Analog Transmitters - GAS DETECTION DATASHEET

LPT-A Analog Transmitter

The LPT-A is a full featured, single sensor, analog transmitter available with a wide range of sensors and sensor types including electrochemical, solid state and catalytic. Operating as an analog transmitter or a stand-alone fixed system, the LPT-A offers 3-wire VDC or 4-wire VAC power, jumper selectable 4 - 20 mA or 0 - 10 VDC analog output, one dry contact relay, automatic thermal resetting fuses, temperature compensation, back lit LCD display and audible alarm, all in a RoHS compliant package. It 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 sensor so that less frequent calibrations are required. For use in non-hazardous, non-explosion rated commercial and light industrial applications.
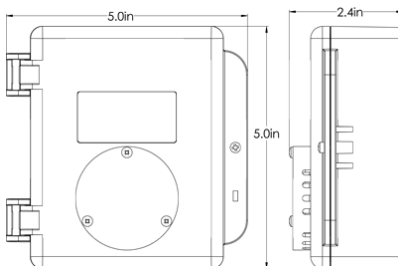
KEY FEATURES

» Single channel, with an internal electrochemical sensor, or catalytic for combustibles (internal or remote) or solid state for refrigerants or TVOCs (internal or remote)
» Linear 4 - 20 mA or 0 - 10 volt output signal
» 3-wire VDC or 4-wire VAC power
» 24 volt DC or AC power (nominal)
» LCD display (with user selectable function)
» One 2-amp SPDT dry contact relay
» Internal audible alarm
» Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed.
» Optional display heater for cold environment applications

APPLICATIONS

» Parking Garages/Car Parks and Vehicle Repair Shops
» Ice Arenas and Commerical Indoor Swimming Pools
» Cold Storage / Freezer Rooms / Chiller Rooms
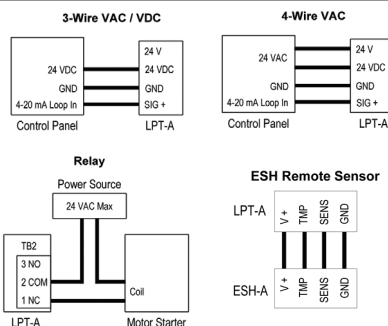» ... and many more

TECHNICAL DRAWING

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

WIRING

TECHNICAL SPECIFICATIONS

MECHANICAL

Enclosure	ABS / Polycarbonate, IP54 rated with splash guard installed. Copper coated interior to reduce RF interference.
Weight	400 g (14 oz)
Size	5.0" x 5.0" x 2.4" (127 mm x 127 mm x 61 mm)

USER INTERFACE

Display	Graphic LCD
Magnetic Sensors	Using a magnetic wand, initiate calibration without without opening enclosure

INPUT / OUTPUT

Output	- Linear 4 - 20 mA analog - Maximum 216 Ω load (wiring plus termination resistor) @ 12 VDC - Maximum 316 Ω load (wiring plus termination resistor) @ 12 VAC - Voltage 0 - 10 volt - Minimum 1k ohm load

TECHNICAL SPECIFICATIONS continued

Relay	1 SPDT dry contact, rated 2A @ 30V
Audible Alarm	Standard internal buzzer; enable/disable

ELECTRICAL

Power Requirement	
3-wire mode	16-30 VDC, 3 W, Class 2
4-wire mode	12-27 VAC, 50-60 Hz, 3 VA, Class 2
Wiring	- VDC (or ground referenced AC) three conductor shielded 18 awg stranded - VAC four conductor shielded 18 awg stranded
Fuses	Automatic resetting thermal
Humidity	15 - 90% RH non-condensing

ENVIRONMENTAL

Operating Temperature	-20°C to 40°C (-4°F to 104°F) (low temperature option available)

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. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

PRODUCT CODES

Internal Electrochemical Sensors		_Lifespan_
LPT-A-NH3	Ammonia (NH_3) sensor (0 - 500 ppm)	2 yrs
LPT-A-COA	Carbon Monoxide (CO) sensor (0 - 200 ppm)	3 yrs
LPT-A-COB	Carbon Monoxide (CO) sensor (0 - 200 ppm)	6 yrs
LPT-A-CLO2	Chlorine Dioxide (ClO_2) sensor (0 - 10 ppm)	2 yrs
LPT-A-CL2	Chlorine (Cl_2) sensor (0 - 5 ppm)	3 yrs
LPT-A-C2H4	Ethylene (C_2H_4) sensor (0 - 200 ppm)	2 yrs
LPT-A-EETO	Ethylene Oxide (C_2H_4O) sensor (0 - 20 ppm)	2 yrs
LPT-A-F2	Fluorine (F_2) sensor (0 - 1 ppm)	1-2 yrs
LPT-A-CH20	Formaldehyde (CH_2O) sensor (0 - 10 ppm)	2 yrs
LPT-A-EH2	Hydrogen (H_2) sensor (0 - 2,000 ppm)	2 yrs
LPT-A-H2S	Hydrogen Sulphide (H_2S) sensor (0 - 50 ppm)	2+yrs
LPT-A-H2SB	Hydrogen Sulphide (H_2S) sensor (0 - 50 ppm)	5+yrs
LPT-A-HCL	Hydrogen Chloride (HCl) sensor (0 - 20 ppm)	2 yrs
LPT-A-HCN	Hydrogen Cyanide (HCN) sensor (0 - 100 ppm)	2 yrs
LPT-A-HF	Hydrogen Fluoride (HF) sensor (0 - 10.0 ppm)	1-2 yrs
LPT-A-NO	Nitric Oxide (NO) sensor (0 - 100 ppm)	2 yrs
LPT-A-NO2A	Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm)	3 yrs
LPT-A-NO2B	Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm)	6 yrs
LPT-A-O2	Oxygen (O_2) sensor (0 - 25% volume)	3 yrs

PRODUCT CODES continued

LPT-A-O3	Ozone (O_3) sensor (0 - 2 ppm)	2 yrs
LPT-A-PH3	Phosphine (PH_3) sensor (0 - 5 ppm)	2 yrs
LPT-A-SIH4	Silane (SiH_4) sensor (0 - 20 ppm)	2 yrs
LPT-A-SO2	Sulphur Dioxide (SO_2) sensor (0 - 20 ppm)	2+yrs

Internal Solid State Sensors		_Lifespan_
LPT-A-SR22	Refrigerants (R22) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-SR134A	Refrigerants (R134A) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-SR402A	Refrigerants (R402A) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-SR404A	Refrigerants (R404A) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-SR407C	Refrigerants (R407C) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-SR410A	Refrigerants (R410A) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-SR422D	Refrigerants (R422D) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-SR507A	Refrigerants (R507A) sensor (0 - 2,000 ppm)	5 yrs
LPT-A-STVOC	TVOCs sensor (0 - 500 ppm)	5 yrs

Internal Catalytic Sensors		_Lifespan_
LPT-A-CH2	Hydrogen (H_2) sensor (0 - 50% LEL)	5 yrs
LPT-A-CCH4	Methane (CH_4) sensor (0 - 50% LEL)	5 yrs
LPT-A-CC3H8	Propane (C_3H_8) sensor (0 - 50% LEL)	5 yrs

ESH-A Remote Solid State Sensors		_Lifespan_
Part number is **LPT-A-R** + ESH-A number listed below		
ESH-A-SR22	Refrigerants (R22) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-SR134A	Refrigerants (R134A) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-SR402A	Refrigerants (R402A) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-SR404A	Refrigerants (R404A) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-SR407C	Refrigerants (R407C) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-SR410A	Refrigerants (R410A) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-SR422D	Refrigerants (R422D) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-SR507A	Refrigerants (R507A) sensor (0 - 2,000 ppm)	5 yrs
ESH-A-STVOC	TVOCs sensor (0 - 500 ppm)	5 yrs

ESH-A Remote Catalytic Sensors		_Lifespan_
ESH-A-CH2	Hydrogen (H_2) sensor (0 - 50% LEL)	5 yrs
ESH-A-CCH4	Methane (CH_4) sensor (0 - 50% LEL)	5 yrs
ESH-A-CC3H8	Propane (C_3H_8) sensor (0 - 50% LEL)	5 yrs

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

H	LCD display heater for cold environments -40°C to 50°C (-40°F to 122°F)
S	Splash guard (not available for O_3, HCl, or Cl_2 sensors)

ACCESSORIES

CET-715A-CK1	Calibration Kit for 17, 34, 58, 74, 103 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder
SCS-8000-RSG	Metal protective guard, small, 16 gauge, galvanized metal guards for transmitters