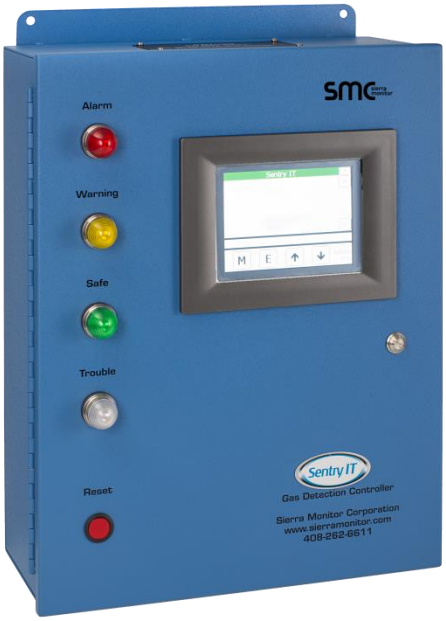
Overview

The Sentry IT Controller is a comprehensive hazardous gas detection monitoring system born with the flexibility and features that meet your specific applications. Sierra Monitor Corporation has been a leader in hazardous gas detection technology for over 30 years and this latest generation of controller is designed for today's detection environments requiring intelligent network interface, minimal maintenance, comprehensive diagnostic information, smart sensor communications and easy to install interconnections.

The internal modular design of the Sentry IT Controller allows the user to select the various inputs and outputs necessary to meet their specific application requirements. For instance, the user can select RS-485 Modbus RTU communication to the sensor modules, or 4-20 mA Analog, or Sentry Bus PSG. Output selections include re-transmitted 4-20 mA, 5 Amp relays or 8 Amp relays.



Features

- Ability to interface to a wide variety of sensor communications, including Modbus RTU, 4-20 mA, Sentry Bus, and conventional dry contact
- Simple menu-driven configuration and operation via a large, touch sensitive, easy-to-read color touch-panel computer
- Modular internal design enabling the user to select those components needed for the application without adding multiple external boxes, yet still offer seamless interface to the system controls
- Interface capability to Sentry IT sensors and other third party sensors and devices
- Super bright LEDs indicating Safe, Alarm, Warning or Trouble conditions and external alarm reset switch
- Outputs to other control devices via re-transmit of 4-20 mA signal, 5 Amp or 8 Amp relays
- USB flash drive interface capability for fast configuration
- Easy interface of necessary data to plant-wide control systems, PC, external touch-screen panel or more
- Retrofit option to upgrade Sentry NEMA classic to Sentry IT
- Universal gateway to external control systems using Modbus TCP/IP, Allen Bradley EtherNet/IP and other commonly used open protocols are available
- Third-party NRTL approvals UL 2017, CE Mark, ABS and SIL-2
- Battery backup capable, providing the desired stand-by power in the event of power outage
- Choice of AC or DC power interface providing power for up to 32 sensor modules

Specifications

Power

AC Version: 120/240V AC +/- 10%, 50/60 Hz
DC Version: 24V DC Nominal (18-30V DC)
Power Consumption: Controller 50W,
Typical max system 200W
Battery Backup Capability: External option

Environmental

Operating Temperature: -14 to 131^{0}F (-10 to 55^{0}C) *
Check with factory for applications outside of 32 to 122^{0}F (0 to 50^{0}C)
Storage Temperature: -4 to 140^{0}F (-20 to 60^{0}C)
Relative Humidity: 0-95% Non-condensing

Enclosure

Design: Wall-mount
Material: Painted mild Steel, 316SS, or GRP
Dimensions (HXWxD):
NEMA1: 18.0 x 14.0 x 6.0 in (45.7 x 35.6 x 15.2cm)
NEMA4 SS: 20.5 x 14.4 x 8.2 in (52.1 x 36.6 x 20.8 cm)
Weight: NEMA1: 30.0 Lbs, (13.6 Kg) Typical
NEMA4 SS: 35.0 Lbs, (15.9 Kg) Typical
Rating: NEMA 1 Standard
(NEMA 4 or optional NEMA 4X)

2 Year Warranty

Connectivity to Modules

Channels: Up to 32 module addresses
Channel Power: 24V DC
Communication:
Analog 4-20 mA 2, 3, or 4-wire per ISA specifications
Modbus RTU (Sentry IT): RS-485 (half-duplex)
Baud: 38400 baud (adjustable 2400 – 38400)
Parity: None
Stop bit: 1
Data bits: 8
Flow control: None
Sentry Bus: Proprietary Power, Signal, Ground (PSG)
Binary Input: Supervised Digital Input

Connectivity to External Controls and Systems

Controller to Ethernet: Modbus TCP or Allen Bradley Ethernet/IP (other protocols available)
Optional - Remote Management: Sentry InSite Web-browser interface
Optional - Mass Storage: Flash Drive via USB port

Display

Type: 5.7" color, backlit touch-screen
Environmental Rating: NEMA 4
Views: Bar charts, text data screens, alarm view, and zone screen configuration screens
Other Indicators: Integral long-life, high-intensity LED lights for Safe, Warning, Alarm and Trouble

Output

4-20 mA: Variable retransmission 2-wire
Relay: Programmable, SPDT (multiples of 8)
Standard: 5 Amps
Optional: 8 Amps
Trouble: 5 Amps, Fail-safe

Approvals

UL2017
UL60950
SIL-2 Certified to IEC 61508
ABS: Certificate of Design Assessment

*Specifications subject to change without notice

Ordering Information:

The following part number is essential in selection of the correct product. Please build up the desired part by inserting the code for each element into the appropriate space (i.e. 5000-32-25-1-3460-A32-0).

Model	Points/Series -XX		Enclosure -X	Stacks -W, X, Y, O	Power -XXX	HMI -X
5000		-IT				
	- 08 - 16 - 32		- 1 = STD NEMA 1 - 2 = NEMA4 SS - 3 = NEMA4X GRP - 4 = RACK Chassis - 5 = 5383-00 Retrofit - 6 = 5383-00 Enclosure - 9 = CUSTOM	- 0 = None - 1 = Analog (16) - 2 = PSG (16) - 3 = Modbus RTU (32) - 4 = RELAY (8A) (8) - 5 = Analog Output (16) - 6 = Digital Input (8) - 7 = Carrier Only (8)	- A32 = AC 100/220 32/16/8ch - D00 = DC 24V - D08 = DC 24V w/ 8Hr BBU	- 0 = InSite, Standard - 1 = InSite, Custom Graphic - 5 = InSite, Wireless (Wi-Fi) - 6 = InSite, Wireless (Cellular) - 9 = Custom Integrated Bridge

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