**NOVA ANALYTICAL SYSTEMS**

**PORTABLE FLUE GAS CARBON MONOXIDE ANALYZER**

**310 SERIES**

**APPLICATIONS**

For boiler or furnace flue gas analysis where a continuous oxygen analyzer already exists, but carbon monoxide (CO) must still be measured.

**FEATURES**

- Rugged design that is easy to operate and maintain
- Fast warm-up and response
- Disposable, long life electrochemical CO sensor
- Rechargeable battery operation
- Use on flue gas from any fuel
- Dual range: 0-2000 ppm & 0-4.00% CO
- Built-in sample pump, filter and flowmeter
- Continuous condensate removal
- Rapid reading recovery after CO 'overdose'
- Stainless steel probe with sample hose

**OPTIONS**

- Recorder outputs of 0-1V or 4-20 mA (can be isolated)
- Stack temperature readout (310T)
- Special sampling probes
- Sample pre-cooler
- Suitcase (K) style cabinet available
- CO alarm with LED
- Detachable/portable data logger

**CALIBRATION**

- Air for zero
- Analyzed calibration gas mixture of PPM CO in nitrogen for span

**NOVA ANALYTICAL SYSTEMS**

[www.nova-gas.com](http://www.nova-gas.com)
DESCRIPTION

The Nova 310 Series Portable Flue Gas CO Analyzer utilizes a reliable, customer-replaceable electrochemical sensor which responds quickly to the CO present in the flue gas sample. Its life expectancy is between 3 and 4 years.

In operation, a built-in sample pump draws in the flue gas sample through the S.S. probe, 12 ft sample hose, condensate removal filter, secondary filter and flow meter then on to the CO detector. The detected CO is displayed on an LCD digital meter which has a switchable backlight for use in dark areas. A dual range switch allows either the 0-2000 PPM or the 0-4.00% range to be displayed.

A rechargeable battery provides enough power to the pump and electronics for about 20 hours of continuous operation. The analyzer can still be operated while it is being charged. A red LED light on the front panel indicates when to recharge. A green LED light indicates when the charge is complete. The analyzer is supplied with a 12 ft. (4 m) sample hose and S.S. probe.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Description</th>
<th>Customer-replaceable electrochemical CO sensor</th>
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<tbody>
<tr>
<td>Ranges Available</td>
<td>0-2000 PPM and 0-4.00% CO - switch selectable (other ranges available)</td>
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<tr>
<td>Resolution</td>
<td>1 PPM in PPM range; 0.01% CO in % range</td>
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<tr>
<td>Accuracy and Repeatability</td>
<td>Better than 1% of full scale, based on a 0-2000 PPM range</td>
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<td>Drift</td>
<td>Less than 1% full scale per day</td>
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<td>Response Time (T-90):</td>
<td>20-30 seconds</td>
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<tr>
<td>Ambient Temperature Range</td>
<td>0-50°C (32° to 122°F)</td>
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<tr>
<td>Linearity</td>
<td>Better than 1% of full scale</td>
</tr>
<tr>
<td>Size and Weight</td>
<td>WP style - approx. 11½&quot; L x 8&quot; W x 7¾&quot; H @ 8 lbs (29 x 20 x 18 cm @ 3.6 kg)</td>
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<tr>
<td></td>
<td>K style - approx. 14&quot; L x 10½&quot; W x 6&quot; H @ 12 lbs (36 x 27 x 15 cm @ 5.5 kg)</td>
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<tr>
<td>Power</td>
<td>115VAC and rechargeable battery operation, recharger included. (220 VAC available)</td>
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<tr>
<td>Output Options</td>
<td>Optionally available 4-20 mA or 0-1 VDC</td>
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<tr>
<td>Alarms</td>
<td>High or low CO alarm with LED (optional)</td>
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Nova reserves the right to specification changes which may occur with advances in design without prior notice.

UNIQUE APPLICATIONS

All Nova analyzers are built using proven technologies and techniques. If this product does not suit your application, please contact Nova at 1-800-295-3771. In many cases, we are able to build an analyzer specific to your needs.