

# MIL-RAM TECHNOLOGY

**no false alarms**

Gas Detection Systems

**New &  
smarter**

**L.E.L.**

**Combustible Gas**

**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** - 5% to 95% relative humidity - continuous  
0% to 99% relative humidity - intermittent
- **Not Affected by Temperature** - -40° C to +75° 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.
- **Long Life** - over 3 years continuous operation
- **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
- **Chemically Selective**

**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: 01-2520SMTRMB

## SENSORS:

<b>Detection Principle:</b>	Catalytic bead
<b>Detection Method:</b>	Diffusion (Sample-Draw Available, Nema 4X)
<b>Detection Range:</b>	0-100% L.E.L.
<b>Output Signal:</b>	Linear
<b>Resolution:</b>	1% L.E.L.
<b>Response Time:</b>	<30 sec. to 90% of final reading
<b>Recovery Time:</b>	<30 sec. to 90% recovery
<b>Humidity Range:</b>	5% - 95% RH, non-condensing - continuous 0% - 99% RH, non-condensing - intermittent
<b>Temperature Range:</b>	-40°C to +75°C -40°F to +167°F
<b>Pressure Range:</b>	Atmospheric ±15%
<b>Zero Drift:</b>	<1% of full scale
<b>Position Sensitivity:</b>	None
<b>Storage Life:</b>	>18 months in container
<b>Life Expectancy:</b>	>3 years in clean air



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

## 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 Class I, Div. I, Groups B/C/D Class II, Groups E/F/G Class III, Type 4X
<b>Weight:</b>	3.5lbs/1.589kg.
<b>Part Number:</b>	01-2520SMTR
<b>Power Required:</b>	1.82W at 24VDC/3.38W Max. w/Relays

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

**Toll Free: 888-4MILRAM • 1-888-464-5726**

4135 Business Center Drive • Fremont, CA 94538

Tel: 510-656-2001 • Fax: 510-656-2004

sls@mil-ram.com • www.mil-ram.com

www.wirelessmil-ram.com