LPT-P Digital Car Park Transmitter

Critical Environment Technologies™

FIXED SYSTEMS

The LPT-P is an economical, three channel, digital transmitter that is designed to be part of a gas detection system for enclosed parking garage/car park and vehicle repair shop applications. It can be configured with a single and/or dual internal electrochemical Carbon monoxide (CO) and/or Nitrogen dioxide (NO_2) sensor and/or one catalytic combustible ESH-A Remote Sensor. The LCD display provides at-a-glance gas readings for each channel along with alarm and communication status. Navigating the menu can be done unobtrusively with a magnetic wand or by using the internal programming buttons.

The LPT-P comes in a standard 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.

The LPT-P is not a standalone gas detection device, it operates on a local area network (LAN) using Modbus® RS-485 RTU serial communications with a Controller, a control panel, Direct Digital Control system (DDC) or a Building Automation System (BAS). The LPT-P does not have an internal alarm or relay.
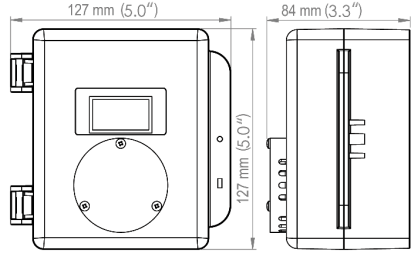
KEY FEATURES

» 1, 2 or 3 channel operation
» Modbus® RS-485 RTU digital output signal
» LCD display (with user selectable function)
» 4-conductor shielded network wiring (daisy-chain)
» 24 volt DC power
» Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed.
» Unobtrusive calibration and menu navigation using a magnetic wand
» RoHS compliant circuit board
» Auto resetting fuses

APPLICATIONS

» Parking Garages / Car Parks
» Vehicle Repair Shops
» Electric Car Charging Stations
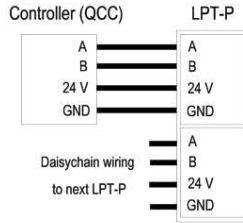» Battery Charging Rooms
» ...an many more

TECHNICAL DRAWING

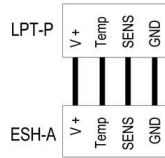Note: Drawings above are shown with the optional splash guard. Without the splash guard, the thickness of the unit is 71 mm (2.8 inches).

WIRING

TECHNICAL SPECIFICATIONS

GAS TYPE

Electrochemical (internal)	Carbon Monoxide (CO) and/or Nitrogen Dioxide (NO_2)
Combustible (catalytic) (ESH-A Remote Sensor)	Hydrogen (H_2), Methane (CH_4), or Propane (C_3H_8)

MECHANICAL

Enclosure	ABS / Polycarbonate, IP54 rated with splash guard installed. Copper coated interior to reduce RF interference.
Weight	400 g (14 oz)
Size	127 mm x 127 mm x 71 mm 5.0 x 5.0 x 2.8 inches
Conduit Entry Points	12.7 mm / 1/2 in diameter

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TECHNICAL SPECIFICATIONS CONTINUED

Mounting Holes	4.47 mm / 0.175 in diameter with max head diameter 8 mm / 0.32 in #8 or 4 mm screw

USER INTERFACE

Display	Graphic LCD, white border
Magnetic Sensors	Using a magnetic wand, initiate calibration/ menu options without opening the enclosure

INPUT / OUTPUT

Input	4 - 20 mA analog, for ESH-A Remote Sensor
Output	Modbus® RTU RS-485

ELECTRICAL

Power Requirement	16-30 VDC, 3 W, Class 2
Wiring 4-wire VDC	Modbus® RTU (version 1.1b3) RS-485, 16 gauge, 4-conductor shielded network wiring (daisy-chain)
Fuses	Thermal, resetting

ENVIRONMENTAL

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

PRODUCT CODES

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

LPT-P-TC0	Carbon Monoxide (CO) sensor (0 - 200 ppm)	6 yrs
LPT-P-N02B	Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm)	6 yrs

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

LPT-P-R + ESH-A-CH2-100	Hydrogen (H_2) sensor (0 - 100% LEL)	5 yrs
LPT-P-R + ESH-A-CCH4-100	Methane (CH_4) sensor (0 - 100% LEL)	5 yrs
LPT-P-R + ESH-A-CC3H8-100	Propane (C_3H_8) sensor (0 - 100% LEL)	5 yrs

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

LPT-P-TC0-R + ESH-A-CH2-100	CO sensor (0 - 200 ppm) & Hydrogen (H_2) sensor (0 - 100% LEL)	6+ yrs 5 yrs
LPT-P-TC0-R + ESH-A-CCH4-100	CO sensor (0 - 200 ppm) & Methane (CH_4) sensor (0 - 100% LEL)	6+ yrs 5 yrs

PRODUCT CODES CONTINUED

LPT-P-TC0-R + ESH-A-CC3H8-100	CO sensor (0 - 200 ppm) & Propane (C_3H_8) sensor (0 - 100% LEL)	6+ yrs 5 yrs
LPT-P-N02B-R + ESH-A-CH2-100	NO₂ sensor (0 - 10 ppm) & Hydrogen (H_2) sensor (0 - 100% LEL)	6+ yrs 5 yrs
LPT-P-N02B-R + ESH-A-CCH4-100	NO₂ sensor (0 - 10 ppm) & Methane (CH_4) sensor (0 - 100% LEL)	6+ yrs 5 yrs
LPT-P-N02B-R + ESH-A-CC3H8-100	NO₂ sensor (0 - 10 ppm) & Propane (C_3H_8) sensor (0 - 100% LEL)	6+ yrs 5 yrs

Type E: Dual Channel (Two Internal Electrochemical Sensors)

LPT-P-TC0-N02B	CO sensor (0 - 200 ppm) & NO_2 sensor (0 - 10 ppm)	6+ yrs 5-6 yrs

Type F: Three Channel (Internal CO and NO_2 Sensors + One ESH-A Remote Sensor)

LPT-P-TC0-N02B-R + ESH-A-CH2-100	Carbon Monoxide (CO) sensor (0 - 200 ppm) Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm) Hydrogen (H_2) sensor (0 - 100% LEL)
LPT-P-TC0-N02B-R + ESH-A-CCH4-100	Carbon Monoxide (CO) sensor (0 - 200 ppm) Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm) Methane (CH_4) sensor (0 - 100% LEL)
LPT-P-TC0-N02B-R + ESH-A-CC3H8-100	Carbon Monoxide (CO) sensor (0 - 200 ppm) Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm) Propane (C_3H_8) sensor (0 - 100% LEL)

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

S	Splash guard *(may be added to the LPT-P and/ or the ESH-A Remote Sensor, as required)*

ACCESSORIES

CET-SGC	Calibration clip for splash guard
CET-715A-CK1	Calibration Kit for 17, 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder
SCS-8000-RSG	Small galvanized metal, 16 gauge protective guard for transmitters and/or ESH-A Remote Transmitter, as required.
SCS-8000-WSG	Small galvanized metal, 16 gauge protective guard with splash cover for transmitters with sticky gas sensors

CERTIFICATION

Conforms to: CSA-C22.2 No. 205-12 / 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.

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