ANDROS 6552
OEM gas sensor for detection of Freon refrigerants and carbon dioxide.

The Andros® 6552 OEM gas module achieves high reliability through simplicity of design and implementation. Andros Non-Dispersive Infrared (NDIR) gas modules are inherently reliable because there are no moving parts in the optical path. Unlike alternative analyzers that require motors, gratings, chopperwheels, and/or other moving components with limited useful lives, Andros gas analyzers use a pulsed infrared source to achieve high accuracy with high reliability.

Available with two gas channels, the Andros 6552 can be configured for specific types of refrigeration plants or as a general purpose device that can be applied to any type or combination of refrigeration systems that may employ Freon™ refrigerants and carbon dioxide.

PRODUCT HIGHLIGHTS
- Measure up to five gases: three via NDIR and two via plug-in sensors
- RS232 or USB outputs
- Most types of refrigerants
- Field upgradable to measure additional gases

TYPICAL APPLICATIONS
- Refrigerant leak detection
OVERVIEW

The following standard features can provide a variety of additional functions to simplify system integration:

- Control of pneumatic components via RS232 or USB communications with the host.
- User-defined TTL outputs for interfacing to auxiliary devices or alarms.
- Two analog inputs for other process variables such as level or temperature.
- Two electrochemical sensor inputs for a total of five gases from a single instrument.

**Extensive Calibration for High Accuracy**

Every Andros 6552 NDIR bench is individually calibrated at four separate temperatures between 0 and 50°C. At each of the four temperatures, the gas channels are profiled with up to 20 separate gas concentrations.

The results of this extensive calibration process are stored within each system resulting in the most accurate analysis possible. This attention to detail provides a highly accurate and stable factory calibration of the NDIR analyzer.

Our factory calibration is so accurate and stable that many of our customers have chosen to never re-calibrate their Andros analyzers. The enhanced optics and electronics of the 6552 have virtually eliminated zero drift after the initial warm up period. The temperature and pressure compensation eliminates the major causes of span drift in many NDIR instruments.

**Optical Architecture**

The Andros 6552 Series offers greater design flexibility to OEMs due to its small overall size, our ability to customize subsystem designs to your specifications, and low power consumption. Our analyzer can be fitted into a wide variety of enclosures.

The Andros operating system (OS) software and communications protocol is designed to make system integration simple and fast.

Our command set has the flexibility to provide a variety of output configurations from NDIR gas readings only to external devices and components interface and control.

The OS monitors the critical operating parameters that affect performance and provides real-time status of the overall integrity and quality of the gas measurement. The OS is stored in FLASH memory and can be updated in the field using a PC and Andros software utilities.

DIMENSIONS

All dimensions in inches.
TECHNICAL DATA

Response Time

Response times are specified at a sample flow rate of 1 liter per minute through the 6552 sample cell.

Data Refresh Rate

1 second

Warm-up Time

30 minutes fully stable, 3 minutes for reduced accuracy unless zeroed prior to taking measurement

Warranty

1 year parts and labor warranty

Compliance

Designed to meet or exceed EN 14624, “performance of mobile leak detectors and of room controllers of halogenated refrigerants”

Host Communication

USB or RS232C asynchronous serial; 19,200 bps or 9600 bps (default is 19,200)

Electrical Specifications

Input Power

+12 Volts DC nominal (+9 to +16)

Power Consumption

1.8 Watts average @ 12 VDC

Physical Characteristics

Dimensions (L x W x H)

19.18 x 7.37 x 5.03 (7.55" x 2.90" x 1.98")

Weight

0.3 kg (0.8 lb)

Environmental Specifications

Operating Temperature Range

0 to 70°C (32° to 158°F), accuracy not specified > 50°C

Operating Humidity

To 95% RH (Non-condensing)

Operating Altitude

-300 to 3000 m (-1000 to 10,000 ft)


SPECIFICATIONS

Measurement Method | Gas | Resolution | Measurement Range | Accuracy | Precision | Response Time |
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<tbody>
<tr>
<td>NDIR (Non-Dispersive Infrared) on board</td>
<td>Most CFC, HFC and HCFC refrigerants</td>
<td>1 ppm</td>
<td>1 to 100 ppm, 101 to 1000 ppm, 1001 to 10,000 ppm</td>
<td>±4 ppm abs. or ±3% rel., ±5% rel., ±8% rel.</td>
<td>±4 ppm abs. or ±3% rel., ±3% rel.</td>
<td>T90 and T10 &lt; 3 Seconds</td>
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<td>CO2</td>
<td>0.01%</td>
<td>0.01% to 2.00%, 2.01% to 20.00%</td>
<td>±0.02% abs. or ±3% rel., ±5% rel.</td>
<td>±0.02% abs. or ±3% rel.</td>
<td>&lt; 3 Seconds</td>
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<td></td>
<td>O2</td>
<td>performance dependent upon electrochemical sensor model</td>
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<td></td>
<td>NOx</td>
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ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

AE’s power solutions enable customer innovation in complex semiconductor and industrial thin film plasma manufacturing processes, demanding high and low voltage applications, and temperature-critical thermal processes.

With deep applications know-how and responsive service and support across the globe, AE builds collaborative partnerships to meet rapid technological developments, propel growth for its customers and power the future of technology.

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