

# MIL - R A M T E C H N O L O G Y

**no false alarms**

Gas Detection Systems

**New &  
smarter**

**NO  
Nitric Oxide**

**FEATURES: 3 or 4-Wire**

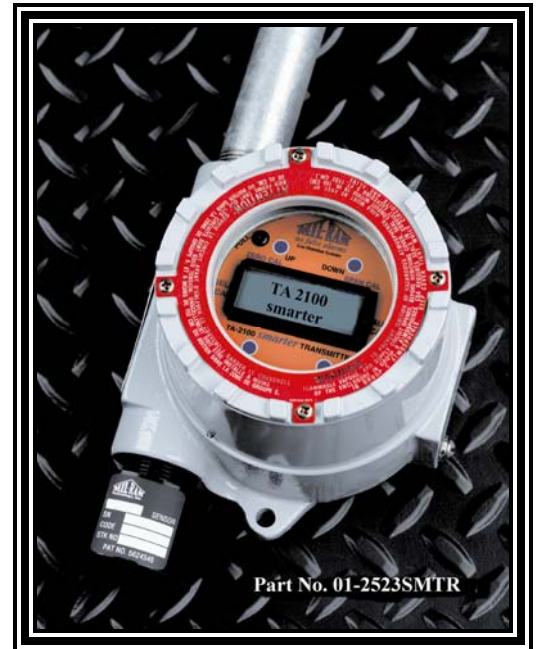
**3 or 4-Wire *smarter* Transmitter**

- **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 3 minutes after power applied - does not require bias voltage to stay ready - no need to wait hours for stabilization
- **Not Affected by Humidity** - 15% to 90% relative humidity - continuous  
0% to 99% relative humidity - intermittent
- **Not Affected by Temperature** - -25° C to +50° 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.
- **Maintenance Free** - no replenishment of electrolyte or water during 2+ years of normal life
- **Long Life** - over 2 years continuous operation
- **Fast Response** - 90% of reading in less than 30 seconds
- **Fast Recovery** - 90% recovery in less than 45 seconds
- **Not Saturated** by occasional high concentrations of gas in the work environment (continuous gas exposure reduces service life)
- **Stays Awake** - does not go to sleep when gas is absent for long periods of time
- **Chemically Selective**

## SENSORS:

|                              |   |
|------------------------------|---|
| <b>Detection Principle:</b>  | Electrochemical   |
| <b>Detection Method:</b>     | Diffusion (Sample-Draw Available, Nema 4X)  |
| <b>Detection Range:</b>      | 0-100 ppm   |
| <b>Output Signal:</b>        | Linear  |
| <b>Resolution:</b>           | 1 ppm   |
| <b>Response Time:</b>        | <30 sec. to 90% of final reading  |
| <b>Recovery Time:</b>        | <45 sec. to 90% recovery  |
| <b>Humidity Range:</b>       | 15% - 90% RH, non-condensing - continuous<br>0% - 99% RH, non-condensing - intermittent |
| <b>Temperature Range:</b>    | -25°C to +50°C<br>-13°F to +122°F   |
| <b>Pressure Range:</b>       | Atmospheric $\pm$ 15%   |
| <b>Position Sensitivity:</b> | None  |
| <b>Storage Life:</b>         | 6 months in container   |
| <b>Life Expectancy:</b>      | >2 years in clean air   |

**Self-Calibration = Cost Reduction**



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. P/N: 01-2523SMTRMB

## TRANSMITTER SPECIFICATIONS:

|                             |   |
|-----------------------------|---|
| <b>Operating Voltage:</b>   | 12 or 15-30VDC  |
| <b>Transmitter Outputs:</b> | 4-20 mA, RS-485 Modbus RTU (option)   |
| <b>Sampling Method:</b>     | Diffusion (Sample-Draw Available)   |
| <b>Calibration Method:</b>  | Non-Intrusive, magnetic switches  |
| <b>Enclosure:</b>           | CSA/FM/UL/CENELEC/KEMA<br>Class I, Div. I, Groups B/C/D<br>Class II, Groups E/F/G<br>Class III, Type 4X |
| <b>Weight:</b>              | 3.5lbs/1.589kg.   |
| <b>Part Number:</b>         | 01-2523SMTR   |
| <b>Power Required:</b>      | 1.08W at 24VDC/2.60W Max. w/Relays  |

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

**MIL-RAM**  
Patented Technology  
**no false alarms**  
Gas Detection Systems  
ISO 9001:2000 Certified

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