Critical Environment Technologies™

DIGITAL GAS DETECTORS DATASHEET

Modbus® Transmitter

FIXED SYSTEMS



The LPT-M is a full featured, 3 channel, digital transmitter that may be configured to operate as a standalone fixed system or be part of a digital network. It is available with one internal carbon monoxide sensor plus one internal nitrogen dioxide sensor plus a remote sensor. The third sensor can be a combustible gas available in the ESH-A remoted sensor product line or any analog 4-20 mA transmitter, such as the CGAS-A or LPT product lines.

The LPT-M offers a Modbus® RTU RS-485 output signal for communicating with a Controller and/or a 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-M comes in a standard water / dust tight, corrosion resistant ABS / polycarbonate enclosure with a hinged, secured door. With the optional, factory installed splash guard the enclosure is IP54 rated and provides protection in water spray or wash down applications. An optional heater is available for continued operation in cold environment applications.

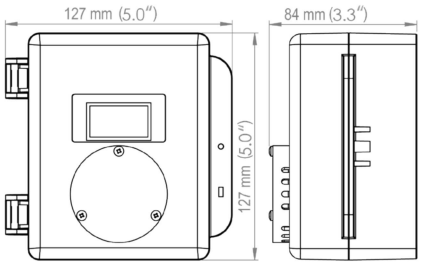
KEY FEATURES

» 3 channel operation
» Modbus® RTU RS-485 digital output signal
» One SPDT dry contact relay
» LCD display (with user selectable function)
» Internal audible alarm
» Optional display heater for cold environment applications
» 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
» Bus Barns
» Distribution Warehouses
» Ice Arenas
» Ice Cleaning Machine Rooms
» Maintenance Facilities
» ... and 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").

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, green 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
Relay	One SPDT dry contact, rated 30 volts, 2 amps max
Audible Alarm	Standard internal buzzer, enable/disable, rated 90 dB @ 10 cm / 4 in

ELECTRICAL	
Power Requirement	12-27 VAC, 50-60 Hz, 3 VA, Class 2 16-30 VDC, 3W, Class 2
Current Draw	30 mA (buzzer & relay energized, 2 sensors)
Wiring 4-wire VAC/VDC	Modbus® RTU (version 1.1b3) RS-485, 16 gauge, 4-conductor shielded network wiring (daisy-chain)
Fuses	Thermal, resetting

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LPT-M Modbus® Transmitter

TECHNICAL SPECIFICATIONS

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

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.

PRODUCT CODES

LPT-M-TCO-NO2B-R	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Nitrogen Dioxide (NO_2) sensor (0 - 10 ppm) & **Add a Remote Sensor**	~6 yrs
LPT-M-TCO-02-R	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Oxygen (O_2) sensor (0 - 25% volume) & **Add a Remote Sensor**	~6 yrs ~3 yrs
LPT-M-TCO-NO2B -RT	Carbon Monoxide (CO) sensor (0 - 200 ppm) & Oxygen (O_2) sensor (0 - 25% volume) & **Add a remote 4-20 mA transmitter**	~6 yrs ~3 yrs

REMOTE SENSORS		
Catalytic		*Lifespan*
ESH-A-CH2-100	Hydrogen (H_2) sensor (0 - 100% LEL)	5 yrs
ESH-A-CCH4-100	Methane (CH_4) sensor (0 - 100% LEL)	5 yrs
ESH-A-CC3H8-100	Propane (C_3H_8) sensor (0 - 100% LEL)	5 yrs
TVOC PIDs		
ESH-A-SPL	TVOC PID sensor (0 - 30 ppm)	
ESH-A-SPH	TVOC PID sensor (0 - 300 ppm)	**
Infrared		
ESH-A-JET	Propane (C_3H_8) sensor (0 - 100% LEL)	8 yrs

OPTIONS *(Factory installed) Add at the end of the "Part Number" above.*	
H	Internal heater for cold environment applications down to -40°C / 40°F
L2	Enclosure mounted (on side), strobe with audible, 40 mm / 2 in dia, 80 flashes per min, siren volume 85 dB, drip proof
S	Splash Guard

PRODUCT CODES... continued

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
CET-MW	Magnetic wand for non-intrusive calibration
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

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