



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. All models in the LPT series of transmitters come standard with a water / dust tight, corrosion resistant ABS / polycarbonate enclosure with a hinged, secured door. With the optional splash guard installed, the enclosure is IP54 rated - ideal for use in 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.

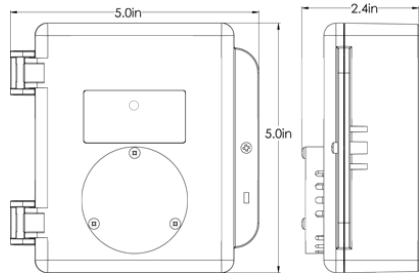
### KEY FEATURES

- » Linear 4 - 20 mA output signal
- » 2-wire loop, 3-wire VDC or 4-wire VAC power
- » Standard water / dust tight corrosion resistant enclosure (drip proof); IP54 certified with optional splash guard installed
- » Single sensor: Carbon monoxide (CO) or Nitrogen dioxide (NO<sub>2</sub>)
- » RoHS compliant package
- » Easy maintenance
- » Economical
- » Auto resetting fuse
- » Includes sensor CEF (calibration extending firmware)
- » Automated calibration procedure

### APPLICATIONS

- » Parking Garages
- » Repair Shops
- » Ice Cleaning Machine Rooms
- » Manufacturing plants
- » Maintenance facilities
- » ... and many more

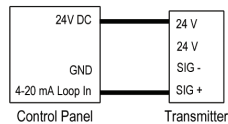
### TECHNICAL DRAWING



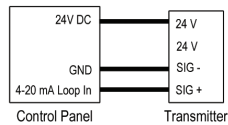
Note: Drawings above are shown with an optional splash guard. Without splash guard, thickness of unit is 2.1" (53.34 mm).

### WIRING

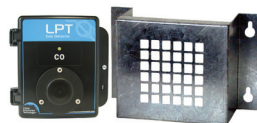
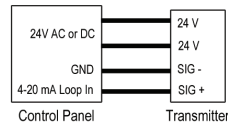
#### 2-Wire Loop



#### 3-Wire VDC



#### 4-Wire VAC



LPT-TCO-5 model, contains a splash guard, is featured with a metal protective guard (picture to left).

**TECHNICAL SPECIFICATIONS**

**GAS TYPE**

Carbon Monoxide (CO)

Nitrogen Dioxide (NO<sub>2</sub>)

**MECHANICAL**

Enclosure ABS / Polycarbonate, IP54 certified with splash guard installed

Weight 200 g (7 oz)

Size 5.0" x 4.0" x 1.9" (127 mm x 102 mm x 48 mm)

**ELECTRICAL**

Power Requirement

2-wire mode 16 - 30 VDC, 1 W, Class 2

3-wire mode 16 - 30 VDC, 1 W, Class 2

4-wire mode 12 - 27 VAC, 50-60 Hz, 1 VA, Class 2

Current Draw

Typical 25 mA

Linear 4 - 20 mA

Maximum 216 Ω load

Outputs

(wiring plus termination resistor) at 16 VDC

Maximum 316 Ω load  
(wiring plus termination resistor) at 12 VAC

Wiring

VDC 2-conductor shielded 18 awg stranded

VDC 3-conductor shielded 18 awg stranded

VAC 4-conductor shielded 18 awg stranded

Fuse

Automatic resetting thermal

**USER INTERFACE**

Indicator LED Single color status LED

**ENVIRONMENTAL** (sensor dependent)

Operating Temperature -20°C to 40°C (-4°F to 104°F)

Humidity 15 - 90% RH non-condensing

**CERTIFICATION**

Conforms to: CSA-C22.2 No. 205-M1983 (R2009)

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.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



شركة آلپ پرداز محیط  
تهران - خیابان آزادی - مابین خیابان شادمهر  
و بزرگراه یادگار امام - شماره ۴۱۷ - واحد ۵  
تلفن: ۰۲۱-۶۶۰۲۸۱۷۲-۵  
E-mail: info@apm-co.ir  
Website: www.apm-co.ir



**SENSOR SPECIFICATIONS**

**CARBON MONOXIDE (CO)**

Resolution 0.5 ppm

Repeatability < 2% of signal

Sensor Response Time (T<sub>90</sub>) 60 seconds

H<sub>2</sub>S @ 20 ppm = < -40 ppm

Cl<sub>2</sub> @ 10 ppm = 100 ppm

NO @ 50 ppm = < 0.5 ppm

SO<sub>2</sub> @ 20 ppm = < -2.5 ppm

Cross Sensitivity

CO @ 400 ppm = < 0.1 ppm

H<sub>2</sub> @ 400 ppm = < 0.1 ppm

C<sub>2</sub>H<sub>6</sub> @ 50 ppm = < 0.1 ppm

NH<sub>3</sub> @ 20 ppm = < 0.1 ppm

CO<sub>2</sub> @ 5% volume = < 0.1 ppm

Life Span

6+ years

**NITROGEN DIOXIDE (NO<sub>2</sub>)**

Resolution 0.02 ppm

Repeatability < 2% of signal

Sensor Response Time (T<sub>90</sub>) < 30 seconds

H<sub>2</sub>S @ 20 ppm = < -40 ppm

Cl<sub>2</sub> @ 10 ppm = 100 ppm

NO @ 50 ppm = < 0.5 ppm

SO<sub>2</sub> @ 20 ppm = < -2.5 ppm

Cross Sensitivity

CO @ 400 ppm = < 0.1 ppm

H<sub>2</sub> @ 400 ppm = < 0.1 ppm

C<sub>2</sub>H<sub>6</sub> @ 50 ppm = < 0.1 ppm

NH<sub>3</sub> @ 20 ppm = < 0.1 ppm

CO<sub>2</sub> @ 5% volume = < 0.1 ppm

Life Span

5 - 6 years

**PRODUCT CODES**



Single Channel Sensor: \_\_\_\_\_

Electrochemical

**TCO** CO sensor (0 - 200 ppm)

**END** NO<sub>2</sub> sensor (0 - 10 ppm)

Options: \_\_\_\_\_

- None

**S** Splash Guard (not available for O<sub>3</sub> or Cl<sub>2</sub> sensors)

**ACCESSORIES**

**CET-715A-CK1**

Calibration kit for 17, 34, 58, 74, 103 L cylinders, 0.5 LPM flow regulator & adapter to fit 17 L cylinder

**SCS-8000-RSG**

Metal protective guard, small, 16 gauge, galvanized metal guards for transmitters