

CARBON MONOXIDE AND NITROGEN DIOXIDE STAND-ALONE DUAL GAS MONITOR

MODEL TSM

TYPICAL INSTALLATIONS:

Parking Garages
Bus Garages
Fire Stations
Warehouse
Car Dealers

Vehicle Maintenance & Storage
***Highway Departments**
***Utilities**
***Public Works**

Ice Arenas
Post Offices
Police Stations
Tunnels

GENERAL DESCRIPTION:

TOXALERT'S Model TSM Stand-Alone Monitors are compact, electro-chemical, cost effective gas monitors designed for fixed installation, continuous monitoring of commercial & industrial facilities. The TSM Series is a carbon monoxide (CO) sensor, nitrogen dioxide (NO₂) sensor or a combination of both CO and NO₂ sensors in one monitor. For design flexibility, there is an option to locate one of the sensors remote from the monitor. Each Stand-Alone Monitor is microprocessor based to ensure trouble free, long-term stability and has three (3) field adjustable stages of operation. Relay outputs for each stage are designed for fail-safe operation and fail to energize remote equipment such as ventilation fans and visual alarms.

The Model TSM is a self-contained monitor in an architecturally appealing ABS housing with indicators for power on, microprocessor running (malfunction), warning or fan stage energized, alarm stage and high alarm stage. Options available are an LCD display of gas concentration and audible alarm with silence. The audible alarm silence push-button temporarily silences the audible horn until the next alarm occurrence.



TSM with Optional LCD

STANDARD FEATURES:

- Single or dual gas monitor
- Fully electronic for long life
- Field selectable 24 volt AC or DC power
- User adjustable warning, alarm and high alarm
- Indication of sensor end of life
- Relay outputs for remote control and alarming
- Operating range meets OSHA std. 1910.1000
- Indicators for power on, warning, alarm and high alarm

OPTIONS:

- LCD display of gas concentration in PPM
- Audible Alarm with silence, 70db
- One or two sensors remote

SPECIFICATIONS:

- Gas Detected: CO, NO₂
- Sensor Type: Electro-Chemical
- Range: CO 0-200 PPM, NO₂ 0-10PPM
- Input Power: 24 VAC or 24 VDC +/-10%
- Relay Contacts: 24VDC, .5A resistive

Environment

- Operation Range-
 - Temperature: -4°F to 122°F (-20°C to 50°C)
 - Relative Humidity: 0-95% non-condensing

Enclosure:

Dimensions: 7.2”H x 4.9”W x 2.2” D
 Type: Surface Mount
 Color: Black
 Material: ABS

Response Time:

CO Sensor 40 Seconds to reach 90% of indication
 NO₂ Sensor 60 seconds to reach 90% of indication

Indicators:

Power On	Alarm Stage
Malfunction	Warning Stage
High Alarm Stage	

Storage Range

- Temperature: -40°F to 122°F (-40°C to 50°C)
- Relative Humidity: 0-95% non-condensing
- Resolution:
 - CO Sensor = 1 PPM; NO₂ sensor = 0.02 PPM
- Typical Life:
 - CO Sensor 7 years in normal service
 - NO₂ Sensor 3 years in normal service

FIELD WIRING

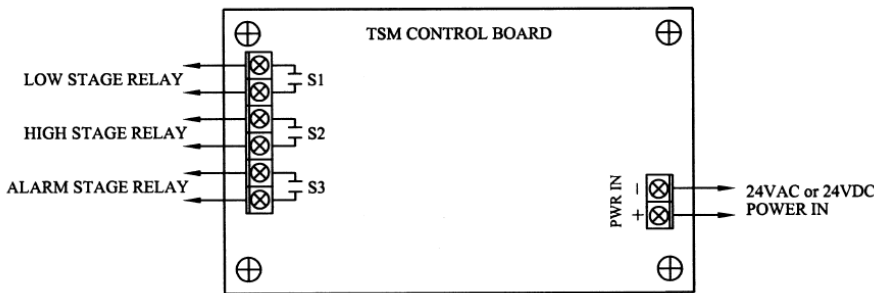
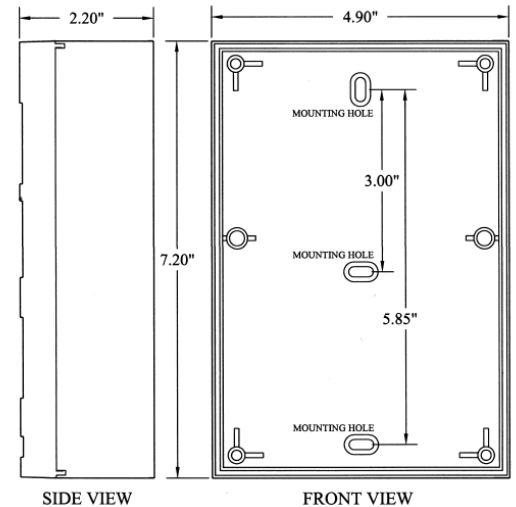


FIGURE 1

FIGURE 2

DIMENSIONS WITH MOUNTING HOLES



ORDERING INFORMATION:

Model TSM	First Sensor (A) -XXX	Second Sensor (B) -XXX	LCD Display -Z
	COL = CO Sensor Local COR = CO Sensor Remote NO ₂ L = NO ₂ Sensor Local NO ₂ R = NO ₂ Sensor Remote	NO ₂ L = NO ₂ Sensor Local NO ₂ R = NO ₂ Sensor Remote COL = CO Sensor Local Ø = No 2nd Sensor (B)	Ø = None Standard D = Included