

Model E12-41

Carbon Dioxide Transmitter

The Best Choice for Reliable CO₂ Measurement



Carbon Dioxide is a widely used industrial gas that is relatively inert and non-toxic. However, high levels of CO₂ can displace enough oxygen in a confined space to create an immediate hazard to personnel. The hazard exists mainly in carbon dioxide cylinder storage areas, or in areas where CO₂ might leak from process piping or combustion system exhausts.

Because carbon dioxide is a very stable gas, an infrared optical sensor is the best choice for reliable measurement. The IR sensor detects CO₂ by measuring the amount of infrared energy absorbed by the gas over a specific optical path. The Model E12-41 CO₂ Transmitter employs a Non-dispersive Infrared (NDIR) sensing system that is stable over long periods of time. All that's needed is zero adjustment

every few months for accurate and trouble free operation. And the transmitter is easy to interface with ATI's Series B14 alarm modules to provide a complete CO₂ alarm system when needed.

E12-41 transmitters are available in two versions, one for PPM level measurements and one for percent levels. Sensors are available for either diffusion mode for PPM measurements or with tubing connections for flow through applications when measuring either percent or PPM levels. Sample pumping systems can also be supplied if needed. For almost any carbon dioxide monitoring requirement, the E12-21 provides a simple and economical solution.



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Specifications

Sensor Type:	Non-dispersive infrared (NDIR)
Range:	0-2000, 0-3000, or 0-5000 PPM 0-1, 0-3, 0-10, 0-30, or 0-100%
Output:	0-20 or 4-20 mA, 500 ohms maximum
Accuracy:	± 2% of Span
Repeatability:	± 0.3% at zero ± 1.5% at span
Response Time:	T90 = 10 seconds for flow systems. Switch selectable damping.
Sampling Mode:	Diffusion or pumped sample for PPM ranges Pumped sample only for percent ranges
Power:	24 VDC, 300 mA maximum
Temp. Limits:	0-45° C
Humidity:	0-95% non-condensing
Enclosure:	NEMA 4X for pumped sample system NEMA 1 for diffusion systems
Size:	9.0"L x 5.5"W x 3.6"D (228 x 140 x 91 mm)



Model E12 - 41 - FFFF - G - H CO₂ Transmitter

Specify the model number using the suffixes below:

Suffix FFFF-Range

Only the following ranges are available. No alternates.

2000 – 0-2000 PPM

3000 – 0-3000 PPM

5000 – 0-5000 PPM

0001 – 0-1%

0003 – 0-3%

0010 – 0-10%

0030 – 0-30%

0100 – 0-100%

Suffix G - Units of Measurement

1 - PPM

3 - %

Suffix H - Transmitter Type

1 - Diffusion mode sampling (PPM units only)

2 - Flow through for pumped samples



Represented By:



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