

**FIXED SYSTEMS**



The LPT-B is a full featured, 3 channel, digital transmitter for use in non-hazardous, non-explosion rated, commercial and light industrial applications. It is available with a wide range of internal and/or external sensors and sensor types including electrochemical, catalytic and PID TVOC. It offers a BACnet® MS/TP output signal for communicating with a Controller or Building Automation System, an audible internal alarm, one SPDT dry contact relay, LCD display with user selectable functions, temperature compensation and thermal resetting fuses all in a RoHS compliant package.

The LPT-B comes in a standard water / dust tight, corrosion resistant ABS / polycarbonate enclosure with a hinged door. It is IP54 rated with the optional splash guard installed which provides protection in water spray or wash down applications.

The LPT-B is not compatible with CETC's Controllers. It is intended to be used as a standalone system or integrated into an existing BACnet® network.

### KEY FEATURES

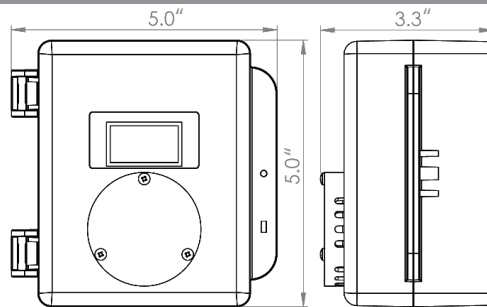
- » 1, 2 or 3 channel operation
- » BACnet® MS/TP digital output signal
- » Many internal and/or remote sensor configurations
- » One SPDT dry contact relay
- » LCD display (with user selectable function)
- » Internal audible alarm
- » Standard water / dust tight, corrosion resistant enclosure (drip proof); IP54 rated with optional splash guard installed.
- » RoHS compliant circuit board
- » Thermal resetting fuses

### APPLICATIONS

- » Parking Garages/Car Parks
- » Vehicle Repair Shops
- » Ice Arenas
- » Ice Cleaning Machine Rooms
- » Commercial Indoor Swimming Pools
- » Manufacturing Plants
- » Maintenance Facilities
- » ... and many more

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### TECHNICAL DRAWING



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

### 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	127 x 127 x 71 mm / 5.0 x 5.0 x 2.8 inches

#### USER INTERFACE

Display	Graphic LCD, yellow 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	BACnet® MS/TP RS-485
Relay	1 SPDT dry contact, rated at 30 volts, 2 amps max
Audible Alarm	Standard internal buzzer, enable/disable, rated 90 dB @ 10 cm / 4 in

#### ELECTRICAL

Power Requirement	16-30 VDC, 3 W, Class 2 12-27 VAC, 50-60 Hz, 3 VA, Class 2
Current Draw	55 mA (buzzer & relay energized, 2 sensors)
Wiring	BACnet® MS/TP (version 1 rev 14) RS-485, 16 gauge, 4-conductor stranded 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)*

Part Number		Lifespan
<b>LPT-B-NH3</b>	Ammonia (NH <sub>3</sub> ) sensor (0 - 500 ppm)	~2 yrs
<b>LPT-B-TCO</b>	Carbon Monoxide (CO) sensor (0 - 200 ppm)	~6 yrs
<b>LPT-B-CL2</b>	Chlorine (Cl <sub>2</sub> ) sensor (0 - 5 ppm)	~3 yrs
<b>LPT-B-CLO2</b>	Chlorine Dioxide (ClO <sub>2</sub> ) sensor (0 - 10 ppm)	~2 yrs
<b>LPT-B-C2H4</b>	Ethylene (C <sub>2</sub> H <sub>4</sub> ) sensor (0 - 200 ppm)	~2 yrs
<b>LPT-B-EETO</b>	Ethylene Oxide (C <sub>2</sub> H <sub>4</sub> O) sensor (0 - 20 ppm)	~2 yrs
<b>LPT-B-F2</b>	Fluorine (F <sub>2</sub> ) sensor (0 - 1 ppm)	~2 yrs
<b>LPT-B-CH2O</b>	Formaldehyde (CH <sub>2</sub> O) sensor (0 - 5 ppm)	~2 yrs
<b>LPT-B-EH2</b>	Hydrogen (H <sub>2</sub> ) sensor (0 - 2,000 ppm)	~2 yrs
<b>LPT-B-H2SB</b>	Hydrogen Sulphide (H <sub>2</sub> S) sensor (0 - 50 ppm)	~5 yrs
<b>LPT-B-HCL</b>	Hydrogen Chloride (HCl) sensor (0 - 30 ppm)	~2 yrs
<b>LPT-B-HCN</b>	Hydrogen Cyanide (HCN) sensor (0 - 30 ppm)	~2 yrs
<b>LPT-B-HF</b>	Hydrogen Fluoride (HF) sensor (0 - 10 ppm)	~2 yrs
<b>LPT-B-NO</b>	Nitric Oxide (NO) sensor (0 - 100 ppm)	~2 yrs
<b>LPT-B-NO2A</b>	Nitrogen Dioxide (NO <sub>2</sub> ) sensor (0 - 10 ppm)	~3 yrs
<b>LPT-B-NO2B</b>	Nitrogen Dioxide (NO <sub>2</sub> ) sensor (0 - 10 ppm)	~6 yrs
<b>LPT-B-O2</b>	Oxygen (O <sub>2</sub> ) sensor (0 - 25% volume)	~3 yrs
<b>LPT-B-O3</b>	Ozone (O <sub>3</sub> ) sensor (0 - 1 ppm)	~2 yrs
<b>LPT-B-PH3</b>	Phosphine (PH <sub>3</sub> ) sensor (0 - 5 ppm)	~2 yrs
<b>LPT-B-SIH4</b>	Silane (SiH <sub>4</sub> ) sensor (0 - 20 ppm)	~2 yrs
<b>LPT-B-SO2</b>	Sulphur Dioxide (SO <sub>2</sub> ) sensor (0 - 20 ppm)	~2 yrs

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

[GROUP 2] Part Number	LPT-B-R and add the Part Number of the ESH-A Remote Sensor from [GROUP 2] below. (example: LPT-B-R + ESH-A-CCH4-100)	
<i>Catalytic Combustibles</i>		
<b>ESH-A-CH2-100</b>	Hydrogen (H <sub>2</sub> ) sensor (0 - 100% LEL)	5 yrs
<b>ESH-A-CCH4-100</b>	Methane (CH <sub>4</sub> ) sensor (0 - 100% LEL)	5 yrs
<b>ESH-A-CC3H8-100</b>	Propane (C <sub>3</sub> H <sub>8</sub> ) sensor (0 - 100% LEL)	5 yrs
<i>TVOC PIDs</i> <span style="float: right;">** usage and application dependant</span>		
<b>ESH-A-SPL</b>	TVOC PID sensor (0 - 30 ppm)	**
<b>ESH-A-SPH</b>	TVOC PID sensor (0 - 300 ppm)	**
<i>Infrared</i>		
<b>ESH-A-JET</b>	Propane (C <sub>3</sub> H <sub>8</sub> ) sensor (0 - 100% LEL)	8 yrs

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

<b>LPT-B-TCO-R</b> + [GROUP 2]	
<b>LPT-B-NO2B-R</b> + [GROUP 2]	Add one ESH-A Remote Sensor from [GROUP 2]
<b>LPT-B-CH2O-R</b>	
<b>LPT-B-H2SB-R</b>	

### PRODUCT CODES... continued

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

<b>LPT-B-TCO-NO2B</b>	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Nitrogen Dioxide (NO <sub>2</sub> ) sensor (0 - 10 ppm)	~6 yrs
<b>LPT-B-TCO-O2</b>	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Oxygen (O <sub>2</sub> ) sensor (0 - 25% volume)	~6 yrs ~3 yrs

*Type F: Three Channel (Internal CO and NO<sub>2</sub> Sensors + One ESH-A Remote Sensor)*

<b>LPT-B-TCO-NO2B-R</b> + [GROUP 2]	Add one ESH-A Remote Sensor from [GROUP 2]
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**OPTIONS** (Factory installed) Add at the end of the "Part Number" above.

<b>L2</b>	Enclosure mounted (on side), strobe with audible, 40 mm / 2 in dia, 80 flashes per min, siren volume 85 dB, drip proof
<b>S</b>	Splash Guard for non sticky gases
<b>SN</b>	Splash Guard for sticky gases (Cl <sub>2</sub> , ClO <sub>2</sub> , HCl, HCN, O <sub>3</sub> , PH <sub>3</sub> )

### 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>CET-MW</b>	Magnetic wand for non-intrusive calibration
<b>PID-KITA</b>	Maintenance Kit for cleaning PID sensor bulb
<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 sticky gases

### 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.
Listed by BTL

