

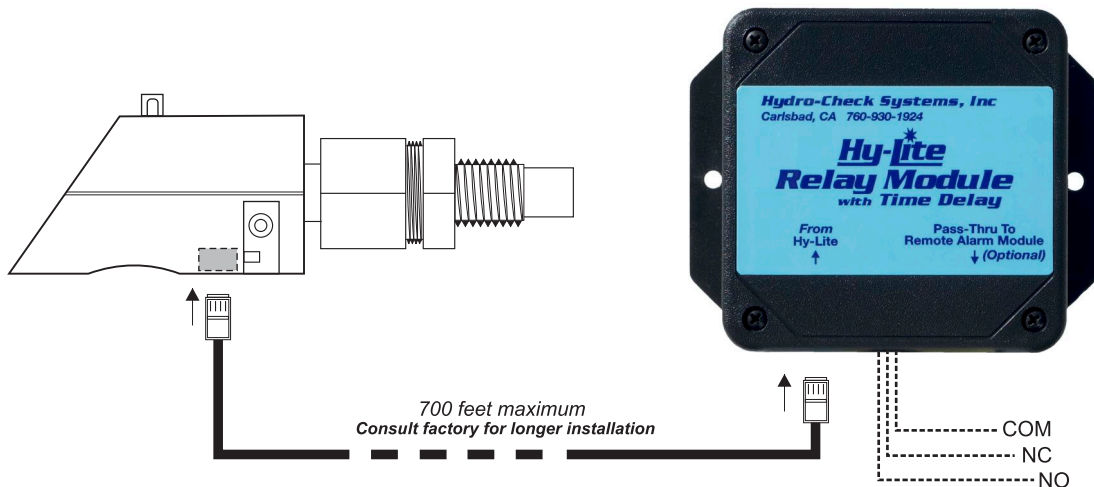
# Hy-Lite Relay Module with Time Delay

## Controller Accessory, Model RMR

Hy-Lite Resistivity Indicators can perform as a controller when used with a Hy-Lite Relay Module. This system has the versatility to be connected to valves, custom alarm systems, etc. Relay activation can be delayed by 0 - 100 seconds to compensate for anticipated equipment *rinse-up* times. A signal pass thru feature allows the Relay Module to be used in conjunction with a Hy-Lite Remote Alarm Module.

The relay is undedicated, allowing the user to supply the appropriate voltage needed for the controlled device. The relay acts simply as a switch connecting the common (COM) terminal of the relay to either the Normally Closed (NC) or Normally Open (NO) terminals. The Relay Module can be configured for "Normal" or "Fail-Safe" operational modes. In the Normal (NORM) mode, the relay will energize (after any preset delay) when water below set-point is detected. In the Fail-Safe (FS) mode, the relay is always energized with water above set-point, AND, power is on to the system. In FS mode the relay de-energizes when water is below set-point or electrical power is lost.

The Relay Module can be installed at distances up to 700 feet. Both module input and Hy-Lite output ports utilize telephone "handset" connectors for fast and easy, *click-click*, installation. Cables are available in standard 10, 50, 100 & 200ft lengths. Other lengths can be ordered, or quickly fabricated on-site with the aid of an appropriate crimping tool.



### Specifications:

Relay Type: SPDT, undedicated

Max Switched Voltage: 380VAC

Max Switched Current: 14 amps N.O. contact, 5 amps N.C. contact (AC resistive); 8 amps DC

Max Switched Power: 200W DC ; 2,000 VA AC

Min Contact Load: 12V, 100ma

VDE Contact Rating: 8 amps, 250 VAC

UL/CSA Contact Ratings: 10 amps, 240 VAC ; 8 amps, 24 VDC ; 1/3HP, 120 VAC ; 1/2HP, 240VAC

Time Delay: 0 - 100 seconds, adjustable

Enclosure: ABS plastic, 3.2" x 4.3" x 1.35"

Signal Supply: Hy-Lite Resistivity Indicator Model HLA or HLS

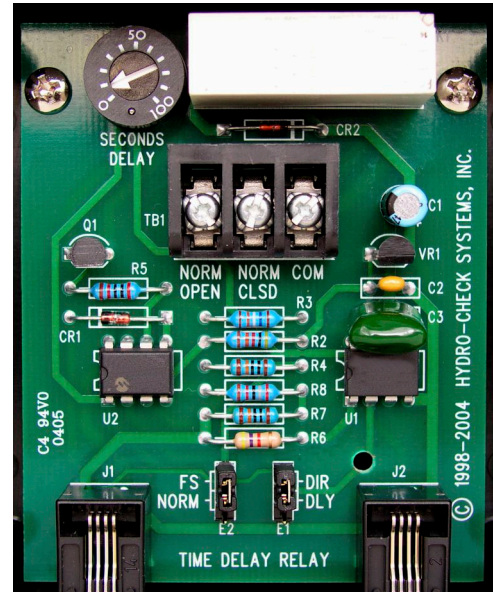
Hy-Lite Interconnection: Flat-oval telephone cable, four wire, 26 gauge, UL 4110  
with FCC 68 modular handset connectors

Maximum Cable Length: 700 feet

## Basic Installation:

The Relay Module is designed for surface mounting, such as on a wall or inside a control panel. Choose a location suitable for the application with enough room to facilitate easy wire connections. Only qualified personnel should attempt wiring of the relay. Please contact the factory for any technical assistance.

- 1) Once a suitable location has been found, attach the Relay Module using two screws or fasteners suited to the material.
- 2) Before attempting to install wiring to any device, be sure power is correct for the device and is disconnected.
- 3) The relay acts a switch to open or close only one of the leads supplying power to the device, typically the "hot" side of the circuit. Cut and strip (1/4") of both the hot lead from the power supply and the hot lead from the device. Route the wires thru the access hole located in bottom of the module enclosure. Insert the prepared wires in the relay module's COM and NC, or COM and NO positions as dictated by the need for completed circuit above or below Hy-Lite setpoint. Tighten the terminal block screws to securely fasten the wires.
- 4) The adjustable trimmer allows the relay activation to be delayed by 0-100 seconds to compensate for any expected equipment *rinse-up* times. Adjust the delay as needed by turning the adjustment screw with a fine screwdriver.
- 5) Re-install the module front cover.
- 6) Connect the interconnecting RPC cable to the module and Hy-Lite.
- 7) Connect device source power.

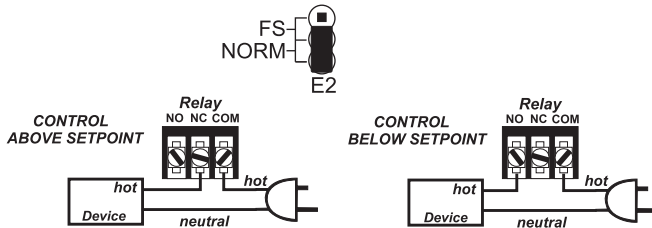


## Normal and "Fail-Safe" Relay Configurations

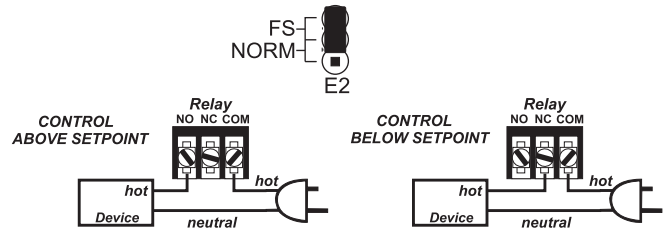
The Relay Module is shipped from the factory with the relay configured for "normal" (NORM) operation: Above Set-Point, relay de-energized; Below Set-Point, relay energized.

If loss of power to the system is a concern, "Fail-Safe" (FS) operation can be user selected. Pull off the E2 circuit board jumper and re-install as shown. Above Set-Point, relay energized; Below Set-Point, relay de-energized.

### Normal (NORM) Configuration

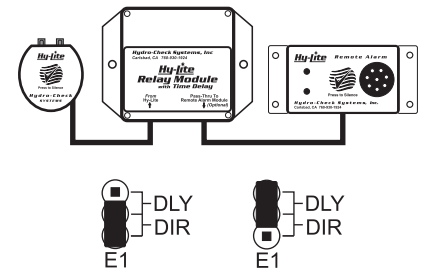


### "Fail-Safe" (FS) Configuration



## Pass-Thru Feature

A Hy-Lite Remote Alarm Module can be used in conjunction with the Relay Module by simply connecting the Remote Alarm Module cable to the *Pass-Thru* connector of the Relay Module. The time-delay of the relay may also be used to delay the signal of the *Pass-Thru* via the jumper block (E1) on the circuit board. The module is shipped from the factory with the jumpers set for a DIRECT (DIR), undelayed *Pass-Thru*. To incorporate the delay interval in the pass-thru circuit, pull off the jumper block and re-install on E1 in the DELAY (DLY) position as shown.



**Note:** A Hy-Lite Transformer should be dedicated to the system, and multi-Hy-Lite power configurations are not recommended. Refer to the Hy-Lite Installation & Operation brochure for information on Hy-Lite installation. Installation should be away from moisture or splashing to avoid corrosion to the cable connections and internal circuitry. Do NOT install outdoors. If the enclosure should become wet, disconnect the controlled device power source and then dry module promptly.

**Hydro-Check Systems, Inc**  
 5931 Sea Lion Place, Suite 100, Carlsbad, CA, USA 92010  
 tel: 760-930-1924 fax: 760-930-1934  
 www.hydrocheck.com

### Warranty

The Hydro-Check Systems Hy-Lite, Relay Module, and accessories have a warranty against defects in materials and workmanship for a period of 2 years from the date of manufacture. Warranty items returned prepaid will be repaired or replaced by the factory at no charge. Warranty applies only to product defects and Hydro-Check Systems accepts no other liability.