



TELEDYNE INSTRUMENTS
Advanced Pollution Instrumentation
A Teledyne Technologies Company

MODEL **300EM**

Gas Filter Correlation CO Analyzer



- ▶▶ **Standard two year warranty**
- ▶▶ **Ranges, 0-5 ppm to 0-5000 ppm, user selectable**
- ▶▶ **Gas Filter Wheel for CO specific measurement**
- ▶▶ **GFC wheel guaranteed against leaks for 5 years**
- ▶▶ **Multi-tasking software allows viewing of test variables during operation**
- ▶▶ **Continuous self checking with alarms**
- ▶▶ **Dual bi-directional RS-232 ports for remote operation (optional RS-485 or Ethernet)**
- ▶▶ **Digital status outputs indicate instrument operating condition**
- ▶▶ **Adaptive signal filtering optimizes response time**
- ▶▶ **Temperature & Pressure compensation**
- ▶▶ **Internal data logging with 1 min to 365 day multiple averages**
- ▶▶ **APIcom remote operation software**

The Model 300EM 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 then travels through the folded path sample cell. This technique allows near interferent-free operation.

The M300EM design produces superior zero and span stability and a high signal-to-noise ratio, allowing excellent 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 RS-232 port, optional Ethernet port, or from the front panel.

The Model 300EM features rugged construction and is designed to perform with a minimum of attention. Regular maintenance is greatly simplified through the use of modularized construction.

FREE Customer Support by telephone and email for the life of the instrument

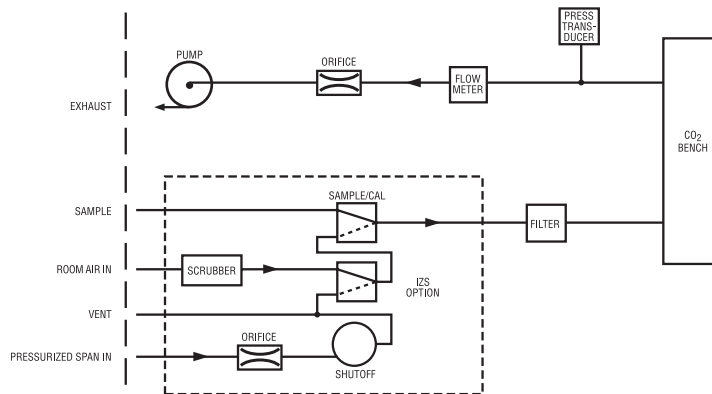


MODEL 300EM Gas Filter Correlation CO Analyzer

Specifications

Ranges:	0-5 ppm to 0-5,000 ppm full scale, user selectable	Dimensions (HxWxD):	7" (178 mm) x 17" (432 mm) x 23.5" (597 mm)
Units:	Dual ranges and auto ranging supported ppm, mg/m ³	Weight:	40 lbs (24.0 kg)
Zero Noise:	< 0.1 ppm	Power:	100V - 120V, 220V - 240V, 50/60 Hz, 250W
Span Noise:	< 0.1 ppm (RMS)	Analog Outputs:	10V, 5V, 1V, 100mV, selectable
Lower Detectable Limit (LDL):	0.2 ppm	Current Output:	Optional 4-20 mA isolated outputs (select up to 3 channels)
Zero Drift:	< 0.5 ppm/24 hours, < 1 ppm/7 days	Recorder Offset:	±10%
Span Drift:	< 0.5% of reading/24 hours, < 1% of reading/7 days	Serial Outputs:	Serial Port 1: RS-232, DB-9M Serial Port 2: standard RS-232 or optional RS-485, DB-9F, Ethernet
Lag Time:	10 seconds	Status (Digital)	8 outputs, 6 inputs (opto-isolated), 4 alarm outputs (optional)
Rise and Fall Time:	< 60 seconds to 95%	Approvals:	CE
Linearity:	1% of full scale	NOTE: The values expressed above are in accordance with EPA definitions. All error specifications are based on constant conditions.	
Precision:	1.0% of reading		
Sample Flow Rate:	800 cc/min ±10%		
Operating Temperature Range:	5 - 40°C		

Schematic



How to Order

Model 300EM Gas Filter Correlation CO Analyzer includes:

- Standard two year warranty
- Internal pump
- Auto ranging and dual ranges
- 47mm diameter particulate filter
- 8 isolated digital status outputs
- 6 isolated digital inputs
- Bi-directional RS-232
- APIcom remote control software

Specify input AC voltage & frequency:

- | | |
|---|------------------------------------|
| <input type="checkbox"/> 100V - 115V | <input type="checkbox"/> 50Hz |
| <input type="checkbox"/> 220V - 240V | <input type="checkbox"/> 60Hz |
| <input type="checkbox"/> 230V/50Hz (CE) | <input type="checkbox"/> 220V/60Hz |
| <input type="checkbox"/> 240V/50Hz | |

Specify output DC voltage:

- 10V 5V 1V 100mV

Optional Equipment:

- Rack mount brackets (19") with chassis slides
- Rack mount brackets only
- 4-20mA isolated outputs (specify up to three channels)
- Multi-drop RS-232 connection
- RS-485 communications
- Ethernet (replaces one serial port)

- O₂ sensor (0-25%)
- NDIR CO₂ sensor (0-20%)
(Note: Either O₂ or CO₂ can be added; select one)

Calibration Options:

- Stainless steel valves for selection of customer-supplied zero and span gas
- Internal zero air scrubber

Accessories:

- RS-232 Cable
- Expendables Kit
- Spare Parts Kit

Specifications subject to change without notice. Printed documents are uncontrolled. SAL000012 A (DCN 5058) M300EM/08/08/08.



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9480 Carroll Park Drive ■ San Diego, CA 92121-5201

Ph. 858-657-9800 Fax 858-657-9816

Email api-sales@teledyne.com

For more information about the Teledyne API family of monitoring instrumentation products, call us or visit our website at

www.teledyne-api.com

