# Critical Environment Technologies

#### Transmitters - GAS DETECTION DATASHEET

# **LPT Low Power Transmitter**



All models in the LPT series of transmitters that come standard with a water / dust tight, corrosion resistant ABS / polycarbonate enclosure with a hinged, secured door. An optional splash guard is also available for water spray or wash down applications.

Automated calibration and other maintenance procedures are simple and easily performed in the field, and our proprietary Calibration Extending Firmware (CEF) takes into account the aging of the sensors so that less frequent calibrations are acceptable in non-critical applications.

The LPT is an economical, single sensor, analog transmitter available with either a carbon monoxide (CO) or nitrogen dioxide (NO<sub>2</sub>) sensor which are ideal for vehicle exhaust type applications such as parkades. It features a two-wire loop power, three-wire VDC or four-wire VAC power, 4 - 20 mA linear output signal, automatic thermal resetting fuse, temperature compensation, and visual LED indication for power and fault conditions, all in a RoHS compliant package.

## **KEY FEATURES**

- » Linear 4 20 mA output signal
- » Standard water / dust tight enclosure
- » Single sensor: carbon monoxide (CO) or nitrogen dioxide (NO<sub>3</sub>)
- » RoHS compliant package
- » 2-wire loop, 3-wire VDC or 4-wire VAC power
- » Easy maintenance
- » Economical
- » Includes sensor CEF (calibration extending firmware)
- » Auto resetting fuse
- » Automated calibration procedure

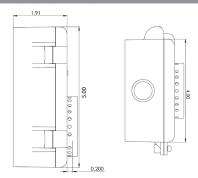
#### \_ ...

- » Parking Garages
- » Repair Shops
- » Ice Cleaning Machine Rooms

**APPLICATIONS** 

- » Manufacturing plants
- » Maintenance facilities
- » ... and many more

#### **TECHNICAL DRAWING**



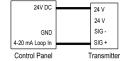
Note: Drawings above are shown with an optional splash guard.

#### **SAMPLE ENGINEERING SPECIFICATIONS**

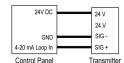
Coming soon...

#### WIRING

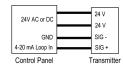
#### 2-Wire Loop



#### 3-Wire VDC



#### 4-Wire VAC



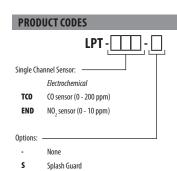




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# **LPT Low Power Transmitter**

GAS TYPE		MECHANICAL		
Carbon Monoxide (CO)		Enclosure	ABS / Polycarbonate	
Nitrogen Dioxide (NO,)		Weight	200 g (7 oz)	
•		Size	5.0" x 4.0" x 1.9" (127 mm x 102 mm x 48 mm)	
SENSOR				
Resolution		 ELECTRICAL		
CO	0.5 ppm	Power Requirement		
NO <sub>2</sub>	0.02 ppm	2-wire mode	16 - 30 VDC	
Repeatability		3-wire mode	16 - 30 VDC	
CO	< 2% of signal	4-wire mode	12 - 30 VAC or 16 - 30 VDC	
NO <sub>2</sub>	< 2% of signal	Current Draw	Typical 25 mA	
Response Time (T <sub>90</sub> )			Linear 4 - 20 mA	
СО	< 150 seconds		Maximum 216 Ω load	
NO <sub>2</sub>	< 30 seconds	Outputs	(wiring plus termination resistor) at 16 VDC	
Cross Sensitivity			Maximum 316 Ω load	
СО	2 - 11	-	(wiring plus termination resistor) at 12 VAC	
	$NO_2$ @ 10 ppm = < 0.1 ppm		VDC 2-conductor shielded 18 awg stranded	
	Cl <sub>2</sub> @ 10 ppm = < 0.1 ppm NO @ 50 ppm = < 5 ppm	Wiring	VDC 3-conductor shielded 18 awg stranded	
	SO, @ 20 ppm = < 0.1 ppm		VAC 4-conductor shielded 18 awg stranded	
	H <sub>2</sub> @ 20°C (68°F) @ 400 ppm = < 60 ppm	Fuse	Automatic resetting thermal	
	C <sub>2</sub> H <sub>4</sub> @ 400 ppm = < 25 ppm			
	NH <sub>3</sub> @ 20 ppm = < 0.01 ppm	USER INTERFACE		
NO	11.5 0 20 mm	Indicator LED	Single color status LED	
NO <sub>2</sub>	$H_2S @ 20 \text{ ppm} = < -40 \text{ ppm}$ $CI_2@ 10 \text{ ppm} = 100 \text{ ppm}$			
	NO @ 50 ppm = < 0.5 ppm	ENVIDONMENTAL (conce	or donardant)	
	SO, @ 20 ppm = < -2.5 ppm	ENVIRONMENTAL (sensor dependant)		
	CO @ 400 ppm = < 0.1 ppm	Operating Temperature	-20°C to 50°C (-4°F to 122°F)	
	$H_2 @ 400 \text{ ppm} = < 0.1 \text{ ppm}$	Humidity	15 - 90% RH non-condensing	
	$C_2H_4 @ 50 \text{ ppm} = < 0.1 \text{ ppm}$			
	NH <sub>3</sub> @ 20 ppm = < 0.1 ppm	CERTIFICATION	CERTIFICATION	
	CO <sub>2</sub> @ 5% volume = < 0.1 ppm		Pending	
		Harmonized Standard	(Tested to CE, C-Tick, CSA & UL North America Sta	



### ACCESSORIES

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

