

# IR-208 Gas Analyzer



The IR-208 Gas Analyzer measures up to six different gases using multiple types of gas analysis integrated into one instrument. With a choice of more than 270 gases, the instrument is a highly versatile performer. Up to three gases can be measured under infrared and up to three additional gases can be measured utilizing electrochemical cell, paramagnetic, or other sensors. The wide range of available sensors not only provides versatility, but also allows a configuration that is appropriate in accuracy and price for your application.

## Product Features/Benefits

### High Accuracy

The IR-208 analyzer is calibrated to + or - 1% of full scale without drift in calibration for 30 days. Each instrument has a large LCD display for easy and accurate readouts. The IR-208's dependability, accuracy, and stability increase process control capability, resulting in improved product quality and reduced process cost.

### Long-Term Stability

With multi-layered compensation and high-quality infrared components, the IR-208 provides best-in-class stability.

### Quality Composition

Superior materials include gold and stainless steel sample cells and reflective coatings. High-quality sapphire windows and selected o-rings mark the fine details that have gone into the analyzer's construction. Optional materials for corrosive gases and specialized enclosures—including NEMA-certified enclosure for hazardous environments—are also available.

### Continuous Monitoring

The IR-208 has a long-life, solid-state infrared detector designed for high performance and uninterrupted maintenance-free operation.

### Easy Usability

The IR-208 features a large sunlight readable touchscreen graphic

LCD display as well as rotometer and flow control on the front panel for consistently accurate measurements. Simple menu choices guide the user through configuration and measurement modes.

### Selection of Outputs

Standard outputs include bi-directional digital RS232, a choice of 0-100mV, 0-1, 0-5, and 0-10VDC analog outputs, and an optional 4-20mA output. Measurement values can be expressed in parts per million (ppm) or percentage (%) based on customer requirement and gas concentrations in your sample stream.

### Infrared Industries Manufactured Components

The use of Infrared Industries manufactured optical elements, detectors, and filters guarantees affordability, fast turnaround, and consistently high quality.

### Customization

For unique applications, we configure the IR-208 with specialized sensors, pumps, filters, and multiple optical benches to meet your unique requirements. Our manufacturing facility is also our design center. Speak to us about modifications to meet your specific needs.

### InfraView Software

InfraView Software is a Windows-based program that allows remote control and display of up to eight different Infrared Industries gas analyzers or benches from one PC console. In addition to displaying current and logged results as raw data, the program offers full-featured graphical abilities.

### Infrared Measurement Principles

A multiple channel infrared detector array utilizing a single beam infrared optical system detects target gases using specially designed narrow-band optical filters. Comparing the infrared absorption of the reactive detectors to the nonreactive detector in the array provides the comparative for measuring the gas concentration in the sample stream.

# IR-208 GAS ANALYZER

## APPLICATIONS

- Combustion Analysis and Efficiency
- Burners and Boilers
- Commercial Ovens and Stove Emissions
- Controlled Atmospheres
- Greenhouse Gas Monitoring
- Landfill BTU Calculations and Process Management
- Well Logging (CH<sub>4</sub>, C<sub>2</sub>H<sub>6</sub>)
- Automotive Emissions Testing and Motorcycle Tuning
- Stack Gas Monitoring
- Safety Monitoring
- CO<sub>2</sub> and O<sub>2</sub> Based Ventilation
- Hydrocarbon Monitoring
- Regulatory Compliance
- Flue Gas Testing and Measurement
- Hazardous Gas Detection
- Process Monitoring
- LEL Monitoring — Fuel Tanks and Gas Lines
- Heat Treatment
- Fermentation

## SPECIFICATIONS

### Repeatability

+ or - 1% of full scale

### Zero Drift

+ or - 1% of full scale per 24 hours

### Span Drift

+ or - of full scale per 24 hours

### Linearity

+ or - 0.5% of full scale fitted to theoretical curve

### Noise Level

Less than 1% of full scale

### Temperature Range

32 to 122 degrees F (0 to 50 degrees C)

### Ambient Humidity

Up to 95% non-condensing relative humidity

### Power Requirements

100 - 240 VAC, 50/60 Hz, 20W max

### Warm-Up

5 minutes

### Outputs

Standard: 6.5" LCD

Bi-directional digital RS232

Choice of 0-100mV, 0-1, 0-5, and 0-10VDC analog outputs

Optional 4-20mA high current

Optional Bluetooth

Optional alarm relays

Optional USB (adapter required)

### Dimensions

7" H x 17" W x 12" D (18 x 43 x 30 cm)

### Weight

12 pounds (5.5 kg)

### Mounting

Rack mount

Hardware included (19", 4U)

### Warranty

12 months standard; extended warranty available

*Specifications are based on all ambient parameters being held near constant.*

## COMPANY OVERVIEW

Infrared Industries was established in 1958 and has been a leading developer and producer of state-of-the-art gas analyzers since 1969.

The company is widely recognized for servicing the motor vehicle, environmental, industrial, research and analytic, energy, utility, and petroleum industries with rugged, reliable, accurate, yet affordable analyzers.

Our years of experience and volume result in high-quality instrumentation at competitive prices.