



A Tyco International Company

# en-GAUGE ELECTRONICALLY MONITORED HAND PORTABLES

Data/Specifications

## FEATURES

- Wireless or hard wired Sensor Interface Modules (SIM)
- Flush or surface mounting of Sensor Interface Modules
- Fully supervised transmitter with a controlled supervision window
- Monitors low/high pressure, obstruction, and extinguisher placement
- Wireless allows for quick and easy installation, ideal for retrofitting on existing building
- Wireless transmitter field range of over 2500 ft (762 m)
- Uses 900 MHz Spread Spectrum Radio technology
- Multiple receiver options
- Normally-open (NO) outputs allow for easy interface with most brands of security and fire systems
- On-board green/red LEDs provide local indication of system status



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## APPLICATION

en-GAUGE technology can be utilized in all applications, but especially in crucial environments, such as hospitals, high rise office buildings, airports, seaports, manufacturing areas, schools, prisons, and nursing homes. These areas, plus many others, require 30 day inspections of all extinguishers to determine: extinguisher pressure is acceptable, extinguisher is not missing, and extinguisher is not obstructed. These inspections can become costly and worse yet, not done at all because of lack of trained personnel.

## DESCRIPTION

The en-GAUGE Sensor Interface Module (SIM) is part of a UL listed, patented monitoring system for ANSUL SENTRY fire extinguishers. The en-GAUGE Sensor Interface Module monitors the extinguishers so they become a fully supervised component of a fire alarm or security system. The SIM allows monitoring of the fire extinguisher 100% of the time for increased security and potentially reduced liability.

The SIM signals an alert when the following situations occur:

- A pressurized fire extinguisher deviates from its normal operating pressure
- A fire extinguisher is missing from its designated location
- Access to the extinguisher is obstructed
- Battery power in the SIM is low or depleted

The unique features of the Sensor Interface Module include:

- Efficient and frequent self-testing of alert status
- Onboard LEDs providing indication of status
- Supports normally open (NO) outputs, providing easy installation with most brands of fire alarm systems and combination fire/security alarm systems
- SIM design is compatible with commercially available plastic extra-deep, single-gang electrical boxes, either surface or flush-wall mounted
- Set-up button for easy testing during installation and troubleshooting
- Stylish faceplate incorporates a unique locking battery door which deters vandalism

## MAJOR COMPONENTS

### Sensor Interface Module (SIM)

The SIM is attached to the en-GAUGE sensor-equipped gauge or en-GAUGE enabled fire extinguisher via a 48 in. (122 cm) tether. The SIM houses electronics that monitor the fire extinguisher for obstruction, presence, abnormal pressure, and battery presence and level.

Additionally, the SIM is designed to switch NO (normally open) circuit outputs for connections to a building fire alarm system or combination fire/security system.

The SIM detects obstructions with a very low intensity ultrasonic sensor. The intensity, duration, and cycle rate (5-15 hours) of the sound is much too low to be heard by the human ear, and is not susceptible to interference by normal ambient noise conditions. The echo range is approximately 30 in. (76 cm). The sound is transmitted from the right port and is received by the left port.

The surface of the object causing the obstruction can affect sensor performance. Obstructions that consist of sound reflective materials with flat surfaces or edges facing the sensor are more likely to be detected than those obstructions consisting of sound absorbent or oblique surfaces. The most common obstructions are assumed to be furniture, storage cabinets, and boxes, which are easily detected.

The SIM detects fire extinguisher pressure (both above and below the acceptable range) through its connection with the en-GAUGE equipped fire extinguisher.

The SIM determines the condition of its battery by monitoring the battery voltage.

In SIM installations, the SIM is hard wired to the fire alarm or fire/security system.

## MAJOR COMPONENTS (Continued)

### Wireless Sensor Interface Module

The Wireless Sensor Interface Module (WSIM) performs the same functions as the Sensor Interface Module (SIM), but requires no hard wiring to the panel. The receiver has to be hardwired to the monitoring panel, but this creates one convenient central location for the monitoring system interconnection. All electronics are contained in a transmitter in the WSIM to send the signal back to the panel. Two types of WSIMs are available, a surface mounted model, and a flush mounted model.

### Wireless Guardian CP 48 Point Panel

For applications that want to supervise the fire extinguishers but do not want to connect the fire extinguisher signals into an existing monitoring or alarm system, the Wireless Guardian Panel can be used as a stand alone fire extinguisher monitoring system. This panel supports wireless extinguishers monitoring applications of up to 48 fully supervised transmitters. Ideal for both commercial and residential applications, the system includes the Wireless Guardian Control/Communicator Panel, an integrated receiver, and an LCD keypad. The panel contains a large 4 amp-hour battery to ensure system operation in the event of a power outage.

The keyboard features two 16-character lines of display and an alphanumeric keypad with backlit elastometric keys. Descriptions for each point are easily entered providing essential recognition of alarm and system status.

Wireless Guardian's simplified programming speeds installation in almost any application. Menu-driven prompts guide the user through step by step set-up, operation, and troubleshooting procedures. Programming options allow for quick customizing of the Wireless Guardian to meet specific customer requirements.

### 16-Output/64-Transmitter Receiver with Display and Relays

The 16-Output/64-Transmitter Receiver offers the ability to add up to 64 fully supervised wireless transmitters (WSIM) to any hardwire panel. The receiver can be hardwired to an existing fire alarm panel utilizing form C contact outputs. It can also trigger sirens, strobes, or other devices to create custom, stand-alone wireless solutions. Form C relays allow each of the 17 (16 programmable and 1 global fault) receiver outputs to be configured as Normally Open or Normally Closed as needed for each individual installation.

Spread Spectrum Radio technology provides unmatched reliability, even in "hostile" or difficult radio environments.

LEDs for each of the 16 programmable outputs illuminate on activation for quick user identification.

### Wireless High Power Outdoor Repeater

The transmitter on the Wireless High Power Outdoor Repeater allows up to four miles of open field range. This makes this transceiver a practical wireless solution for "open-air" installations such as campuses, multi-story buildings, office complexes, and other wireless projects. The transmitter can be programmed to enable supervision.

The unit is available in a weatherproof housing or an attractive enclosure for indoor use.

### 12 Volt, 7 Amp Power Supply

The 12 Volt, 7 Amp Power Supply is utilized for 16-Output/64-Transmitter Receiver if auxiliary panel power is not available.

### en-GAUGE Hand Portable Fire Extinguisher

The en-GAUGE Hand Portable Fire Extinguisher is available in sizes of 5, 10, and 20 lb. These extinguishers are equipped with an en-GAUGE sensor link. This allows the extinguisher to be connected to a Sensor Interface Module (SIM) or a Wireless Sensor Interface Module (WSIM). The properly designed total system is then capable of monitoring the extinguisher to determine if extinguisher pressure is within the acceptable range, the extinguisher has not been removed, or the extinguisher is not obstructed.

Hydrostatic Test Requirement: Once every 12 years (all models)

Operating Pressure: 195 psi (13.4 bar)

## ORDERING INFORMATION

Ansul Part No.	Description	Shipping Weight	
		lb	(kg)
434212	Sensor Interface Module (SIM)	1.0	(0.5)
424214	Wireless Sensor Interface Module (WSIM) Surface Mount	1.5	(0.7)
434215	Wireless Sensor Interface Module (WSIM) Flush Mount	1.5	(0.7)
434216	Wireless Guardian CP 48 Point Panel	7.0	(3.2)
434217	Wireless Guardian Key Pad	1.0	(0.5)
434218	16-Output/64-Transmitter Receiver	2.5	(1.1)
434219	Serial Interface 2000 Point	2.0	(0.9)
434220	High Power Outdoor Repeater	3.0	(1.4)
434213	12 Volt, 7 Amp Power Supply	10.0	(4.5)
434221	12V, 7 Amp/Hour Battery (for Power Supply)	6.0	(2.7)
434222	12V, 1.2 Amp/Hour Repeater Power Supply	1.5	(0.7)
434768	AA05-1 ANSUL SENTRY en-GAUGE Fire Extinguisher (3-A:40-B:C)	10.0	(4.5)
434191	A05 ANSUL SENTRY en-GAUGE Fire Extinguisher (3-A:10-B:C)	10.0	(4.5)
436541	AA10S ANSUL SENTRY en-GAUGE Fire Extinguisher (4-A:80-B:C)	17.0	(7.7)
434777	AA20-1 ANSUL SENTRY en-GAUGE Fire Extinguisher (10-A:120-B:C)	32.0	(14.5)