

SafeTNet 100

Single point gas monitor

Thermo's SafeTNet 100 is the ideal instrument for continuous monitoring of combustible gases, toxic gases, or oxygen at one location, for the protection of workers and property. The SafeTNet 100 features simple operation and complete flexibility for selecting alarm logic and alarm threshold.



Sample Draw Transmitter



Combustibles Transmitter



O2/Toxic Transmitter

Transmitters may be mounted remotely from any SafeTNet 100 controller

Features

- Low maintenance, simple operation
- Two levels of alarm provide means of activating external annunciators, ventilation systems, shutting down a process or gas supply
- Reliable, field proven detectors (sample-draw or diffusion style available)
- Durable, weather and corrosion proof, NEMA 4X enclosure
- Industry standard, 4 to 20 mA output provides interface to recorders, dataloggers, and plant-wide control systems
- Optional internal or external amplifier configuration available (O₂, LEL, H₂S, CO only)

Optional Accessories

- Remote mounting adapter (combustibles)
- Explosion proof, air aspirated sample draw adapter (combustibles)
- Line cord with cable bushing (8 ft)
- DC power supply with backup battery
- Signal horn, 115 VAC (weatherproof, non-hazardous areas)
- Red beacon, 115 VAC (non-hazardous areas)
- Calibration kits

Single Point Gas Monitor

The SafeTNet 100 is part of Thermo's complete gas detection family, which includes single gas portable monitors to multi-point integrated systems. You can be confident that our versatile solutions and worldwide customer support will ensure you maximum productivity.

AC Input

100 to 130 VAC, 50/60 Hz or
200 to 260 VAC, 50/60 Hz
(specify input when ordering)

DC Input

12 to 16 VDC (1A maximum)

Recorder

4 to 20 mA, 400 Ohm impedance
maximum

Alarm Relays

- One set of SPDT (Form C) contacts for each alarm level (Warn/Alarm and Fail conditions)
- Contacts are isolated and rated for 3A @ 240 VAC, 5A @ 24 VDC and 120 VAC (resistive)
- Normally energized or de-energized operation

Audible Alarm

Case-mounted buzzer, 94 db at
1 ft, pulsing for Warn and
Alarm, continuous for Fail

Display

Three digit, red LED

Status Indicators

Four, color coded LEDs:

- **Fail Yellow**
Sensor malfunction, downscale reading, or open sensor wiring
- **Pilot Green**
Instrument power on
- **Warn Orange**
Low level threshold exceeded
- **Alarm Red**
High level threshold exceeded

External Controls

External reset switch, resets
latched alarms and acknowledges
Warn alarms

Alarm Logic Choices

- Latching or auto-resetting
- Increasing or decreasing alarm
- Alarm delay 0-16 sec
- Normally energized or normally de-energized

Operating Temp

-4°F to 113°F (-20°C to 45°C)

Relative Humidity

0 to 95% RH, non-condensing

Dimensions

10.94 in (278 mm) H x
8.5 in (216 mm) W x
6.5 in (165 mm) D

Weight

6.2 lbs (2.3 kg)

Enclosure

Rating NEMA 4X, gray fiberglass
with blue panel overlay

Conduit Connection

0.75 inch NPT, two hubs
provided

Wire Terminations

Screw type terminal blocks,
12 gauge wire maximum

Area Classification

General purpose (combustible
gas detectors can be mounted
remotely in hazardous areas)

Approvals

UL approved for non-hazardous
areas only. Combustible gas
sensors approved for Class I,
Division 1, Groups A, B,
C, and D

Warranty

One year (materials and
workmanship)

Gas	Formula	Standard Range
Ammonia	NH3	0-50.0 ppm
Arsine	AsH3	0-0.20 ppm
Carbon monoxide	CO	0-200 ppm
Chlorine	Cl2	0-5.00 ppm
Chlorine dioxide	ClO2	0-2.00 ppm
Combustibles	several	0-100% LEL or 0-5,000 ppm
Diborane	B2H6	0-1.00 ppm
Fluorine	F2	0-5.00 ppm
Hydrogen chloride	HCl	0-0.15 ppm
Hydrogen cyanide	HCN	0-0.50 ppm
Hydrogen fluoride	HF	0-15.0 ppm
Hydrogen sulfide	H2S	0-100 ppm
Nitric oxide	NO	0-100 ppm
Nitrogen dioxide	NO2	0-15.0 ppm
Oxygen	O2	0-30.0% Vol.
Ozone	O3	0-1.00 ppm
Phosphine	PH3	0-1.00 ppm
Silane	SiH4	0-15.0 ppm
Sulfur dioxide	SO2	0-15.0 ppm

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