



HIGH ACCURACY

m e a s u r e m e n t i n s t r u m e n t s

PRODUCT DATASHEET

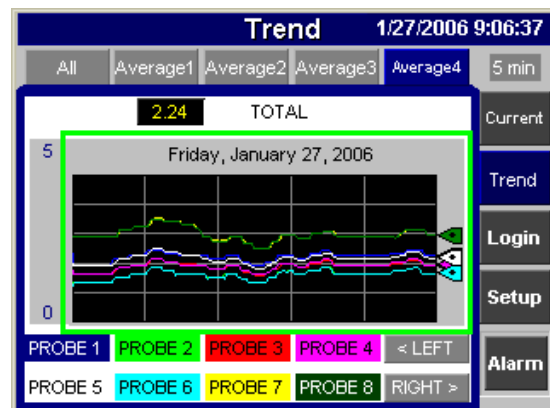
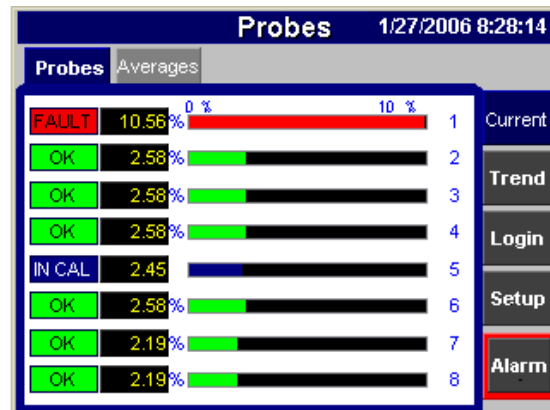
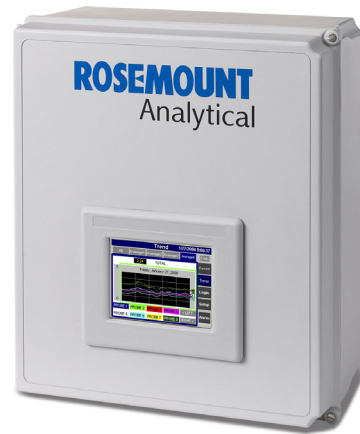
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OxyBalance Oxygen Display and Averaging System

Large combustion processes continually require improved gas analysis in order to maintain the best heat rate performance. The OxyBalance system is a display and averaging system that assists plant operations in setting overall fuel/air ratios as well as providing a tool for balancing individual burners or sets of burners.

Features

- Graphically displays and trends from 1-8 oxygen measurements
- Probe inputs may be from Rosemount Analytical, Westinghouse or any competitive oxygen probe with a 4-20 mA signal output
- Auto Sense – automatically detects probes when they are wired into the system
- Generates up to 4 signals (4-20 mA) as programmable averages
- Failed or calibrating probes are automatically removed from the average
- Individual probe readings remain autonomous and are unaffected by any potential failure of the OxyBalance unit
- Variable time scale trends for each individual probe value, as well as for up to 4 averages
- Password protection for setup menus
- No single point of failure – individual probe 4-20 mA signals going to the DCS are unaffected by a power supply or other failure of the OxyBalance



Specifications¹

Ambient Environment:

Temperature Specification

-5°C to 35°C

Ambient temperature effect on electronics:

less than .01% of reading per 10°C

Vibration

IEC 68-2-6 and ISA S37.3

Shock

IEC 68-2-31 and ISA S37.3

Enclosure

NEMA 4X

Area Classification

General Purpose

Power Requirements:

110V/240 V, 50/60 Hz

I/O:

Analog Inputs

4-20 mA (qty. 1 to 8 O₂ probes) input impedance – 275 ohms

Analog Outputs

4-20 mA (qty. 1 to 8 pass through for each probe, qty. 4 programmable averages)

Analog Output Resolution (for averages)

12 bit

Analog Output Resistive Load

< 500 ohms

Discrete Inputs

“IN CAL” (qty. 2 to 8 from individual probes)

On-state current

Minimum – 2.0 mA @ 10V dc
Maximum – 12.0 mA @ 30V dc

Relay Outputs

“LOSS OF PLC”

“AVERAGE WARN” if one or more probes drop out of an average
“AVERAGE FAILED” for each average when only one probe in the average remains valid

Relay contact ratings

| | |
|-------------|------|
| 120/220V ac | 2.5A |
| 125V dc | 1.0A |
| 24V dc | 2.0A |

Logic:

4 programmable averages from 2-8 probes

Individual probes removed from average if

- 1) Probe fails (4-20 mA to default condition of 3.5 mA or 21 mA)
- 2) Probe is in cal (SPS/IMPS contact, must share with control room)

Signal Security:

Each probe utilizes its own autonomous signal conditioning electronics, including its own power supply. Any failure in the OxyBalance System will not affect the individual probe 4-20 mA signals going to the control room from each probe.

Personnel Security:

Password protection configuration changes in programmable averages.

Color Graphic Display:

Size

6” diagonal

Type

Color Active Matrix, TFT LCD

Resolution

320 by 240 min.
Touch screen operator interface

Note

Panelvision Color Graphic Display may be separately mounted into a panel. 15 feet of interconnecting cable is included.

Ordering Information:

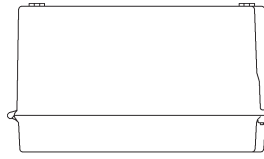
NEMA 4X Box

2 - 4 probes - 6A00203G01
5 - 8 probes - 6A00203G02

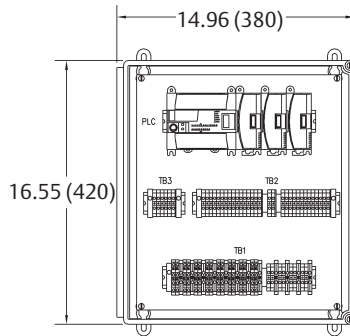
Plate Mount

2 - 4 probes - 6A00203G11
5 - 8 probes - 6A00203G12

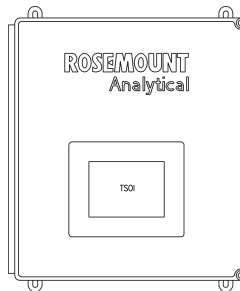
Dimensions



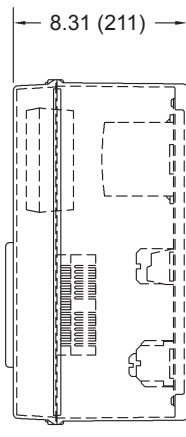
TOP



FRONT (DOOR REMOVED)



FRONT



RIGHT













All dimensions in inches
(mm in parentheses)



HIGH ACCURACY

measurement instruments

Our offering:

| | | | |
|---|--|--|------------------------------------|
|  | <p>Pressure Measurement</p> |  | <p>Level Measurement</p> |
|  | <p>Temperature Measurement</p> |  | <p>Flow Measurement</p> |
|  | <p>Marine Measurement & Analytical</p> |  | <p>Gas Analysis</p> |
|  | <p>Liquid Analysis</p> |  | <p>Flame and Gas Detection</p> |
|  | <p>Tank Gauging</p> |  | <p>Wireless Infrastructure</p> |
|  | <p>Acoustic & Discrete</p> |  | |

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Rosemount Analytical Oxymitter Oxygen Probes (ordered separately)

- 18" to 18' long
- Accuracy $\pm .75\%$ of reading, or $.05\%$)2
- Fully field-repairable
- Rugged construction
- Integral or remote electronics

Autocalibration Systems

- 1 to 4 probes per box
- Calibration recommended diagnostic
- "in cal" contact



Integral electronics



Remote electronics

<http://www.EmersonProcess.com>



<http://www.analyticexpert.com>



<http://twitter.com/RAIhome.com>

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Scan this QR code to
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product information web
page.



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