



Model 1634 Carbon Analyser



Accurate carbon potential measurement for heat treatment applications

The Novatech 1634 operates with a variety of gases including:

- Propane
- Methane
- Nitrogen / methanol

Using the Novatech 1634 is easy and convenient:

- Simply enter the gas component data via the analyser's internal keyboard!
- The 1634 is self-calibrating, performing a calibration cycle for all inputs, every minute.
- Output to a computer or printer is provided via RS233 or RS485 ports, facilitating diagnostics of the analyser, probe or combustion appliance.

The Novatech 1634 Analyser readily adapts to your process control system

The 1634 Analyser has two 4-20 mA linearised outputs to operate with remote controllers and/or indicators.

The instrument's common alarm relay can activate remote process alarm devices.

The separate, 'probe not ready' alarm relay prevents erroneous operation.

During auto-purge cycles, the analyser output is frozen, and the purge relay is activated.

An alarm horn driver relay is provided.

Novatech's unique dual sensor feature prevents costly shutdowns when a sensor failure occurs

The Novatech 1634 Carbon Analyser accepts inputs from two sensors, averaging the two readings, or providing separate 4-20mA outputs for each sensor. In case of either one of the sensors failing, the analyser warns the operator and locks onto the remaining sensor so that the process can continue to operate.

The Novatech 1634 tells you what's happening

Plant operators are alerted to failure of the probe by a plain English message on the Analyser two-line LCD readout. There are 20 probe and analyser alarms, plus 4 process alarms. The upper line display indicates:

0 to 1.5% carbon (accurate from 0.3 to 1.2%).

Note: gases allowed for are propane, methane, nitrogen/methanol mix.

The lower line display can indicate any one of the following:

- Oxygen %
- Carbon set point
- Probe impedance
- Probe emf
- Probe temperature
- Auxiliary thermocouple temperature
- Ambient temperature
- Date/time
- Run hours

The Novatech 1634 can control your furnace atmosphere

The Novatech 1634 has a built-in carbon controller thus providing furnace atmosphere control. Features include:

- ON/OFF control
- Proportional ON/OFF control
- Proportional 4-20 mA control signal
- Proportional Up/Down control

Specifications

Inputs

- Zirconia oxygen probe with integral or separate furnace TC types K, R, S or N
- Purge pressure switch
- Remote alarm accept

Outputs

- Two linearised 4-20 mA DC outputs (max load 1000Ω)
- Common alarm relay
- Three other alarm relays with selectable functions

Computer

- RS232-C or RS 485 MODBUS™ protocol for connection of a computer terminal or printer for diagnostics of the analyser, probe or furnace.

Range of Output

Field selectable from the following:

- 0 to 1.5% carbon (accurate from 0.3 to 1.2%) or 1000 to 1300mV (probe emf)
- Probe Temperature
- Log Oxygen
- Reducing Oxygen

Display

Range of Indication Upper Line

- Auto ranging from 0 to 1.5% carbon

Indication Choice, Lower Line

- Oxygen %
- Probe impedance
- Probe emf
- Probe temperature
- Auxiliary thermocouple temperature
- Ambient temperature
- Ambient RH
- Date/time
- Run hours
- Last service date

Accuracy

- $\pm 0.02\%$ carbon

Relay Contacts

- 0.5A 24 VAC, 1A 36 VDC

Ambient Temperature

- 0-50°C

Power Requirements

- 240 or 110V, 50/60 Hz 5 VA

Weight

- 3.2Kg

Dimensional and Mounting Details

- 260mm wide x 160mm high x 95mm deep
- Suitable for wall or surface mount

Distributed by:

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