

MODEL OEM 100-CO



Neutronics
Gas Analysis Solutions

Carbon monoxide analyzer - wall mount

For safety critical applications in the workplace



Compact. Accurate. Reliable.

- 0 to 200 ppm measurement range
- Easy to install wall mount NEMA 4X fiberglass enclosure
- Electrochemical sensor is unaffected by background gases
- Alarm horn with silence switch
- Large 1/2" high LED display

Description

The OEM 100 CO is a wall mounted analyzer that accurately measures carbon monoxide in the range of 0 to 200 ppm. Designed for continuous operation, this analyzer measures and displays the level of carbon monoxide in a workplace area and provides audible and visual alarms if the level exceeds predetermined setpoints.

Compact design

The analyzer is installed in a NEMA 4X fiberglass enclosure with a large window that provides a clear view of the entire control panel. An optional flowmeter and flow switch located inside the enclosure allows the user to adjust the flow rate of the sample gas to ensure that there is sufficient gas flow across the sensor to produce an accurate measurement.

Reliable low cost sensor

The electrochemical sensor ensures reliable performance and fast response for safety critical measurements. The sensor is a small fuel cell that measures carbon monoxide directly. It is easily replaceable and unaffected by most background gases.

Simple operation

As the sample gas from the area passes across the CO sensor, the CO sensor produces a small current proportional to the amount of CO in the sample stream. The current is amplified, filtered, and electronically conditioned by the analyzer circuit board. The resulting signal is then shown on the LED display and compared with the two adjustable alarms. The alarms are triggered if the signal reaches the predetermined setpoints.

Two adjustable alarms

Each alarm has a dedicated relay with both normally open and normally closed contacts. Alarm LED status indication is provided for each alarm on the front panel. Both alarms activate a piezoelectric horn. The alarms are configured at the factory as low and high level alarms with settings of 20 ppm and 50 ppm. The "set alarms" switch is used to adjust the potentiometers to match the desired setpoints.

Alarm hysteresis

Both alarms have a 1 ppm CO hysteresis, which is positive for the high and low alarms. If the low alarm is set to 20 ppm, the alarm relay will activate at 21 ppm and deactivate at 20 ppm.

Test features

The alarm circuitry, alarm relays, alarm LEDs, and horn can be tested simultaneously by pressing the "press to test" switch on the front panel.

Horn silence

A 90 dB alarm horn is mounted on the front panel. The "horn silence" switch will disable the horn. The alarm horn will stay disabled as long as it remains in the silence position.

Low power/switch open alarm

The low power/switch open (LPSO) alarm detects a power supply problem and the status of an external switch or relay. The LPSO red LED will illuminate if the supplied power drops below 6.5 VDC or if an external switch or relay wired to the main terminal block is in the open state.

Easy to use and maintain

Ensuring safe and reliable operation of the OEM 100 CO analyzer requires periodic calibration and sensor replacement. The sensor has a typical expected service life of 2 years. It will need to be replaced when the analyzer cannot be adjusted to match the span gas during calibration. A new filter screen and O-Ring should be installed when replacing the sensor.

Calibration

The OEM 100 CO analyzer should be calibrated every month. The calibration procedure requires the use of a zero gas and a span gas with a known level of carbon monoxide. The zero and span potentiometers located on the front panel are used to adjust the display to match the correct gas concentrations.

Loop powered current output

The OEM 100 CO analyzer is available with loop powered 4-20mA current output calibrated for 0 to 200 ppm CO.



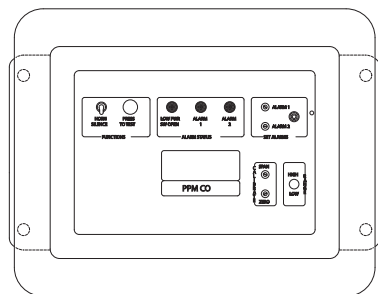
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CO analyzer - wall mount

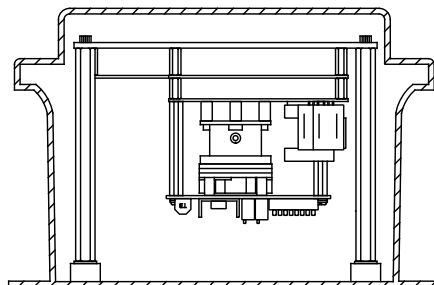
Specifications

Type	Wall mount carbon monoxide monitor
Operating range	0 to 200 ppm CO
Maximum overload	500 ppm CO
Sensor type	Electrochemical
Expected sensor service life	2 years in air
Resolution	1 ppm
Response time	T ₉₀ < 40 seconds
Linearity	±1%
Pressure range	Atmospheric ±10%
Temperature range	35° to 122° F (2° to 50° C)
Relative humidity	0 to 90%, non-condensing
Warm up time	5 seconds
Low alarm factory setpoint	20 ppm
High alarm factory setpoint	50 ppm
Power supply	115/230 VAC ±20%, 50/60 Hz @ 50mA or 9 -15 VDC @ 400mA
Flowmeter*	0.5 to 4.0 lpm @ 4 psig max. input
Flow switch*	Normally open, 0.5 lpm setpoint
Analyzer warranty	12 months from date of shipment
Sensor warranty	6 months from date of shipment
Enclosure	Fiberglass with hinged window cover, NEMA 4X
Dimensions (SP-C-1634)	9.62" (244mm) length x 7.46" (189mm) width x 6.22" (158mm) height
Dimensions (SP-C-1632)	12.00" (305mm) length x 10.00" (254mm) width x 6.00" (152mm) height
Weight	8.0 lbs. (3.6 Kg)

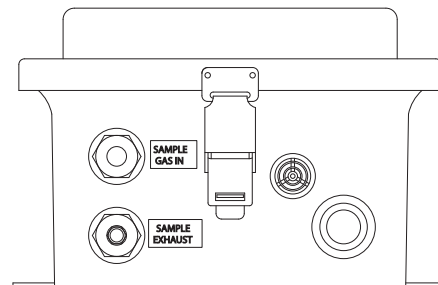
Specifications are subject to change without notice.
*Optional items available upon request



Front view



Analyzer mounting detail



Bottom view

Order information

Part	Part number
Model OEM 100 CO analyzer	7-06-2000-03-0
Model OEM 100 CO analyzer (4-20mA output)	7-06-2000-08-0
Sensor replacement kit (sensor, filter, screen, O-ring)	6-01-1001-37-0
Replacement fuse	1-11-1120-03-0
Potentiometer adjustment tool	2-03-1000-00-0
Flowmeter, 0 to 4.0 lpm	2-05-2003-00-2
90 dB horn	1-15-3002-00-0
Sample gas flow switch	6-01-1000-99-3



Neutronics
Gas Analysis Solutions
456 Creamery Way
Exton, PA 19341

Tel: 610.524.8800
Fax: 610.524.8807
Email: info@neutronicsinc.com

www.analyzegas.com

