

# DIGITAL GAS DETECTORS DATASHEET

## LPT-P Digital Car Park Transmitter



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<sub>2</sub>) 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.

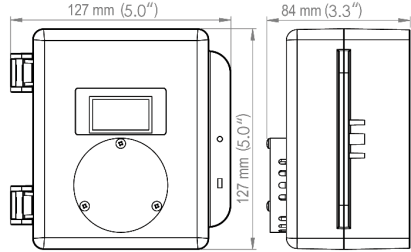
### KEY FEATURES

- » 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

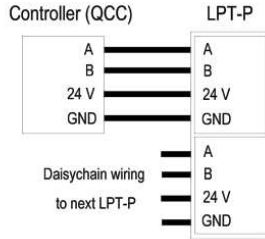
### TECHNICAL DRAWING



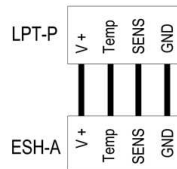
Note: Drawings above are shown with the optional splash guard. Without the splash guard, the thickness of the unit is 71 mm (2.8 inches).

### WIRING

#### 4-Wire 24 VDC



#### ESH-A Remote Sensor



### TECHNICAL SPECIFICATIONS

#### GAS TYPE

Electrochemical (internal)	Carbon Monoxide (CO) and/or Nitrogen Dioxide (NO <sub>2</sub> )
Combustible (catalytic) (ESH-A Remote Sensor)	Hydrogen (H <sub>2</sub> ), Methane (CH <sub>4</sub> ), or Propane (C <sub>3</sub> H <sub>8</sub> )

#### MECHANICAL

Enclosure	ABS / Polycarbonate, IP54 rated with splash guard installed. Copper coated interior to reduce RF interference.
Weight	400 g (14 oz)

# LPT-P Digital Car Park Transmitter

## TECHNICAL SPECIFICATIONS CONTINUED

Size	127 mm x 127 mm x 71 mm 5.0 x 5.0 x 2.8 inches
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## USER INTERFACE

Display	Graphic LCD, white border
Magnetic Sensors	Using a magnetic wand, initiate calibration and 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*

<b>LPT-P-TCO</b>	Carbon Monoxide (CO) sensor (0 - 200 ppm)	6 yrs
<b>LPT-P-NO2B</b>	Nitrogen Dioxide (NO <sub>2</sub> ) sensor (0 - 10 ppm)	6 yrs

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

<b>LPT-P-R</b> <b>+ ESH-A-CH2-100</b>	Hydrogen (H <sub>2</sub> ) sensor (0 - 100% LEL)	5 yrs
<b>LPT-P-R</b> <b>+ ESH-A-CCH4-100</b>	Methane (CH <sub>4</sub> ) sensor (0 - 100% LEL)	5 yrs
<b>LPT-P-R</b> <b>+ ESH-A-CC3H8-100</b>	Propane (C <sub>3</sub> H <sub>8</sub> ) sensor (0 - 100% LEL)	5 yrs

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

<b>LPT-P-TCO-R</b> <b>+ ESH-A-CH2-100</b>	CO sensor (0 - 200 ppm) & Hydrogen (H <sub>2</sub> ) sensor (0 - 100% LEL)	6+ yrs 5 yrs
<b>LPT-P-TCO-R</b> <b>+ ESH-A-CCH4-100</b>	CO sensor (0 - 200 ppm) & Methane (CH <sub>4</sub> ) sensor (0 - 100% LEL)	6+ yrs 5 yrs

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## PRODUCT CODES CONTINUED

<b>LPT-P-TCO-R</b> <b>+ ESH-A-CC3H8-100</b>	CO sensor (0 - 200 ppm) & Propane (C <sub>3</sub> H <sub>8</sub> ) sensor (0 - 100% LEL)	6+ yrs 5 yrs
<b>LPT-P-NO2B-R</b> <b>+ ESH-A-CH2-100</b>	NO <sub>2</sub> sensor (0 - 10 ppm) & Hydrogen (H <sub>2</sub> ) sensor (0 - 100% LEL)	6+ yrs 5 yrs
<b>LPT-P-NO2B-R</b> <b>+ ESH-A-CCH4-100</b>	NO <sub>2</sub> sensor (0 - 10 ppm) & Methane (CH <sub>4</sub> ) sensor (0 - 100% LEL)	6+ yrs 5 yrs
<b>LPT-P-NO2B-R</b> <b>+ ESH-A-CC3H8-100</b>	NO <sub>2</sub> sensor (0 - 10 ppm) & Propane (C <sub>3</sub> H <sub>8</sub> ) sensor (0 - 100% LEL)	6+ yrs 5 yrs

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

<b>LPT-P-TCO-NO2B</b>	CO sensor (0 - 200 ppm) & NO <sub>2</sub> sensor (0 - 10 ppm)	6+ yrs 5-6 yrs
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*Type F: Three Channel (Internal CO and NO<sub>2</sub> Sensors + One ESH-A Remote Sensor)*

<b>LPT-P-TCO-NO2B-R</b> <b>+ ESH-A-CH2-100</b>	Carbon Monoxide (CO) sensor (0 - 200 ppm) Nitrogen Dioxide (NO <sub>2</sub> ) sensor (0 - 10 ppm) Hydrogen (H <sub>2</sub> ) sensor (0 - 100% LEL)
<b>LPT-P-TCO-NO2B-R</b> <b>+ ESH-A-CCH4-100</b>	Carbon Monoxide (CO) sensor (0 - 200 ppm) Nitrogen Dioxide (NO <sub>2</sub> ) sensor (0 - 10 ppm) Methane (CH <sub>4</sub> ) sensor (0 - 100% LEL)
<b>LPT-P-TCO-NO2B-R</b> <b>+ ESH-A-CC3H8-100</b>	Carbon Monoxide (CO) sensor (0 - 200 ppm) Nitrogen Dioxide (NO <sub>2</sub> ) sensor (0 - 10 ppm) Propane (C <sub>3</sub> H <sub>8</sub> ) sensor (0 - 100% LEL)

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

<b>S</b>	Splash guard (may be added to the LPT-P and/or the ESH-A Remote Sensor, as required)
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## ACCESSORIES

<b>CET-SGC</b>	Calibration clip for splash guard
<b>CET-715A-CK1</b>	Calibration Kit for 17, 34, 58, 74, 100 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder
<b>SCS-8000-RSG</b>	Small galvanized metal, 16 gauge protective guard for transmitters and/or ESH-A Remote Transmitter, as required.
<b>SCS-8000-WSG</b>	Small galvanized metal, 16 gauge protective guard with splash cover for transmitters with Cl <sub>2</sub> , O <sub>3</sub> and HCl (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.

