



6231A is a 4 gas analyser bench

HC - Hydrocarbon, (n-Hexane), CO₂ Carbon Dioxide
CO Carbon Monoxide and O₂ Oxygen

The 6231A is designed to be used for Inspection, Diagnostics and Maintenance programs

The Andros Model 6231A provides fully compensated HC, CO, CO₂, and O₂ gas concentrations directly as digital data via an industry standard RS 232 serial interface.

It is based on the design architecture of the world's most field proven and reliable digital IR Gas Analyser bench with over 160,000 installations world-wide, pioneered by Andros.

The 6231A meets or exceeds all world-wide specifications for HC, CO, CO₂ and O₂ measurements; BAR 97, EPA 207A (USA), SIRA (England), PTB (Germany), LNE (France), MCTC (Italy), Dept of Metrology (Switzerland), IJKWEZEN (Netherlands), OIML Class 1 (International) as well as all I/M accuracy requirements.

The 6231A includes an enhanced oxygen channel that processes the output of an external O₂ sensor and has been designed specifically to support the PTB-AUII requirement for high resolution and high accuracy measurement of oxygen concentration and calculation of Lambda.

The infrared source, filters and detectors are thermally stabilised under microprocessor control, while a new stepper-motor driven chopper wheel and multiple IR detectors reduce the mechanical complexity whilst simultaneously increasing reliability. An elegantly simple yet full featured command set provides the host system with complete operator-free control of the analyser.

This new model now incorporates new surface mount technology (SMT) with a highly powered microprocessor for even greater performance.

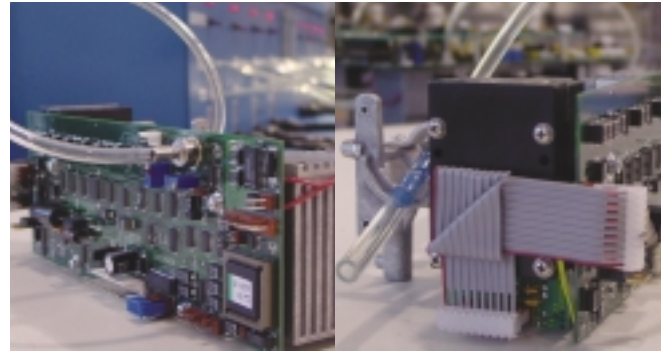
- By using electronic sophistication yet with mechanical simplicity the 6231A provides the most intelligent, flexible and reliable automotive analyser.
- The 6231A has a command set with extended commands that simplifies the management and calibration of the O₂ channel, including a host system determination when the O₂ sensor is at the end of it's life span so as to minimise down time when it is needed to be replaced.
- The 6231A can use an "Off the shelf" PC type power supplies, eliminating the need for expensive, custom made supplies.
- The Sample cell is field cleanable and replaceable, requiring no factory return, thus reducing maintenance costs.
- The 6231A also has a software tool available for speeding up development time.
- The unit can be used as a drop in replacement for all Andros 62XX products.
- The 6231A is designed to provide extremely high performance at a very competitive price.

The 6231A will incorporate SMT components where ever possible.

Also incorporated in this update is the change in power supply voltage requirements for use with ± 12 to 15, +5 VDC switching power supplies.

The 6231A uses the same gas data processing code in the operating software as was used in it's predecessor product 6231.

This earlier NDIR bench was certified to OIML Class 1.



SPECIFICATIONS

Measurement method

NDIR (Non-dispersive Infrared)

Measured gases

HC, Hydrocarbon (n-Hexane), CO, Carbon Monoxide;
CO₂, Carbon Dioxide; O₂, Oxygen.

Measurement range

HC: 0 to 30,000 ppm (n-Hexane)
CO: 0 to 10%
CO₂: 0 to 20%
O₂: 0 to 25%

Measurement resolution

HC: 1 ppm
CO: 0.01%
CO₂: 0.01%
O₂: 0.01%

Measurement accuracy

HC:
0 to 240 ppm (n-Hexane) ± 11 ppm abs.
241 to 400 ppm ± 12 ppm abs
401 to 2,000 ppm $\pm 3\%$ rel.
2,001 to 10,000 ppm $\pm 5\%$ rel.
10,001 to 30,000 ppm (Contact your Andros Rep)

CO:

0 to 1% $\pm 0.05\%$ abs.
1,01 to 2% $\pm 0.06\%$ abs.
2,01 to 3% $\pm 5\%$ rel.
3,01 to 5% $\pm 0.15\%$ abs.
5,01 to 7% $\pm 0.2\%$ abs.
7,01 to 10% $\pm 0.3\%$ abs.

CO₂:

0 to 16% $\pm 0.4\%$ abs.
16.01 to 20% $\pm 1\%$ abs.

O₂:

0.00 - 2.00% $\pm 0.1\%$ abs.
2.01 - 23% $\pm 5\%$ rel.

Response time

HC, CO, CO₂: 1 second
O₂: 40 seconds (21% to $< 0.1\%$)

Data Refresh Rate

0.8 seconds

Warm-up time

< 10 minutes

Operating temperature

5°C to 50°C (32°F to 122°F)

Operating humidity

to 95% RH (non-condensing)

Operating altitude

-305m to +2,133m (-1,000 ft. to +7,000 ft.)

Size

29.2 cm L, 14.2 cm W, 10.4 cm H (11.5 x 5.6 x 4.1")

Weight

1.0 Kg (2.2 lb)

Host communication I/O

RS 232C asynchronous - 9,600 bps
(Optional 1,200, 2,400, 4,800 bps)

Input power

All DC
5V, 0.75A;
+12 to 15 Volt, 0.75 A
-12 to 15 Volt, 0.5 A
HP 12 to 15 Volts, 3.00 A

Power consumption

45 Watts typical, (Max. Power 60 Watts)
Power requirements
+12 to 15 VDC (+15 VDC max), 3.0 amp
-12 VDC (-15 VDC max), 0.5 amp
+5 VDC, 0,75 ampere

Warranty

1 year parts and labor warranty