

The Solution when Portable Gas Detection is Required

The **MST Satellite Portable Gas Detector** is a versatile instrument designed to detect and measure a wide range of hazardous gases. It is ideal for emergency response use as well as monitoring in laboratories, cylinder receiving areas and other locations where portable or temporary gas detection is needed. This instrument is designed for detection of toxic and corrosive gases and comprises two essential components, the sampling module with integral pump for sample transportation and the gas detection module for monitoring directly with a sensor extension cable. Diagnostics include monitoring of the sensor cell as well as flow rate. For optimum versatility and flexibility, the **MST Satellite Portable Gas Detector** uses “plug and play” sensor cells which are easily changeable in the field.

The **MST Satellite Portable Gas Detector** features user-adjustable dual-level concentration alarms, LCD concentration display and both audible and visual alarm indicators. The instrument also incorporates three alarm relays that can be used to automatically activate external devices in the event a gas concentration or instrument alarm condition is detected. In addition to the alarm relays the instrument can be purchased either with a LonWorks® or 4-20 mA interface.

Continuous monitoring, fast response, ability to silence the audible alarm, battery check and the use of MST Technology’s intelligent electrochemical sensor cells are further features and benefits.



Quick Facts

Applications:

- Emergency response
- Localizing gas leaks
- Equipment maintenance
- Gas bottle changes
- Laboratories

Advantages:

- Dual-mode detection either extractive or in-situ
- Dual-level concentration alarms
- User adjustable alarm levels and alarm relay actions
- Audible and visual alarm indicators
- “Plug and Play” interchangeable intelligent sensor cell
- LonWorks® or 4-20 mA interface
- Sensor diagnostics

Configurations:

- | | |
|-----------------------|-----------|
| ■ FTT/R (115 VAC) | 9751-0000 |
| ■ 4-20mA/R (115 VAC) | 9751-0010 |
| ■ FTT/R (230 VAC) | 9751-1000 |
| ■ 4-20 mA/R (230 VAC) | 9751-1010 |

Technical Overview

Performance specifications

Alarm settings	Dual-level
Battery life	8 h
Operation temperature	-20 °C to +40 °C (-4 °F to +104 °F)
Relative humidity	10 to 95 % r.h. (non-condensing)
Pressure	700 hPa to 1300 hPa
Sample tubing	OD 1/4 in ID 3/16 in
Response time	< 30 sec (10 m tubing length)
Operational cell life	> 1 year (under normal conditions)
Sensor service interval	6 months
Graphic display	122 x 32 dots with back light
LED indication	Alarm, fault, power status
Acoustical alarm	Continuous / alternating buzzer signal

Facilities requirements

Electrical supply	12 V rechargeable lead acid battery
Network interface (PN 9751-0000 or PN 9751-1000)	
Network	Standard LonTalk® Protocol
Data transmission	78 kBit per second
Wiring topologies	Free, (e.g. bus, star, loop or mixed)
Wiring	Shielded (tinned copper braid) 4 wire cable (2 x 2 x 1.0 mm / 17 AWG)
Alarm relay outputs	
Contacts	3 x SPST
Max. ratings	250 VAC / 8 A
Analog interface (PN 9751-0010 or PN 9751-1010)	
Interface	4-20 mA
Fault range	0 ... 2 mA
Warning mode	2.8 ... 4 mA @ 0.1 Hz
Maintenance mode	2.4 ... 4 mA @ 1 Hz
Wiring	Shielded (tinned copper braid) 3 wire cable (3 x 1.0 mm / 17 AWG)
Overall dimensions	89 x 228 x 165 mm
H x W x D	3.5 x 9.0 x 6.5 in
Weight	1.8 kg (4 lbs)

Detectable Gases

Ammonia (NH ₃)	Hydrogen Fluoride (HF)
Arsine (AsH ₃)	Hydrogen Selenide (H ₂ Se)
Boron Trichloride (BCl ₃)	Hydrogen Sulfide (H ₂ S)
Bromine (Br ₂)	Nitrogen Oxide (NO)
Carbon Monoxide (CO)	Nitrogen Dioxide (NO ₂)
Chlorine (Cl ₂)	Ozone (O ₃)
Chlorine Dioxide (ClO ₂)	Oxygen Deficiency (O ₂)
Chlorine Trifluoride (ClF ₃)	Phosphorous Oxychloride (POCl ₃)
Diborane (B ₂ H ₆)	Phosgene (COCl ₂)
Dichlorosilane (SiH ₂ Cl ₂)	Phosphine (PH ₃)
Disilane (Si ₂ H ₆)	Silicon Tetrachloride (SiCl ₄)
Fluorine (F ₂)	Silicon Tetrafluoride (SiF ₄)
Germane (GeH ₄)	Silane (SiH ₄)
Hexamethyldisilazane (HMDS)	Sulfur Dioxide (SO ₂)
Hydrazine (N ₂ H ₄)	Tetraethylorthosilicate (TEOS)
Hydrogen (H ₂)	Trichlorosilane (SiHCl ₃)
Hydrogen Bromide (HBr)	Trimethylborate (TMB)
Hydrogen Chloride (HCl)	Trimethylphosphite (TMP)
Hydrogen Cyanide (HCN)	Tungsten Hexafluoride (WF ₆)

Outputs and communications

Life Safety Network – LonWorks®
Facility Computer – MST DVS Software
MST Relay Output Controller
MST Local Info Display
FMS 8700 and FMS 8710 MST controllers
PLC/SCADA Communication

Options and accessories

Carrying Case P/N 9751-0200



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