



TELEDYNE INSTRUMENTS
Monitor Labs
A Teledyne Technologies Company



sensor-e®

Gas Filter Correlation CO Analyzer (TML30)

0-1 ppm to 0-1000 ppm, user selectable

Gas Filter Wheel for CO specific measurement

14 meter path length for sensitivity

Microprocessor controlled for versatility

Multi-tasking software allows viewing test variables while operating

Continuous self checking with warning alarms

Ethernet and RS232 ports for remote operation

Digital status outputs provide instrument condition

Adaptive signal filtering optimizes response time

GFC wheel guaranteed against leaks for 5 years

Temperature and Pressure compensation

Internal data logging with 1 minute to 365 day multiple averages

Sensor-e.com remote operation software



The sensor-e® CO (TML30) measures carbon monoxide by comparing infrared energy absorbed by a sample to that absorbed by a reference gas according to the Beer-Lambert law. This is accomplished with a Gas Filter wheel which alternately allows a high energy light source to pass through a CO filled chamber and a chamber with no CO present. The light path then travels through the sample cell, which has a folded path of 14 meters.

The energy loss through the sample cell is compared with the zero reference signal provided by the gas filter to produce a signal proportional to concentration, with little effect from interfering gases within the sample. This design produces excellent zero and span stability and a high signal to noise ratio allowing extreme sensitivity. Multi-tasking software gives real time indication of numerous operating parameters and provides automatic alarms if diagnostic limits are exceeded.

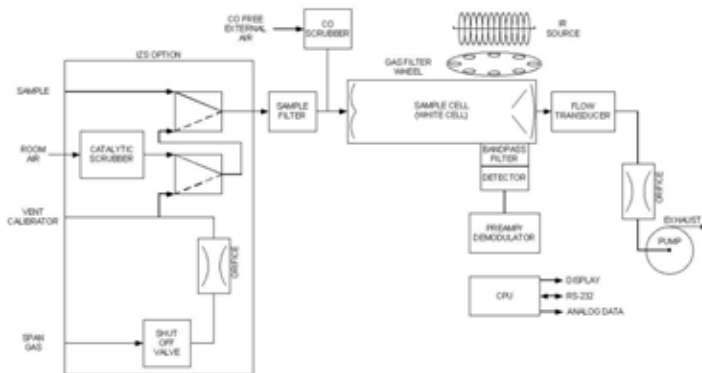
Built-in-data acquisition and internal memory allows logging multiple parameters including average and instantaneous values, calibration data and operating parameters. Stored data can be retrieved via the Ethernet port or from the front panel.

The sensor-e® CO features rugged construction and is designed to perform with minimum attention. In the event maintenance is required, modular construction makes service a simple operation.



sensor-e®

Gas Filter Correlation CO Analyzer (TML30)



SPECIFICATIONS

Model:	TML-30
Ranges:	0-1 ppm to 0-1,000 ppm full scale, user selectable Dual ranges and autoranging supported
Units:	ppb, ppm, pg/m ³ , mg/m ³
Zero Noise:	<0.02 ppm
Span Noise:	<0.5% of reading above 5 ppm (RMS)
Lower Detectable Limit (LDL):	0.04 ppm
Zero Drift:	<0.1 ppm/24 hours, <0.2ppm/7 days
Span Drift:	<0.5% of reading/24 hours, 1% reading/7 days
Lag Time:	10 seconds
Rise and Fall Time:	<60 seconds to 95%
Linearity:	1% of full scale
Precision:	0.5% of reading
Sample Flow Rate:	800 cc/min ± 10%
Operating Temperature Range:	5 - 40°C

Dimensions (HxWxD):	7" (178 mm) x 17" (432mm) x 23.5" (597 mm)
Weight:	40 lbs
Power:	100V, 115V, 200-240V, 50/60Hz
Analog Outputs:	Bi-polar, 10V, 5V, 1V, 100 mV, selectable
Recorder Offset:	±10%
Serial Port 1:	RS-232, DB-9M/RS485 optional
Serial Port 2:	Ethernet
Status (Digital):	8 outputs and 6 inputs (opto-isolated)
Current Output:	Optional 4-20 mA isolated outputs (select up to 3 channels)
Approvals:	US EPA, CE

NOTE: The values expressed above are in accordance with EPA definitions. All error specifications are based on constant conditions.

sensor-e® CO Analyzers include:

- * Internal pump
- * Auto ranging and dual ranges
- * 47 mm diameter particulate filter
- * 8 isolated digital status outputs
- * 6 isolated digital inputs
- * Multi-drop RS-232 connection
- * Ethernet Port
- * Sensor-e.com software

Supported voltages:

- 100V
- 220V - 240V
- 115V

Supported frequencies:

- 50Hz
- 60Hz

Selectable output voltage:

- 10V
- 5V
- 1V
- 100mV

Additional Option:

- RS-485 communications
- 4-20mA isolated output (specify up to three channels)
- O₂ sensor (0-25%)
- NDIR CO₂ sensor (0-20%)

(Note: Either O₂ or CO₂ can be added; select one)

Accessories:

- RS-232 Cable
- Expendables Kit
- Spare Parts Kit
- Rack Mount Slides