

TR2000 – Electrochemical CO Transmitter



Low Cost – Long Life – Low Profile

The TR-2000 delivers all the advantages of electrochemical sensing in a durable, long life (5 year) package that is priced to compete against less accurate MOS/Solid State sensors. The loop powered sensor delivers a linear 4-20 ma output that is easily integrated into any building control, ventilation or alarm application. The low profile design can be attached to any single gang electrical box and features a low cost replaceable sensor element. Also available with LonWorks and BACnet outputs.

Why The TR-2000?

- ✓ Electrochemical performance at a MOS (solid state) price. One-half to two-thirds the cost of comparable electrochemical sensors.
- ✓ Two-wire, loop powered for easy integration with EMS & DDC Systems.
- ✓ Five-year life vs 18 months for most other electrochemical sensors.
- ✓ High accuracy sensor, +/- 5% of measurement.
- ✓ Linear output over complete 0-200 ppm range. Custom ranges available.
- ✓ Low profile, attractive enclosure that can be mounted in any single gang J box.
- ✓ Low cost replacements sensor elements minimizes long term operating costs.

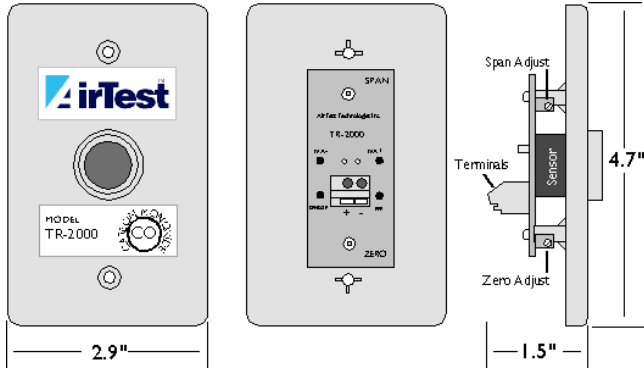
AirTest Electrochemical Vs MOS/Solid State

- ✓ Higher accuracy in the 0-50 ppm range means more energy savings for ventilation control in vehicle operation and parking areas.
- ✓ No temperature or humidity interference eliminates seasonal drift of sensors.
- ✓ Much less sensitive to other gases and less likely to be poisoned.
- ✓ Significantly less long-term drift means less maintenance.
- ✓ Consistent linear output between sensors means specialized operational curves and control points are not necessary.

CO And Parking Garages

Most local codes require a very high rate of ventilation (1.5 to 2 cfm.sq ft) in enclosed parking and areas involving vehicle repair and operation. This must be provided during all hours of use. A Carbon Monoxide sensor can reduce fan energy costs by acting as an occupancy sensor for automobiles. Most codes allow fans to be intermittently operated as long as levels do not exceed 30 or 50 ppm CO (check your local code).

TR- 2000 Dimensions



The TR2000 can be installed on a standard single-gang electrical box. A 2" deep PCV box is also provided with the sensor.

Specifications

General

Sensing Method: Electrochemical
Approval: CSA/NRTL (UL Equivalent), UL2075 (Sensor)
Sensor Rated Life: 5 years
Temp Operating Conditions: -4 to 122° F (-20 to 50°C),
Humidity Operating Conditions: 0 to 90% RH
Storage Conditions: -40 to 158°F (-40 to 70°C)

Performance

CO Measurement Range: 0-200 ppm (factory adjustable to 500 ppm)
Repeatability: +/- 5% of measured value
Linearity: +/- 5% of measured value
Recommended Calibration: 2.5 years
Response Time: T₉₀ = <1 minutes (diffusion)
Warm Up Time: < 2 minutes

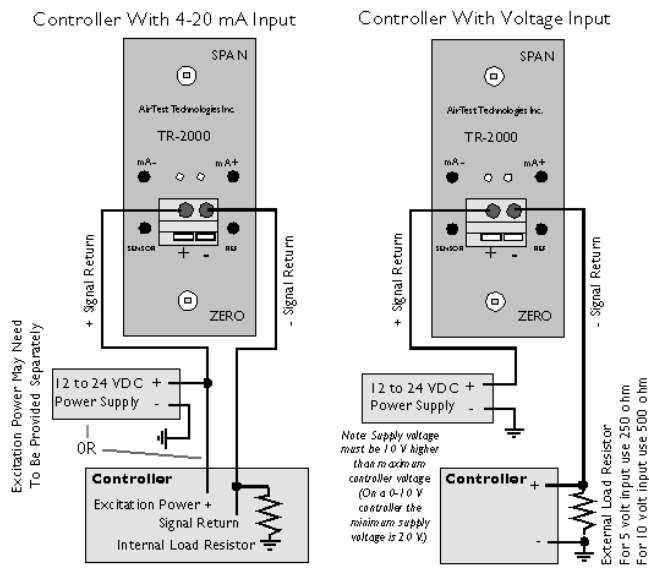
Power

Input: 12-30 VDC,
Power Consumption: 20 mA

Outputs

Adjustment: Span & Zero
Output Signal: 4-20 mA (LonWorks & BACnet also available)
Terminal Wire Size: 16 – 22 AGW

TR- 2000 Wiring



Other Gas Sensors For Vehicle Applications

TR-3210
 Electro-chemical
 NO₂
 (Diesel)



TR-99292
 Infrared
 CO₂
 (Combustion Odors)



TR-5200
 Catalytic Bead
 Combustibles
 (Propane, Natural Gas)



Optional Fan & Alarm Controllers

CT-1000 Single Channel Controller

- High & Low Relays (5A)
- 2 Adjustable Set Points
- User Adjustable Time Delay
- LED's for Power, Low & High Alarm
- Cost Effective



CT-2100 Dual Channel Controller

- Inputs For 2 Gas Transmitters
- 2 Sets of High & Low Relays (10A)
- Fault & Alarm Relay
- LED's For Power, Fault & 2 Alarms
- Adjustable Set Points
- User Adjustable Time Delay



Multi Point Controllers Available From AirTest

- **CN9000** – On/Off Controller (3-200 Transmitters)
- **CN7232** – PLC controller with display, VFD or on/off control, single zone (up to 32 Transmitters)
- **CN8500** – Internet connected controller, programmed to user needs, multiple zones, web page interface, email based alarms and maintenance reminders. Works with AirTest LonWorks or BACnet transmitters.

AirTest™ Technologies Inc.
 specializes in the application of cost effective, state-of-the-art gas monitoring technology to ensure the comfort, security, health and energy efficiency of buildings.



Specifications Subject to Change Without Notice

10/30/14