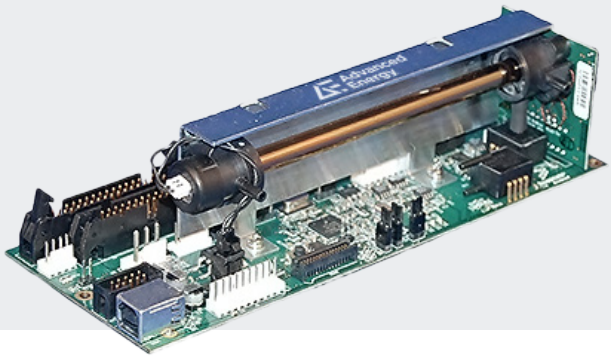
ANDROS 6552

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 ouputs
- Most types of refrigerants
- Field upgradable to measure additional gases

TYPICAL APPLICATIONS

- Refrigerant leak detection

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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 andstable 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

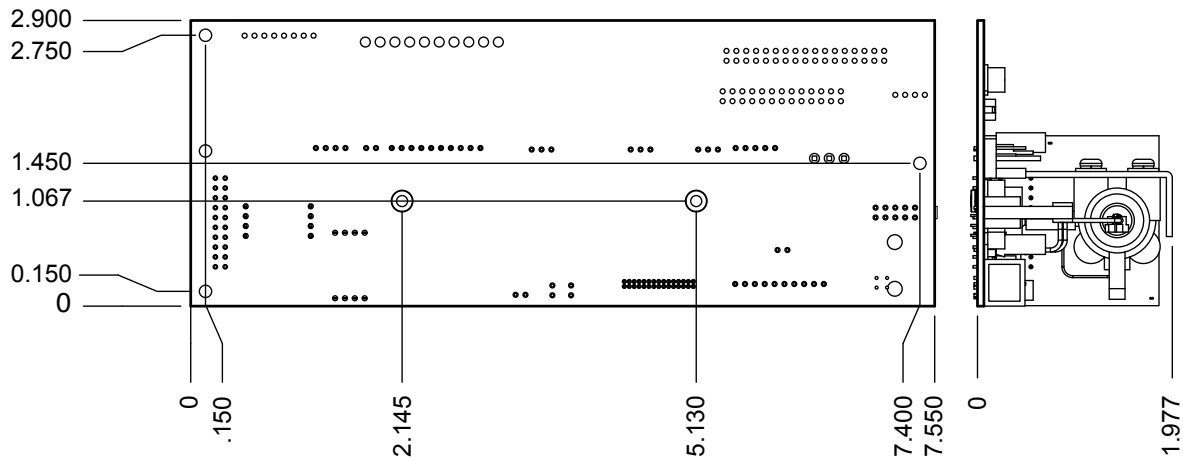
The Andros 6552 Series offers greater design flexibility to OEMs due to its small overall size, our ability to customize subsystem designs to your specifications, and low power consumption. Our analyzer can be fitted into a wide variety of enclosures.

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

Performance	
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)

Standard Freons available: R22, R134A, R404A, R407C, R410A, R507, R422A, R422D

SPECIFICATIONS

Measurement Method	Gas	Resolution	Measurement Range	Accuracy	Precision	Response Time
NDIR (Non-Dispersive Infrared) on board	Most CFC, HFC and HCFC refrigerants	1 ppm	1 to 100 ppm	±4 ppm abs. or ±3% rel.	±4 ppm abs. or ±3% rel.	T_{90} and T_{10} < 3 Seconds
			101 to 1000 ppm	±5% rel.		
			1001 to 10,000 ppm	±8% rel.	±3% rel.	
	CO_2	0.01%	0.01% to 2.00%	±0.02% abs. or ±3% rel.	±0.02% abs. or ±3% rel.	
			2.01% to 20.00%	±5% rel.		
Electrochemical sensors via connector	O_2	performance dependent upon electrochemical sensor model				
	NO_x					

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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