

Non Dispersive Infrared Carbon Monoxide Analyzer – CO12e

DTN partners with ENVEA to provide organizations worldwide with the best technologies and systems and help different authorities and institutions, both public and private, to monitor air quality and achieve their goals and objectives.

Applications

- Continuous indoor and outdoor air quality monitoring
- Stationary and mobile AQMS laboratories
- Quality control in food and beverage industry
- Medical gases: fail-safes and quality control
- Continuous emissions monitoring (CEM) by dilution
- Background, rural, urban or sub-urban, industrial, traffic, roadside and canyon street studies

Features

- Excellent metrological performances for CO measurements in the range 0-50 or 0-300 ppm
- Breakthrough mechanical design for weight and power saving as well as thermal insulation and reliability
- Innovative conception of the optical module for excellent sensitivity and signal stability
- Automatic or programmable response time adjustment, ensuring efficient monitoring of low concentration levels
- Acquisition synchronized to the correlation wheel rotation for great accuracy and repeatability
- Real-time calibration graph, animated synoptic, auto-diagnostic, control and maintenance data screens can be displayed while the instrument is operating
- Service assistance inside: detects early signs of trouble, allows predictive maintenance, identifies the needed service and guides service operations step by step: increased productivity on site, reduced downtime, more efficiency, less training
- Local and remote control through digital port (configuration, calibration, test and diagnosis parameters for maintenance support)
- Ultra low power consumption: environmentally-friendly and cost-saving analyzer
- Includes embedded Communication Protocol for XR[®] Software with automatic recognition and configuration
- Automatic recognition of plugged electronic boards or optional devices: plug & play principle
- Optional: 24V power supply and enhanced temperature range for mobile AQMS laboratories or solar powered air quality monitoring stations

The CO12e is a highly accurate criteria pollution monitor for the continuous monitoring of carbon monoxide. It is the result of decades of expertise combined with patented technology to make you achieve the best carbon monoxide measurements available on the market in a fast, environmentally friendly and reliable manner.

Its measurement principle is based on carbon monoxide detection by absorption of infrared light. The concentration of CO in the sample is determined by measuring the quantity of infrared light, at a specific wavelength, absorbed by the sample gas as it flows through a multi-reflection chamber. The CO12e features excellent accuracy thanks, among many others, to the concept of integrating the measuring module and the correlation wheel into an EPP foam box: the temperature is kept stable and the influence of external parameters is reduced.



Options

- No-screen analyzer
- Built-in module for monitoring (range: 0-2000ppm by NDIR)
- RS232 or RS485 Serial interface (via USB port)
- External opto-isolated I/O interface with:
 - 4 independent analog inputs
 - 4 independent analog outputs
 - 4 remote control inputs
 - 6 dry contacts outputs
- 24V power supply & enhanced T° range up to +50°C for use without air conditioner

E-series advantages



- Environmental friendly: Low carbon footprint. Over 95% of the analyzer can be recycled. Ultra low power consumption
- Economic, easy and reduced maintenance
- Service Assistant inside
- 7" TFT colour touch screen
- Interactivity: connected instruments
- SmartStatusLight™ power button for status of operation (On/Off, alarm, maintenance required)
- Common electronic boards: optimized spare parts stock

Compliance with:

EN 14626 (2012), EN 15267, 2008/50/EC, ISO 4224 40 CFR PART 53 SUB B & SUB C



U.S. EPA Approved
RFCA-0915-228

Tech specs

Measurement range	0-50 ppm (or 0-300 ppm on request)
Detection limit (2σ)	0.05 ppm
Noise	0.025 ppm
Zero drift	<0.2 ppm / 7 days
Span drift	<0.5% / 7 days
Response time	20 - 90 sec (programmable)
Linearity	±1% (of F.S.)
Sample flow-rate	1 l/min
Data storage	1 year (minute data)
Output connectivity	Ethernet (RJ45 socket, UDP protocol, Modbus TCP), 3 x USB port, 2 dry contacts
Dimensions	483 x 545 x 133 mm (L x W x H)
Chassis	19" rack, 3U
Weight	8 kg (15.6 lbs)
Standard operating temp.	+5°C to +40°C
Power supply	115 V, 60 Hz - 230 V, 50 Hz
Power consumption 220V	22 W.h
Pressure influence	<0.1 ppm / kPa
Internal sampling pump	
Filter valve block for calibration control (zero & span)	
Built-in web server with full remote emulation of the analyzer	
Pressure and temperature compensation	

CO12e Operating Principle

