCD NEMA 4X, IP67
Warranty	2 years

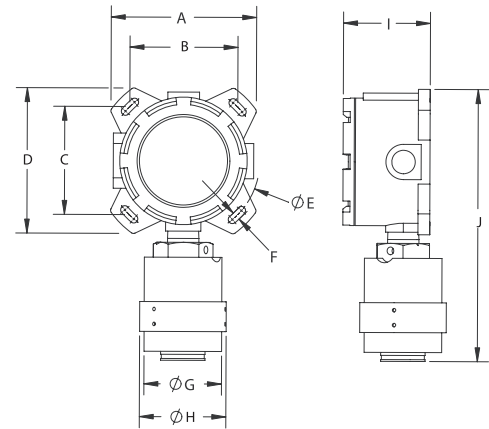
SENSOR SPECIFICATIONS

Sensor Module	Electrochemical type sensor with range configuration resistor and shunting transistor integrated into sensor module.
Certifications	CSA ANSI-UL/ISA ATEX Ex/AEx/EEEx d IIB+H2 Class 1, Division 1 & 2 - Groups BCD NEMA 4X, IP66 (filter)
Response Times	T20 <10secs T50 <30secs
Accuracy	± 5% of full scale ± 1 count
Range	0-100 PPM
Temperature	-40°C to +75°C (-40°F to +167°F) Ambient Range
Temperature Drift	< .1% per °C over ambient temperature range
Housing	Aluminum and 316 Stainless Steel enclosure available
Warranty	2 years

ORDERING INFORMATION

TRANSMITTER

ECO-A-S	Single Channel - Analog - Stainless Steel
ECO-A-A	Single Channel - Analog - Aluminum



A		B		C		D		E	
in	mm	in	mm	in	mm	in	mm	in	mm
4.8	122	3.6	91	3.6	91	4.8	122	5.1	130
4.7	119	3.6	91	3.6	91	4.8	122	5.1	130

F		G		H		I		J	
in	mm	in	mm	in	mm	in	mm	in	mm
0.3	7.6	2.6	66	2.9	74	3.0	76	9.0	229
0.3	7.6	2.6	66	2.9	74	2.8	71	8.9	226

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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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