

8MTJ-A-16 Series Radio Alarm Box

Data Sheet



Overview

The **8MTJ-A-16** Series intelligent Radio Alarm Box is a multi-functional radio alarm reporting transmitter designed to communicate a variety of emergency messages to a Signal Communications Vision 21™ System Processor.

The Radio Alarm Box utilizes a microprocessor technology in an advanced design, while providing the optimum in versatility and performance. Its modular configuration allows for easy installation, maintenance and expansion. It is furnished with an extensive diagnostic and self-testing system to supervise box operation.

The basic **8MTJ-A-16C** (2-way Command & Control) and the **8MTJ-A-16S** (Solar-Powered) are Factory Mutual approved for operation in conjunction with the Vision 21™ System Processor and have been designed for Public and Proprietary signaling systems in accordance with NFPA 72 and NFPA 1221.

Operation

The Radio Alarm Box utilizes a frequency modulated (FM) radio carrier with DTMF (Dual Tone Multiple Frequency) data encoding. The DTMF encoding produces reliable data transmission. The FM signal's high noise immunity to spurious noise and competing signals ensures reliable communication with the receiving console.

Sixteen supervised initiation circuits are available to monitor either normally open (N.O.) or normally closed (N.C.) dry contacts. When activated, each circuit transmits the box number, zone and message type (i.e. Alarm, Trouble etc.) to the Vision 21™ System Processor.

Alternative means of alarm initiation include a pull hook or up to three function buttons located on the outside of the optional cast enclosure. In addition to this, a serial interface board is available to allow a supervised RS-232 connection to equipment, such as an addressable FACP or optional alarm decoder. (Please consult the factory for details on these options and configurations.)

Features

- Factory Mutual systems approved
- Multiple zone transmission
- Extensive built-in diagnostics
- Programmable self-test scheduling
- Transmits alarms restored
- Vandal / Intrusion alarm
- Reliable Frequency Modulated (FM) radio transmission
- Dual-Tone Multi-Frequency (DTMF) data encoding
- Local annunciation
- Programmable round spacing
- Modular configuration allows for easy installation, maintenance, and expansion
- Alarm and Trouble relay output (optional)

Specifications

8MTJ-A-16:

Communications:

| | |
|-------------------|---|
| Data Transmission | Narrowband FM Radio signals |
| Output Power: | 1,2,4 Watts |
| Frequency Range: | 72-76 MHz 135-175 MHz |
| Signal Range: | Up to 20 miles line of sight, or farther using repeaters |

Environmental:

| | |
|--------------------|-----------------------------|
| Temperature Range: | -40F to 150F -40C to 65C |
|--------------------|-----------------------------|

Component Protection:

Moisture Resistant,
Anti-fungus coating
Salt-spray tested

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Specifications

| | 8MTJ-A-16 Standard | 8MTJ-A-16C Command and Control | 8MTJ-A-16S Solar Powered |
|---------------------------|--|---|---|
| Communications: | | | |
| Data Transmission | Narrowband FM Radio | Same as standard | Same as standard |
| Output Power | 1,2,4 Watts | Same as standard | Same as standard |
| Frequency Range | 72-76 MHz 135-175 MHz | Same as standard | Same as standard |
| Signal Range | Up to 20 miles line of sight, or farther using repeaters | Same as standard | Same as standard |
| Electrical: | | | |
| Primary Power | 120 VAC, 60 HZ | 120 VAC, 60 HZ | Photovoltaic Panel |
| Standby Power | 12 VDC, 180 hours | 12 VDC, 180 hours | 12 VDC, 25 AH sealed lead-acid battery 15-day capacity |
| Control Relays (optional) | N/A | SPST relay, 2A @ 30VDC, 2A @ 250VAC | N/A |
| CAT Relays (optional) | SPST relay, 2A@24VDC | Same as standard | Same as standard |
| Indicators: | | | |
| Visual | Alarm and Trouble LEDs for each zone | Same as standard | Same as standard |
| Audio | Pulsating Tone | Same as standard | Same as standard |
| Environmental: | | | |
| Temperature Range | -40F to 150F -40C to 65C | Same as standard | Same as standard |
| Component Protection | Moisture resistant Anti-fungus coating Salt-spray tested | Same as standard | Same as standard |
| Enclosure: | | | |
| Housing Type: | | | |
| Standard | Sheet metal, NEMA 1 (indoor use only) | Same as standard | Same as standard |
| Option #1 | Cast Metal, cottage style surface mounted NEMA 3R (outdoor use) | Same as standard | Same as standard |
| Option #2 | Cast Metal, cottage style recessed mounting NEMA 3R (outdoor use) | Same as standard | Same as standard |
| Dimensions: | | | |
| Standard | 14"H x 12" W x 6" D | 20"H x 16"W x 6 1/2"D | N/A |
| Option #1 | 21"H x 16"W x 9 7/16"D | Same as standard | Same as standard |
| Option #2 | 24"H x 19 1/8"W x 9 7/16"D | Same as standard | Same as standard |
| Mounting: | Vandal Resistant | Same as standard | Same as standard |
| Color: | Fire Red (Consult factory for additional options) | | |