Process Insights™
Premium Insights Into Process

REAL-TIME GAS ANALYZERS

PRODUCT DATASHEET

T-I Max AIR™

HIGH-PRECISION GREENHOUSE GAS MONITOR

Redefining environmental monitoring
with innovative greenhouse gas solutions

The T-I Max AIR features:

- Powerful Cavity Ring-Down Spectroscopy (CRDS) Technology
- Real-time monitoring and high precision detection of CO_2, CH_4, and H_2O to parts per billion (ppb)
- Specificity – immune to common interferences
- Automatic reporting of dry mole fraction
- Low cost of ownership and easy operation

The T-I Max AIR™ greenhouse gas (GHG) Cavity Ring-Down Spectroscopy (CRDS) analyzer for methane, carbon dioxide and water is specifically designed to comply with World Meteorological Organization (WMO) measurement requirements. The T-I Max AIR complies with stringent traceability and precision standards crucial for greenhouse gas inventory assessment. All these benefits makes it an ideal solution for monitoring atmospheric greenhouse gases.

It measures ambient levels of CH_4, CO_2 and H_2O with excellent reliability, and it can monitor emissions of greenhouse gases from various sources in fixed or mobile applications. The T-I Max AIR is specifically designed for GHG monitoring networks, with a high precision measurement and automatic reporting of dry mole fraction.

The T-I Max AIR integrates into a compact footprint that is both robust and cost-effective. Its resilience to common interferences solidifies its reputation as a consistently reliable choice for atmospheric measurements.

The T-I Max AIR eliminates the need for regular sensor replacement or maintenance. You'll find your system fast to install, exceptionally easy to use, extremely reliable, and effortless to maintain due to its built-in wavelength calibration. The robust design is free of moving parts and has a very low cost of ownership.

Today, our CRDS gas analyzers monitor thousands of critical points for industrial and scientific applications. They serve the world's national metrology institutes, where they function as transfer standards for the qualification of calibration and zero gases.

Specifications

Performance

Operating range:	See table below
Precision (1σ):	See table below
Accuracy*:	See table obelow
Environmental conditions:	10°C to 40°C, 30% to 80% RH (non-condensing)
Storage temperature:	–10°C to 50°C

Gas Handling System and Conditions

Wetted materials:	316L stainless steel and PFA
Gas connections:	1/4" PFA compression fittings inlet & outlet
Inlet pressure:	Atmospheric pressure
Outlet pressure:	Vacuum (<10 Torr)
Flow rate:	~ 0.5 slpm
Sample gases:	Ambient air
Gas temperature:	Up to 40°C

Dimensions and Weight

Standard sensor:	H × W × D: 8.75 x 19.0 x 25.0 in (222 x 483 x 635 mm) (19" rack-mountable)
Standard sensor weight:	55 lbs (25 kg)

Electrical and Interfaces

Power requirements:	90 − 240 VAC, 50/60 Hz
Power consumption:	300 Watts max.
User interfaces:	10.1" LCD touchscreen, 10/100 Base-T Ethernet, RS-232, RS-485, Modbus (Optional)
Data storage:	Internal or external flash drive
Certification:	CE Mark (pending)

Performance:

	Range	Accuracy*	Precision† (1σ) – 5 min.	Precision† (1σ) – 24 hrs.
CH_4	0 – 20 ppm	± 5%	1 ppb	2 ppb
CO_2	0 – 1000 ppm	± 5%	50 ppb	100 ppb
H_2O	0 – 7%	± 5%	30 ppm	100 ppm

* with factory calibration; for GHG monitoring networks the accuracy is dictated by the standard cylinders used for calibration.

† at typical ambient levels.

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GAIN REAL-TIME INSIGHT INTO YOUR PROCESS

Process Insights manufactures and delivers premium sensors, monitors, detectors, analyzers, instrumentation, and software that are mission-critical to keep your operations, personnel, and the environment safe – every day across the globe.

Get the most reliable, precision analytical technologies available on the market today. We will work to match your needs and budget, and provide the optimal, and most stable process analysis solution for your application.

CENTERS OF EXCELLENCE | PROVIDING PROVEN SOLUTIONS

Process Insights is committed to solving our customers' most complex analytical, process, and measurement challenges everyday.

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