MST Satellite XT

Honeywell

Point-of-Use Gas Detection in a Complete Life Safety Solution

The MST Satellite XT is the simple solution for all “Point-of-Use” gas detection needs. Based upon the markets smallest and most reliable electrochemical cell technology, the MST Satellite XT offers the flexibility, simplicity and application ease. The MST Satellite XT can be purchased in either an analog or digital configuration allowing it to interface with new or existing facility control technologies.

The digital MST Satellite XT is built on LonWorks® technology. Life Safety Systems built on a LonWorks® network platform allow users to leverage the cost efficiencies of distributed controls, while maintaining the integrity and reliability necessary for code compliant safety applications.

The MST Satellite XT is an intelligent gas detection transmitter which utilizes a unique electrochemical sensor to detect toxic, corrosive, and combustible gas. The MST Satellite XT is a “Point-of-Use” monitor normally located at or near a potential source of gas release. Field accessories allow sampling options for various environments including in–situ duct detection and extractive designs for harsh or remote areas. Typical installations for gas detection sampling include gas cabinet exhaust ducting, valve manifold boxes, equipment enclosures, and ambient breathing zones.

Each digital MST Satellite XT transmitter bears a unique address for use on a LonWorks® network. This feature allows it to participate in a community of other intelligent LonWorks® devices, which when considered together, comprise a life safety system network. Gas concentration and alarm information are both displayed locally at the MST Satellite XT, as well as distributed onto the LonWorks® network for use by other field devices. The MST Satellite XT provides complete programmability of all monitoring variables including gas type, alarm levels, and maintenance status.

Quick Facts

Applications:

Provides gas detection for:

- Gas cabinets
- Valve manifold box
- Equipment enclosure
- Ambient breathing zone
- Gas storage rooms
- OEM equipment

Advantages:

- Fast, reliable, specific gas detection
- Continuous real–time monitoring
- Interchangeable intelligent sensor cell
- No dynamic gas calibration required
- Generic sensor head electronics
- Low cost of ownership
- No moving parts to wear down or replace

Technical Overview

Performance specifications

Alarm settings	Dual level user settable
Power consumption	max. 1.8 W
Operating temperature	–20 °C to +40 °C (–4 °F to +104 °F)
Relative humidity	20 to 90 % r.h. (non-condensing)
Operational cell life	> 1 year (under normal conditions)
Calibration intervals	6 months (depending on cell)
Applicable standards	RFI / EMC: EN 55022 EN 50082-2

Facilities requirements

Electrical supply MST Satellite XT	12 to 24 VDC
Digital MST Satellite XT Network	Standard LonTalk® Protocol
Data transmission	78 kBit per second
Wiring topologies	Free (loop recommended)
Wiring	Shielded 4 wire cable (2 x 2 x 1.0 mm^2 / 17 AWG) Approx. 2 m delivered with instrument
Analog MST Satellite XT Interface	4–20 mA
Fault	0–2.0 mA
Wiring	Shielded 3 wire cable (3 x 1.0 mm^2/17 AWG) Approx. 2 m delivered with instrument
Enclosure construction	Metalized ABS
Protection class	IP 52 (IP 65 optional)
Overall dimensions H x W x D	95 x 145 x 50 mm (3.7 x 5.7 x 2.0 in)
Weight	480 g (17 oz)
Mounting	DIN Rail

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The table below represents the gases detectable with the MST Satellite XT as ambient detection points (or in combination with the MST Extractive Module XT)

- Ammonia (NH_3)
- Arsine (AsH_3)
- Boron Trichloride (BCl_3)
- Boron Trifluoride (BF_3)
- Bromine (Br_2)
- Carbon Monoxide (CO)
- Chlorine (Cl_2)
- Chlorine Dioxide (ClO_2)
- Chlorine Trifluoride (ClF_3)
- Diborane (B_2H_6)
- Dichlorosilane (SiH_2Cl_2)
- Disilane (Si_2H_6)
- Fluorine (F_2)
- Germane (GeH_4)
- Hexamethyldisilazane (HMDS)
- Hydrazine (N_2H_4)
- Hydrogen (H_2)
- Hydrogen Bromide (HBr)
- Hydrogen Chloride (HCl)
- Hydrogen Cyanide (HCN)
- Hydrogen Fluoride (HF)
- Hydrogen Selenide (H_2Se)
- Hydrogen Sulfide (H_2S)
- Nitrogen Oxide (NO)
- Nitrogen Dioxide (NO_2)
- Ozone (O_3)
- Oxygen Deficiency (O_2)
- Phosphorous Oxychloride ($POCl_3$)
- Phosgene ($COCl_2$)
- Phosphine (PH_3)
- Silicon Tetrachloride ($SiCl_4$)
- Silicon Tetrafluoride (SiF_4)
- Silane (SiH_4)
- Sulfur Dioxide (SO_2)
- Tetraethylorthosilicate (TEOS)
- Trichlorosilane ($SiHCl_3$)
- Trimethyl borate (TMB)
- Trimethyl phosphite (TMP)
- Tungsten Hexafluoride (WF_6)
- Combustible Gases

The table below represents the gases detectable with the MST Satellite XT in combination with the MST Pyrolzer Module XT

- Di-chloro-ethylene 1.2 (DCE 1.2)
- Hexafluoro-1.3-butadiene (C_4F_6)
- Methyl Fluoride (CH_3F)
- Nitrogen Trifluoride (NF_3)
- Octafluorocyclopentene (C_5F_8)
- Sulfur Hexafluoride (SF_6)

Outputs and communications

- Life Safety Network – LonWorks®
- Facility Computer – MST DVS Software
- FMS 8700 and FMS 8710 MST controllers
- PLC/SCADA Communication

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