Critical Environment Technologies™

ANALOG GAS DETECTORS DATASHEET
LPT Low Power Transmitter

TECHNICAL DRAWING

Note: Drawings above are shown with an optional splash guard. Without splash guard, thickness of unit is 53.34 mm (2.1 inches).

The LPT is an economical, single sensor, analog transmitter for monitoring toxic gases non-hazardous, non-explosion proof rated commercial and light industrial applications. This basic transmitter is designed to be part of a fixed system with a Controller for applications such as car parks, vehicle repair, recreation facilities and oxygen depletion environments. It features a two-wire loop power, three-wire VDC or four-wire VAC power, 4 - 20 mA linear output signal, thermal resetting fuses, temperature compensation, and visual LED indication for power and fault conditions, all in a RoHS compliant package. Comes standard with a water / dust tight, corrosion resistant ABS / polycarbonate enclosure with a hinged, secured door. With the optional splash guard installed, the enclosure is IP54 rated and ideal for use in water spray or wash down applications.

Automated calibration and other maintenance procedures are simple and easily performed in the field. For parking garage applications, our proprietary Calibration Extending Firmware (CEF) takes into account the aging of the sensors so that less frequent calibrations are acceptable in non-critical applications.
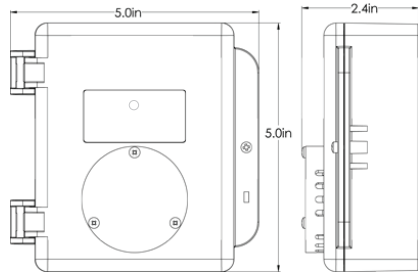
WIRING

2-Wire Loop

Control Panel		Transmitter
24V DC		24 V
		24 V
GND		SIG -
4-20 mA Loop In		SIG +

3-Wire VDC

Control Panel		Transmitter
24V DC		24 V
		24 V
GND		SIG -
4-20 mA Loop In		SIG +

4-Wire VAC

Control Panel		Transmitter
24V AC or DC		24 V
		24 V
GND		SIG -
4-20 mA Loop In		SIG +

KEY FEATURES

» Single sensor
» Linear 4 - 20 mA output signal
» 2-wire loop, 3-wire VDC or 4-wire VAC power
» Standard water / dust tight corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed.
» RoHS compliant package
» Auto resetting fuses
» Includes sensor CEF (calibration extending firmware)

APPLICATIONS

» Parking Garages/Car Parks
» Vehicle Repair Shops
» Manufacturing Plants
» Maintenance Facilities
» Commerical Swimming Pools
» Ice Arenas
» Food Processing Plants
» Chemical Storage Rooms
» ... and many more

LPT Low Power Transmitter
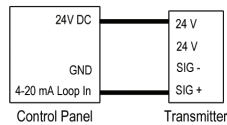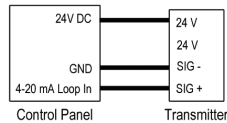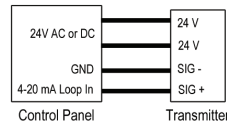
TECHNICAL SPECIFICATIONS

GAS TYPE

Carbon Monoxide (CO), Chlorine (Cl_2), Hydrogen Sulphide (H_2S), Nitrogen Dioxide (NO_2), Oxygen (O_2), Sulphur Dioxide (SO_2)

MECHANICAL

Enclosure	ABS / Polycarbonate, IP54 rated with splash guard installed. Copper coated interior to reduce RF interference.
Weight	200 g (7 oz)
Size	127 x 127 x 53 mm 5.0 x 5.0 x 2.1 inches

USER INTERFACE

Indicator LED	Single color status LED

INPUT / OUTPUT

Output	Linear 4 - 20 mA Maximum 216 Ω load (wiring plus termination resistor) at 16 VDC Maximum 316 Ω load (wiring plus termination resistor) at 12 VAC

ELECTRICAL

Power Requirement	
2-wire mode	16 - 30 VDC, 1 W, Class 2
3-wire mode	16 - 30 VDC, 1 W, Class 2
4-wire mode	12 - 27 VAC, 50-60 Hz, 1 VA, Class 2
Current Draw	Typical 25 mA
Wiring	VDC 2-conductor shielded 18 awg stranded VDC 3-conductor shielded 18 awg stranded VAC 4-conductor shielded 18 awg stranded
Fuses	Thermal, resetting

ENVIRONMENTAL *(sensor dependant)*

Operating Temperature	-20°C to 40°C (-4°F to 104°F)
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.

PRODUCT CODES

Internal Electrochemical Sensors		Lifespan
LPT-TCO	Carbon Monoxide (CO) sensor (0 - 200 ppm)	~6 yrs
LPT-CL2	Chlorine (Cl_2) sensor (0 - 5 ppm)	~3 yrs
LPT-H2S	Hydrogen Sulphide (H_2S) sensor (0 - 50 ppm)	~2 yrs
LPT-END	Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm)	~6 yrs
LPT-O2	Oxygen (O_2) sensor (0 - 25% volume)	~3 yrs
LPT-SO2	Sulphur Dioxide (SO_2) sensor (0 - 20 ppm)	~2yrs

OPTIONS *(Factory installed, add at the end of the Product Code above)*

S	Splash Guard for non sticky gases
SN	Splash Guard for sticky gases (Cl_2)

ACCESSORIES

CDA	Calibration Display Adapter tool for LPT
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-RSG	Metal protective guard, small, 16 gauge, galvanized metal guards for transmitters
SCS-8000-WSG	Small galvanized metal, 16 gauge protective guard with splash cover for transmitters with sticky gas sensors