

**no false alarms**

Gas Detection Systems

**New & smarter**

**VOC PID**

**Photo-Ionization Gas**

**3 or 4-Wire *smarter* Transmitter**

**Features: VOC Gas Detector**

- **no false alarms** - does not react with changes in temperature/humidity/pressure
- **Does Not Drift** - no autozeroing or adjustments required
- **Rapid Warm-up** - ready to calibrate minutes after power applied - does not require bias voltage to stay ready - no need to wait hours for stabilization
- **Not Affected by Humidity** - 5% to 95% relative humidity - continuous  
0% to 99% relative humidity - intermittent
- **Not Affected by Temperature** - -40° C to +55° C is not temperature compensated
- **Self-Calibration** - microcontroller electronics automatically adjusts span calibration over time based on typical life curve for sensor - sensors not routinely calibrated stay much closer to proper calibration - reduces calibration frequency - actual field calibration data re-adjusts life curve
- **Sensor Life Remaining** - determined based on sensor life curve, calibration history and electrical characteristics of sensor - shown on LCD display
- **Non-Intrusive One-Man Calibration** - use magnet to actuate zero and span calibration switches behind enclosure glass window - no manual adjustments required - no need to open enclosure
- **Off-site Sensor Calibration** - calibrate sensor in lab and install on any same type *smarter* Transmitter with no further calibration required - calibration data automatically uploads to transmitter to ensure precise calibration
- **Alarm Settings** - user adjustable low, mid and high alarm settings
- **Alarm Relays** - (option) low, mid and high relays, user selectable non-latching/latching, non-energized/energized - fault relay, non-latching, normally energized - all relays rated 20 amps
- **Peak Value** - 15 min. TWA/No. days since last gas calibrated
- **Loop Test** - transmitter outputs 4/8/12/16/20mA signal to verify readings and alarms at controller electronics
- **Diagnostics** - continuous analysis of transmitter system to report any fault conditions, e.g. low sensor life, low gas sensitivity, sensor disconnected, etc.
- **Low Maintenance** - long life 10.6 eV Ultraviolet lamp. Periodic calibration during normal service life. Lamp is field replaceable/servicable.
- **Easy Field Calibration** - direct calibration or cross reference to Isobutylene
- **Fast Response** - 90% of reading in less than 30 seconds
- **Fast Recovery** - 90% recovery in less than 30 seconds
- **Not Saturated** by occasional high concentrations of gas in the work environment
- **Stays Awake** - does not go to sleep when gas is absent for long periods of time

**Self-Calibration = Cost Reduction**



Model TA-2100 Gas Detector

2 line x 12 Character Back-lit LCD Display

**Modbus Option**—RS-485 Modbus RTU, Ethernet Modbus TCP/IP. Link up to 247 *smarter* Transmitters on a twisted pair cable and collect data continuously at host computer, PLC, PC, data-logger, etc.

## TRANSMITTER SPECIFICATIONS

- Operating Voltage:** 12 or 15-30VDC
- Transmitter Outputs:** 4-20 mA, RS-485 Modbus RTU (option)
- Sampling Method:** Diffusion (Sample-Draw Available)
- Calibration Method:** Non-Intrusive, magnetic switches
- Enclosure:** CSA/FM/UL/CENELEC/KEMA Class I, Div. I, Groups B/C/D Class II, Groups E/F/G Class III, Type 4X
- Weight:** 3.5lbs/1.589kg.
- Power Required:** 1.82W at 24VDC/3.38W Max. w/Relays

**Note:** Specifications subject to change without notice

## Sensor: VOC Volatile Organic Compounds

- Detection Principle:** Photo-Ionization, PID, 10.6 eV
- Detection Method:** Diffusion (Sample-Draw Available, Nema 4X)
- Detection Range:** 0-20 / 0-200 / 0-2000 ppm
- Output Signal:** Linear
- Resolution:** 0.1 (20) / 1 (200) / 10 (2000) ppm
- Response Time:** <30 sec. to 90% of final reading
- Recovery Time:** <30 sec. to 90% recovery
- Humidity Range:** 5% - 95% RH, non-condensing - continuous  
0% - 99% RH, non-condensing - intermittent
- Temperature Range:** -40°C to +55°C  
-40°F to +131°F
- Pressure Range:** Atmospheric  $\pm$  15%
- Zero Drift:** <1% of full scale
- Position Sensitivity:** None
- Storage Life:** >6 months in container



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