



# T-I Max AIR CH<sub>4</sub> and CO<sub>2</sub> Next-Gen Monitors for Greenhouse Gases

GASES & CHEMICALS

CEMS

ENERGY

SEMI & HB LED

ATMOSPHERIC

LAB & LIFE SCIENCE

**A compact and user-friendly solution for monitoring ambient levels and emissions of methane and carbon dioxide, the next-generation T-I Max AIR offers:**

- Accuracy traceable to the world's major national reference labs
- Specificity—no moisture or other interference
- High precision at ambient or even higher levels
- Freedom from the need for span calibrations
- No periodic sensor replacement/maintenance
- Wide dynamic range and no drift
- Compact and rugged design

## **Combat Global Warming at the Source**

The T-I Max AIR greenhouse gas (GHG) analyzers for methane and carbon dioxide are designed for versatile use. They can measure ambient levels of CH<sub>4</sub> and CO<sub>2</sub> with high precision over a wide range of temperatures with excellent reliability, and they can monitor emissions of greenhouse gases from various sources such as landfills, gas and oil exploration sites, refineries, and agricultural facilities. The T-I Max AIR helps users to easily and accurately assess their GHG emissions and implement measures to reduce global warming.

Using Tiger Optics' T-I Max AIR analyzers, you can measure ambient levels of methane and carbon dioxide with parts-per-billion accuracy, drift-free stability, and fast response. You'll find our systems fast to install, exceptionally easy to use, extremely reliable, and effortless to maintain due to their built-in calibration verification. The robust design—free of moving parts—results in an analyzer that has a high mean time between failure (MTBF) and a very low cost of ownership (CoO).

**Tiger**optics  
a Process Insights Brand

# T-I Max AIR CH<sub>4</sub> and CO<sub>2</sub> Next-Gen Monitors for Greenhouse Gases



| Performance                   |  |
|-------------------------------|--|
| Operating range               | See table below                                |
| Detection limit (LDL, 3σ/24h) | See table below                                |
| Precision (1σ, greater of)    | ± 0.75% or 1/3 of LDL                          |
| Accuracy (greater of)         | ± 4% or LDL                                    |
| Speed of response             | See table below                                |
| Environmental conditions      | 10°C to 40°C<br>30% to 80% RH (non-condensing) |
| Storage temperature           | -10°C to 50°C                                  |

| Gas Handling System and Conditions* |   |
|-------------------------------------|---|
| Wetted materials                    | 316L stainless steel<br>10 Ra surface finish  |
| Gas connections                     | 1/4" male VCR inlet and outlet                |
| Leak tested to                      | 1 x 10 <sup>-9</sup> mbar l / sec             |
| Inlet pressure                      | 0 – 15 psig (1 – 2 bara)                      |
| Outlet pressure                     | Vacuum (<10 Torr)                             |
| Flow rate                           | ~1 slpm                                       |
| Sample gases                        | Ambient air, dry air (CDA) and N <sub>2</sub> |
| Gas temperature                     | Up to 60°C                                    |

| Dimensions                              | H x W x D [in (mm)]                  |
|---|--------------------------------------|
| Standard sensor                         | 8.73 x 8.57 x 23.6 (222 x 218 x 599) |
| Sensor rack<br>(fits up to two sensors) | 8.73 x 19.0 x 23.6 (222 x 483 x 599) |

| Weight          |                |
|-----------------|----------------|
| Standard sensor | 33 lbs (15 kg) |

| Electrical and Interfaces |  |
|---------------------------|--|
| Alarm indicators          | 2 user programmable<br>1 system fault<br>Form C relays   |
| Power requirements        | 90 – 240 VAC, 50/60 Hz   |
| Power consumption         | 40 Watts max.  |
| Signal output             | Isolated 4–20 mA   |
| User interfaces           | 5.7" LCD touchscreen<br>10/100 Base-T Ethernet<br>USB, RS-232, RS-485<br>Modbus TCP (optional) |
| Data storage              | Internal or external flash drive   |
| Certification             | CE Mark  |

| Performance in dry air or N <sub>2</sub> : | Range                    | LDL (3σ) | Precision (1σ) @ zero | Speed of Response |
|--|--------------------------|----------|-----------------------|-------------------|
| T-I Max AIR CH <sub>4</sub> (low range)    | 0 – 25 ppm               | 1.5 ppb  | 0.5 ppb               | 3 min to 95%      |
| T-I Max AIR CH <sub>4</sub> (high range)   | 0 – 100 ppm <sup>†</sup> | 7.5 ppb  | 2.5 ppb               | 3 min to 95%      |
| T-I Max AIR CO <sub>2</sub>                | 0 – 3000 ppm             | 150 ppb  | 50 ppb                | 3 min to 95%      |

| Performance in ambient air:              | Range                    | Precision (1σ) at typical ambient levels | Accuracy at typical ambient levels |
|--|--------------------------|--|------------------------------------|
| T-I Max AIR CH <sub>4</sub> (low range)  | 0 – 25 ppm               | <15 ppb over 24 hours                    | <80 ppb                            |
| T-I Max AIR CH <sub>4</sub> (high range) | 0 – 100 ppm <sup>†</sup> | <15 ppb over 24 hours                    | <80 ppb                            |
| T-I Max AIR CO <sub>2</sub>              | 0 – 1500 ppm             | <3 ppm over 24 hours                     | <16 ppm                            |

\*Vacuum source with >2 slpm @ 10 Torr required  
<sup>†</sup>Upper range available as high as 1000 ppm on request.  
 U.S. Patent # 7,277,177

**Tiger Optics, LLC**  
 275 Gibraltar Road, Horsham, PA 19044  
 Phone: +1 (215) 656 4000 · Fax: +1 (215) 343 7168  
 sales@tigeroptics.com · www.tigeroptics.com



**Tigeroptics**  
 a Process Insights Brand

4/2022