

Installation Manual MOM-4 Monitored Output Module



NOTICE TO THE INSTALLER

This manual provides an overview and the installation instructions for the Monitored Output Module (MOM-4) . This module is only compatible with addressable fire systems that utilize the Potter/Nohmi addressable protocol.

SLC loop wiring (signal line circuit) is power limited. Power supply for terminals 24+ and 24- must be supplied by a UL 1481 power limited power supply, so that the wiring for terminals OUT+, OUT- is power-limited. All terminals should be wired in accordance with the requirements of NFPA 70 (NEC) and NFPA 72 (National Fire Alarm Code). Failure to follow the wiring diagrams in the following pages will cause the system to not operate as intended. For further information, refer to the control panel installation instructions.

WARNING: There is a possibility that the relay in MOM-4 module has been accidentally set to "latched" position during shipment. This would mean the module is in the activated state and the improper wire connection could damage the module or other equipment. **THE INSTALLER MUST ENSURE THAT THE SIGNAL LINE CIRCUIT (SLC) IS CONNECTED BEFORE CONNECTING 24VDC.** If power is applied to the terminals 24+ and 24- and the output is the activated condition, a short circuit of the OUT+, OUT- wires may damage the module. If this should occur, the performance of the Addressable Module must be replaced.

The module shall only be installed with listed control panels. Refer to the control panel installation manual for proper system operation.

1. Description

The MOM-4 module provides a programmable source of power to control and operate output devices. Additionally, it continuously supervises wiring connected to terminals OUT+, OUT- for open or short circuits and 24+ and 24- when 24VDC is applied.

MOM-4 employs one red LED to indicate the status. In normal condition, the LED flashes. When the output is activated, the LED will turn on constantly. In case of trouble, the LED will turn off.

The system allows maximum 13 points illuminating constantly therefore if additional devices are in the alarm condition, the LED will flash rather than latch on steady.

2. Setting the Address

Each addressable module, smoke sensor, heat detector and combination sensor/detector must have the address set prior connecting the device to the SLC loop. The address is set using the hand held device programmer.

Prior to connecting a device to the SLC loop, the following precautions should be taken to prevent potential damage to SLC or device. Verify the following before proceeding. Document discrepancies and notify appropriate personnel.

1. Power in the Addressable Module is removed
2. Field wiring on the module is correctly installed.

Field wiring has no open or short circuits

3. Wiring diagram

Connection as a Notification Circuit

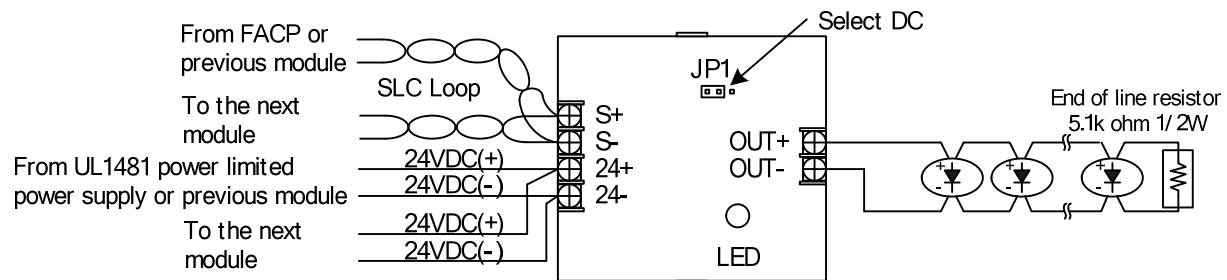


Figure 1: Output Connected to a Notification Appliance Circuit

- Note:
1. The following synchronization modules may be used for strobe synchronization.
 - SM-12/24 (Wheelock)
 - DSM-12/24 (Wheelock)
 - SMD10-3A (AMSECO)
 2. In the case of connecting above-described module-to-module for NAC synchronization.
 - a) The interconnection between the MOM-4 and the output shall be within a common enclosure; and
 - b) The circuit connections extended to additional fire alarm control unit equipment is required to be made within 20 feet(6.1m) of each other and be enclosed within conduit or equivalently protected against mechanical injury.
 3. Refer to respective Sync Module manuals for the proper wire connection method and limitations
 4. When notification appliances are connected to the MOM-4, additional MOM-4 modules should be separated by a short circuit isolator (SCI). If wiring Class A, Style 7, then each MOM-4 is required to have its own listed UL 1481 power supply.
 5. When notification appliances are connected to the module, the resistance values of terminals OUT+, OUT- must be less than R max below:
 - $R_{max} = (24V - V_{min})/I_t$
 - V min: Min. operating voltage of connected device
 - I_t: Total of operating current of connected device (ampere)

4. Installation Instructions

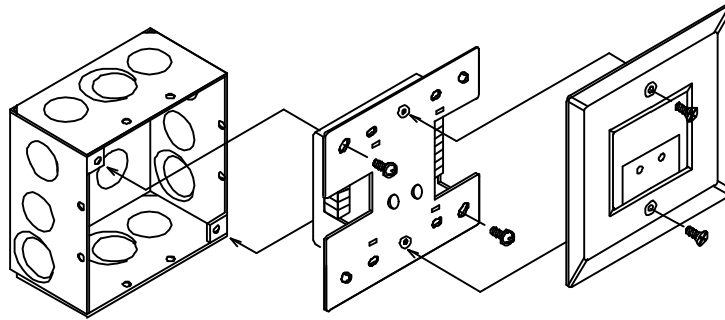


Figure 4: Installation into the compatible electrical box

5. Specifications

No.	Item	Specification
1	Rated voltage range of SLC input power (S+,S-)	22.0 to 24.0V
2	Maximum SLC 24 VDC standby current (S+,S-)	250 μ A
3	Maximum SLC 24 VDC alarm current (S+,S-)	1mA
4	Rating for connected device power (Releasing device and NAC)	24VDC, 2A
5	Max. supervising current for external 24 VDC input power (24+,24-)	1.6mA
6	Wiring style	NFPA Class B (Style Y)
7	End-of-line resistor value for notification appliance	5.1k Ω , 1/2W
8	End-of-line device for releasing device	5.1k Ω , 1/2W with diode
9	Maximum wiring resistance of output circuit wiring	Refer to Section 3. Wiring diagram
10	Maximum wiring capacitance of output circuit wiring	1 μ F
11	Operating temperature range	32 to 120°F (0 to 49°C)
12	Operating humidity range	0 to 93% (non-condensing)
13	Maximum no. of module per loop	127 units
14	Dimensions	4.17"(106mm) (H) x 4.17"(106mm) (W) x 1.14"(29mm) (D)
15	Applicable electrical box for installation	2-1/2"(64mm)deep 2-gang box Standard 4"square box 1-1/2"(38mm)deep box

These instructions do not purport to cover all the details or variations in the equipment described, nor provide for every possible contingency to be met in connection with installation, operation and maintenance.

Specifications subject to change without prior notification

For Technical Assistance contact Potter Electric Signal Company at 800-325-3936

Actual performance is based on proper application of the product by a qualified professional.

Should further information be desired or should particular problems arise, which are not covered sufficiently for the purchaser's purpose, the matter should be referred to Potter-Nohmi or a distributor in your region.



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