Critical
Environment
Technologies™

FIXED SYSTEMS

The SCC Self Contained Controller combines toxic and/or combustible gas detection with basic control functionality for non-hazardous, non-explosion rated, commercial and light industrial applications.

The SCC is available in one or two channel configurations for monitoring toxic and/or combustible gas types by means of an internal electrochemical Carbon monoxide (CO) or Nitrogen dioxide (NO_2) sensor and one of three ESH-A remote catalytic combustible sensors used to detect Hydrogen (H_2), Propane (C_3H_8) or Methane (CH_4). Monitoring of CO or NO_2 may also be achieved remotely by combining the SCC with a 4-20 mA transmitter such as the LPT-TCO or LPT-END. The SCC also features two alarm level line voltage relays with field configurable time delays and trigger levels, a field selectable internal audible alarm and an LED panel indicating power, channel alarm status and fault conditions.

Automated calibration and other maintenance procedures are simple and easily performed in the field, and our proprietary Calibration Extending Firmware (CEF) takes into account the aging of the toxic gas sensors so that less frequent calibrations are required in less-critical applications such as parking garages.
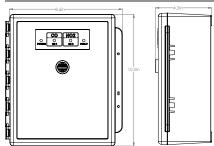
KEY FEATURES

» Single or dual channel operation
» Internal or remote sensors
» LED indicators for Power, CH1, CH2 and Fault
» Two 5A SPDT dry contact relays
» Internal audible alarm
» Optional 4 - 20 mA input (replaces remote combustible sensor)
» Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed.
» Six conduit entry ports
» Thermal resetting fuses
» RoHS compliant circuit boards

APPLICATIONS

» Parking Garages/Car Parks
» Vehicle Repair Shops
» Battery Charging Rooms
» Buildings on Landfill Sites
» » ... and many more

TECHNICAL DRAWING

TECHNICAL SPECIFICATIONS

GAS TYPE

Carbon Monoxide (CO) (electrochemical)	
Nitrogen Dioxide (NO_2) (electrochemical)	
Combustible Gas (catalytic) Hydrogen (H_2), Methane (CH_4), Propane (C_3H_8)	

MECHANICAL

Enclosure	ABS / Polycarbonate, IP54 rated with splash guard installed. Copper coated interior to reduce RF interference.
Weight	600 g (1.4 lb)
Size	254 x 218 x 109 mm (10.0 x 8.6 x 4.3 inches)

USER INTERFACE

Display	LED panel indicating "POWER", "CH1" state, "CH2" state, and "FAULT"

INPUT / OUTPUT

Input	4-20 mA analog
Relay	Two SPDT dry contact relays, 5A @ 240 VAC
Audible Alarm	Standard internal buzzer

ELECTRICAL

Power Requirement		
	Low Voltage	16 - 30 VDC or 12 - 28 VAC, 10 W, Class 2
	Line Voltage	90 - 240 VAC, 50 - 60 Hz
Current Draw		
	Low Voltage	400 mA @ 24 VDC
Line Voltage (110 VAC)		Approximately 90 mA
Line Voltage (220 VAC)		Approximately 45 mA
Wiring		24 VDC or 24 VAC two-conductor shielded; VAC (line voltage) three-conductor shielded

FIXED SYSTEMS

TECHNICAL SPECIFICATIONS CON'T

Distance	Maximum 200 ft between SCC controller and ESH-A Remote Sensor using minimum 18 gauge wire stranded within conduit.
Fuse(s)	Thermal, resetting

ENVIRONMENTAL *(sensor dependant)*

Operating Temperature	-20°C to 40°C (-4°F to 104°F), lower temperature option available
Humidity	15 - 90% RH non-condensing

CERTIFICATION

Conforms to: CSA-C22.2 No. 205-M1983 (R2009) UL508 (Edition 17):2007
Conforms to: EMC Directive 2004/108/EC EN 50270:2006, Type 1, EN61010
Conforms to: FCC. This device complies with Part 15 of the FCC Rules.

REMOTE DEVICES

RAA-90	Remote Audible Alarm rated 90 dB @ 30 cm (1 ft)
RAA-90-W	Remote Audible Alarm, water tight rated 85 dB @ 60.96 cm (2 ft)
RSH-24VDC	Remote Strobe and Horn combo, mounted, 24 VAC/VDC, rated 100 dB @ 3 m (10 ft)
RSH-24V-A **RSH-24V-B** **RSH-24V-R**	Remote Horn/Strobe Combo, unmounted, 24 VAC/VDC, rated 99 dB @ 3 m (10 ft) (VAC), 97 dB @ 10 ft (3 m) (VDC), choice of **A**mber, **B**lue or **R**ed lense

ACCESSORIES

CDA	Calibration Display Adapter tool for SCC
CET-715A-CK1	Calibration Kit for 17, 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder
CET-SGC	Calibration clip for splash guard
SCS-8000-SPG	Metal protective guard, large, 16 gauge, galvanized metal guards for controllers

PRODUCT CODES

PART NUMBER

Type A: Single Channel (One Internal Electrochemical Sensor) — *Lifespan*

SCC-A-TCO	CO sensor (0 - 200 ppm)	6+ yrs
SCC-A-NO2B	NO_2 sensor (0 - 10 ppm)	5 - 6 yrs

Type B: Single Channel (No Internal Sensor, ESH-A Remote Catalytic Sensor) only)

SCC-B-R +**ESH-A-CH2-100**	Hydrogen (H_2) sensor (0 - 100% LEL)	5 yrs

PRODUCT CODES CONTINUED

SCC-B-R +**ESH-A-CCH4-100**	Methane (CH_4) sensor (0 - 100% LEL)	5 yrs
SCC-B-R +**ESH-A-CC3H8-100**	Propane (C_3H_8) sensor (0 - 100% LEL)	5 yrs

Type B: Single Channel (No Internal Sensor, Remote LPT Transmitter only)

SCC-B-RT +**LPT-TCO**	CO sensor (0 - 200 ppm)	5 yrs
SCC-B-RT +**LPT-END**	NO_2 sensor (0 - 10 ppm)	5 yrs

Type D: Dual Channel (One Internal Electrochemical Sensor + Remote LPT Transmitter)

SCC-D-TCO-RT +**LPT-TCO**	CO sensor (0 - 200 ppm) & LPT-TCO CO sensor (0 - 200 ppm)	6+ yrs 6+ yrs
SCC-D-TCO-RT +**LPT-END**	CO Sensor (0 - 200 ppm) & LPT-END NO_2 sensor (0 - 10 ppm)	6+ yrs 5 - 6 yrs
SCC-D-NO2B-RT +**LPT-TCO**	NO_2 sensor (0 - 10 ppm) & LPT-TCO CO sensor (0 - 200 ppm)	5 - 6 yrs 5 - 6 yrs
SCC-D-NO2B-RT +**LPT-END**	NO_2 sensor (0 - 10 ppm) & LPT-END NO_2 sensor (0 - 10 ppm)	5 - 6 yrs 5 - 6 yrs

Type D: Dual Channel (One Internal Electrochemical Sensor + ESH-A Remote Catalytic Sensor) — *Lifespan*

SCC-D-TCO-R +**ESH-A-CH2-100**	CO sensor (0 - 200 ppm) & H_2 sensor (0 - 100% LEL)	6+ yrs 5 yrs
SCC-D-TCO-R +**ESH-A-CCH4-100**	CO sensor (0 - 200 ppm) & CH_4 sensor (0 - 100% LEL)	6+ yrs 5 yrs
SCC-D-TCO-R +**ESH-A-CC3H8-100**	CO sensor (0-200 ppm) & C_3H_8 sensor (0 - 100% LEL)	6+ yrs 5 yrs
SCC-D-NO2B-R +**ESH-A-CH2-100**	NO_2 sensor (0 - 10 ppm) & H_2 sensor (0 - 100% LEL)	5 - 6 yrs 5 yrs
SCC-D-NO2B-R +**ESH-A-CCH4-100**	NO_2 sensor (0 - 10 ppm) & CH_4 sensor (0 - 100% LEL)	5 - 6 yrs 5 yrs
SCC-D-NO2B-R +**ESH-A-CC3H8-100**	NO_2 sensor (0 - 10 ppm) & C_3H_8 sensor (0 - 100% LEL)	5 - 6 yrs 5 yrs

Type E: Dual Channel (Two Internal Electrochemical Sensors) — *Lifespan*

SCC-E-TCO-NO2B	CO sensor (0 - 200 ppm) & NO_2 sensor (0 - 10 ppm)	6+ yrs 5 - 6 yrs

OPTIONS *(Factory installed) Add at the end of the "Part Number" above.*

IH	Internal heater for cold environment applications down to -40°C / 40°F
S	Splash Guard *(may be added to the SCC, remote transmitter and/or the ESH-A Remote Sensor, as required)*