

FurnaceDoctor®-PRO PORTABLE INFRARED GAS ANALYZER

FOR HEAT TREAT ATMOSPHERES

FEATURES

- Accurate, affordable infrared measurement of CO, CO₂, and CH₄
- Computation of % Carbon, Dew-point and expected O₂ probe millivolts
- Easy to read 7 in. LCD display with touchscreen
- Built-in Ethernet
- USB 2 high speed port for data retrieval
- CQI-9 compliant encrypted data logging and on-screen charts
- Long life, quick-change lithium ion battery with charge indicator (spare batteries available)
- High-volume long-lasting filter and a secondary, self-contained, long-lasting sub-micronic filter
- Handy Process Calculator
- Built-in purge port satisfies safety requirements

BENEFITS

- Accurate calculation of atmosphere carbon potential
- Verification of oxygen probe accuracy
- Easy identification of furnace atmosphere problems and furnace condition
- Evaluation of Endo and Exo generator performance, and catalyst condition
- Optimize nitrogen methanol system performance
- Easy retrieval of data logged gas analysis

EXTENDED MEASUREMENT RANGES

For both endothermic & exothermic furnace atmospheres. Can verify any process that uses "lean" or "rich" exothermic atmospheres such as bright annealing, brazing, or lamination annealing.

GET CQI-9 COMPLIANT WHILE
IMPROVING CONTROL OVER
YOUR PROCESS



FurnaceDoctor®-Pro		www.group-upc.com	
CO [%]	19.6	CP [%]	0.14
CO2 [%]	1.000	C [%]	0.14
CH4 [%]	10.13	C+CH4 [%]	0.55
H2 [%]	40	O2 [mV]	1,035
°F	1,699	DPT [°F]	75
Alloy Factor [%]	100	Logging: OFF	Change
CH4 Factor [%]	65.0	***	
Furnace Mode	Change	Main Menu	
Endo Mode	Change		

FOR CQI-9 COMPLIANCE

SUITABLE FOR:

- Annealing
- Austempering
- Carbon Correction
- Carbonitriding
- Carburizing
- Martempering
- Neutral Hardening
- Normalizing
- Precipitation Hardening
- Stress-Relieving

If your process is not listed above, please call us for assistance.

UPC·MARATHON

A NITREX COMPANY

FurnaceDoctor®-PRO PORTABLE INFRARED GAS ANALYZER

ADDITIONAL FEATURES

- Enter furnace temperature into the analyzer to compute:
 - Equivalent % Carbon potential
 - Expected probe millivolts for that % Carbon at that temperature
 - Dew point
 - Process Calculator for computing % Carbon or Dewpoint from known or measured furnace atmosphere values
- VNC server for remote and real-time access to analyzer
- Optional wireless network connection to plant network for data logging

CALIBRATION

- UPC-Marathon provides calibration to primary standard-grade gases in our facility. A calibration certificate is provided to satisfy your in-house documentation requirements.
- We also supply traceable certified grade gas cylinders and associated equipment for calibration in your facility.

CO [%]	20	O2 [mV]	1,143
CO2 [%]	0.2	DPT [°F]	45
CH4 [%]	1.1	CP atm [%]	1.21
H2 [%]	40.0	C [%]	1.21
°F	1,550	C+CH4 [%]	1.25
Alloy Factor [%]	100	Sat.C [%]	1.000
CH4 Factor [%]	0	O2 [%]	4.615E-20

Calculation Method Set to:

☒ Use Gas Input ☐ Use mV Input ☐ Use DPT Input

CALCULATE **Main Menu**

Handy Process Calculator

Enter Text

OPERATOR LOG NOTES ARE ENTERED HERE.

OPERATOR LOG NOTES ARE ENTERED HERE.

1 2 3 4 5 6 7 8 9 0

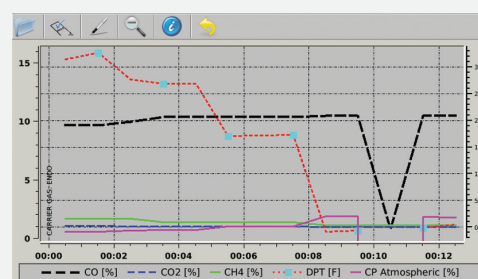
Q W E R T Y U I O P

A S D F G H J K L Back

Z X C V B N M . - Clear

Close

Operator Log Notes Screen



Examples of a Log Screen

CHARACTERISTICS	CO2	CO	CH4
RANGES ENDOTHERMIC EXOTHERMIC	0-2% 0-20%	0-30% 0-20%	0-10% 0-10%
RESOLUTION	20 ppm	0.02%	0.02%
ACCURACY	1% of range	2% of range	2% of range
OPERATING TEMPERATURE	40-120 °F (4-49 °C)		
RELATIVE HUMIDITY	5% - 90% non-condensing		
STABILITY	<±2% over 12 months		
REPEATABILITY	Zero ±0,3 %, Span ±1,5%		
POWER REQUIREMENTS	Analyzer: 15 VDC Internal Battery Charger: 10-220 VAC, 50-60 Hz		