

## M500RAP Relay Control Module

### SPECIFICATIONS

|                            |  |
|----------------------------|--|
| Normal Operating Voltage:  | 15 to 32 VDC   |
| Maximum Alarm Current:     | 6.5mA (LED on)   |
| Average Operating Current: | 300 $\mu$ A, 1 communication every 5 seconds   |
| EOL Resistance:            | Not used   |
| Temperature Range:         | 32°F to 120°F (0°C to 49°C)  |
| Humidity:                  | 10% to 93% Non-condensing  |
| Dimensions:                | 4.67" H x 4.26" W x 1.40" D (118.62 mm H x 108.20 mm W x 35.56 mm D)<br>Mounts to a 4" square (10.16 cm) by 2 <sup>1</sup> / <sub>8</sub> " (5.4 cm) deep box. |
| Accessories:               | SMB500-WH Electrical Box; CB500 Module Barrier   |

UL864 listed

### RELAY CONTACT RATINGS

| CURRENT RATING | MAXIMUM VOLTAGE | LOAD DESCRIPTION | APPLICATION |
|----------------|-----------------|------------------|-------------|
| 3 A            | 30 VDC          | Resistive        | Non-coded   |
| 2 A            | 30 VDC          | Resistive        | Coded       |
| 0.46 A         | 30 VDC          | (L/R = 20ms)     | Non-coded   |
| 0.9 A          | 125 VDC         | Resistive        | Non-coded   |
| 0.5 A          | 125VAC          | (PF = 0.75)      | Non-coded   |
| 0.3 A          | 125 VAC         | (PF = 0.35)      | Non-coded   |
| 0.7 A          | 70.7 VAC        | (PF = 0.35)      | Non-coded   |
| 2 A            | 25 VAC          | (PF = 0.35)      | Non-coded   |

### ⚠ WARNING

All relay switch contacts are shipped in the standby (open) state, but may have transferred to the activated (closed) state during shipping. To ensure that the switch contacts are in their correct state, modules must be made to communicate with the panel before connecting circuits controlled by the module.

### BEFORE INSTALLING

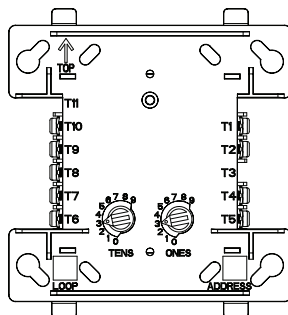
This information is included as a quick reference installation guide. Refer to the control panel installation manual for detailed system information. If the modules will be installed in an existing operational system, inform the operator and local authority that the system will be temporarily out of service. Disconnect power to the control panel before installing the modules.

NOTICE: This manual should be left with the owner/user of this equipment.

### GENERAL DESCRIPTION

The M500RAP Relay Control Module is intended for use in intelligent, two-wire systems, where the individual address of each module is selected using the built-in rotary decade switches. It allows a compatible control panel to switch discrete contacts by code command. The relay contains two isolated sets of Form-C contacts, which operate as a DPDT switch and are rated in accordance with the table in the manual. Circuit connections to the relay contacts are not supervised by the module. The module also has a panel controlled LED indicator.

**FIGURE 1. CONTROLS AND INDICATORS**



C0925-01

### COMPATIBILITY REQUIREMENTS

To ensure proper operation, these modules shall be connected to listed compatible system control panels only.

### MOUNTING

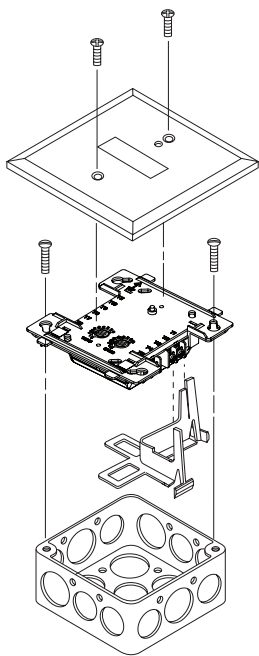
The M500RAP mounts directly to 4" square electrical boxes (see Figure 2A). The box must have a minimum depth of 2<sup>1</sup>/<sub>8</sub>". Surface mounted electrical boxes (SMB500-WH) are available from System Sensor.

### WIRING

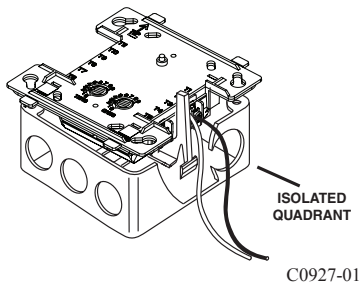
NOTE: All wiring must conform to applicable local codes, ordinances, and regulations. When using control modules in nonpower limited applications, the System Sensor CB500 Module Barrier must be used to meet UL requirements for the separation of power-limited and nonpower-limited terminals and wiring. The barrier must be inserted into a 4"x4"x2<sup>1</sup>/<sub>8</sub>" junction box, and the control module must be placed into the barrier and attached to the junction box (Figure 2A). The power-limited wiring must be placed into the isolated quadrant of the module barrier (Figure 2B).

1. Install module wiring in accordance with the job drawings and appropriate wiring diagrams.
2. Set the address on the module per job drawings.
3. Secure module to electrical box (supplied by installer), as shown in Figure 2A.

**FIGURE 2A. MODULE MOUNTING WITH BARRIER**

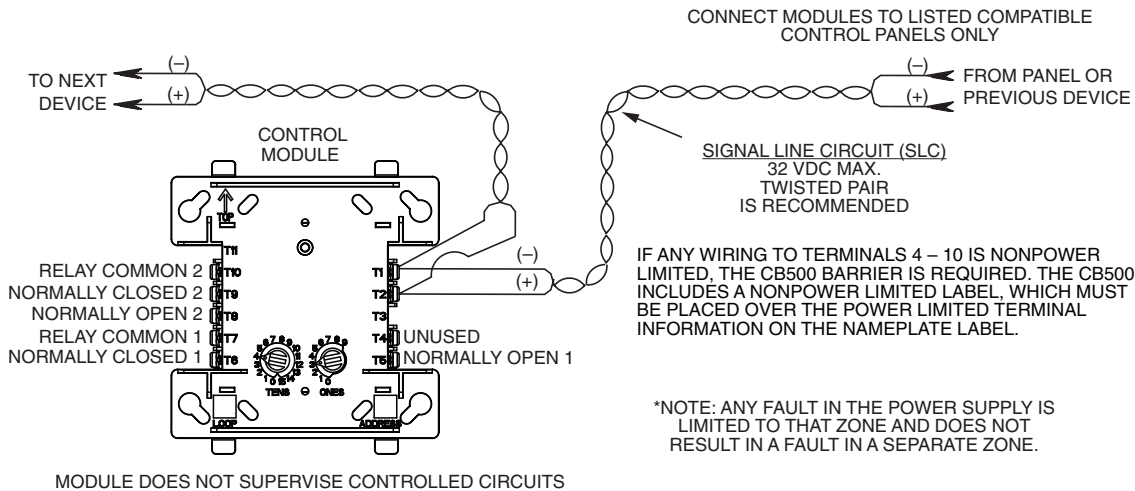


**FIGURE 2B.**



C0926-01

**FIGURE 3. RELAY MODULE WIRING DIAGRAM**



C0924-04

#### FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### DEVICE AND SYSTEM SECURITY

Before installing this product ensure that the tamper seal on the packaging is present and unbroken and the product has not been tampered with since leaving the factory. Do not install this product if there are any indications of tampering. If there are any signs of tampering the product should be returned to the point of purchase. It is the responsibility of the system owner to ensure that all system components, i.e. devices, panels, wiring etc., are adequately protected to avoid tampering of the system that could result in information disclosure, spoofing, and integrity violation.

#### THREE-YEAR LIMITED WARRANTY

System Sensor warrants its enclosed product to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for the enclosed product. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the replacement of any part of the product which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: Honeywell, 12220 Rojas Drive, Suite 700, El Paso

TX 79936 USA. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.