Ambient Air Calibration

The high accuracy and fast response of Models 3000PB and 3010PB is only surpassed by its ability to calibrate without the assistance of support gases. The Micro-fuel Cell produces an output that is linear from 0% to 100% O2 enabling the use of ambient air for calibration. These units can also accommodate the use of span or zero gas when necessary. The 3000PB and 3010PB offer stainless steel sample tubing and a nylon cell holder.

Advantages

- Linearity of analysis across three user-selectable ranges
- Remote access to all functions from computer
- Extended-life, maintenance free sensor
- Ambient air calibration

Standard Features

- NEMA 4 enclosure
- RFI hardened
- Security code protection
- Versatile analysis over a wide range of applications
- Microprocessor based electronics
- Programmable Auto Ranging
- Two fully-adjustable concentration alarms and a system failure alarm
- Air calibration range for convenient spanning at 20.9%
- Self diagnostics

Options

- Electrically operated cal/zero valves
- Vacuum service
- Stainless steel cell holder
- Isolated 4-20 mADC signal output and range ID
- Flame arrestors for Group C&D service (3010PB only)
- Flame arrestors for Group B service (3010PB only)
Applications

- Monitoring inert gas blanketing
- Air separation and liquefaction
- Chemical reaction monitoring
- Semiconductor manufacturing
- Petrochemical process control
- Quality assurance
- Gas analysis certification

Specifications

Area classification: (3000PB) General purpose bulkhead mount
(3010PB) Analysis unit: explosion proof enclosure

Control unit: General purpose bulkhead mount
Sensor: Class B-1, optional A3, A5, B3, C3
Ranges: Three user-definable ranges from 0-1% to 0-100% plus air calibration range of 0-25%

Sample system: Visible flow indicator; positive pressure service; vacuum service (optional), autocal/auto zero (optional internal electrically operated solenoid valves)

Alarms: • One system failure alarm contact to detect power, calibration, zero and sensor failure
• Two adjustable concentration threshold alarms with fully programmable set points

Diagnostics: Comprehensive self testing function
Accuracy: ±2% of full scale at constant temperature or ±5% of full scale over operating temperature ranges (once temperature equilibrium has been reached)

Sensitivity: 0.5% of FS
Displays: One LCD screen for setup, one five-digit LED for 02 value

Digital interface: RS-232C
Power: 85 - 240VAC, 50/60 Hz
Operating temp: 32° to 122°F (0-50°C)
Analog outputs: 0-1 VDC percent of range and range ID (optional) 4-20maDC isolated percent of range and isolated range ID

Response time: (B-1) 90% of full scale in 10 seconds
Dimensions: 11.81” W x 20.28” H x 8.9” D (3000PB and 3010PB Control Unit)
Enclosure: (3000PB and 3010TB Control Unit) sheet steel, NEMA 4/7
(3010PB Analysis Unit) - Explosion proof. U/L and CSA listed for Class I, Division 1, Groups B, C, and D service, NEMA 4/7 rated

Warranty

Instrument is warranted for 1 year against defects in material or workmanship

NOTE: Specifications and features will vary with application. The above are established and validated during design, but are not to be construed as test criteria for every product. All specifications and features are subject to change without notice.