

## INSTALLATION INSTRUCTIONS FOR DCP-FRCME-4/FRCME-P/FRCME-PI FAST RESPONSE CONTACT MONITORING MODULE

The information contained in this installation instruction is a quick reference guide. For detailed system information refer to the panel manufacturers installation manual. This instruction is generic and will not address specific programming procedures.

### GENERAL DESCRIPTION:

This instruction applies to the DCP EEPROM Fast Response Contact Monitoring Module (FRCME) which is to be connected to a DCP Signaling Line Circuit (SLC). Typical applications are manual pull stations, water flow devices or any dry contact alarm device, N/C contacts can be monitored.

### MOUNTING REQUIREMENTS:

The DCP FRCME Module has two mounting options. The FRCME-P/FRCME-PI is shown in Fig. 3A, FRCME-4 is shown in Fig. 3B,

### WIRING:

NOTE: All wiring must conform to local codes, ordinances and regulations.

- 1) Install module wiring in accordance with the job drawings and appropriate wiring diagram (see Figs. 2A or 2B).
- 2) Secure the module to a U.L. listed electrical box (supplied by installer) as shown in Figs. 3A or 3B.
- 3) The address must be set on the FRCME-4 before the cover plate is attached (see Fig. 1B).

#### CAUTION !!!

TO ENSURE PROPER OPERATION CONNECT THIS MODULE TO A COMPATIBLE FIRE CONTROL PANEL ONLY. REFER TO PANEL INSTRUCTIONS FOR PROPER CONNECTION AND COMPATIBILITY.

#### CAUTION !!!

IF THIS MODULE 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 MODULE.

### FRCME-P/FRCME-PI ADDRESS PROGRAMMING CONNECTIONS:

To program the FRCME-P/FRCME-PI, connect the red alligator clip to the S(In) wire and the black alligator clip to the SC(In) wire (see figure 1). For proper address setting, polarity must be observed.

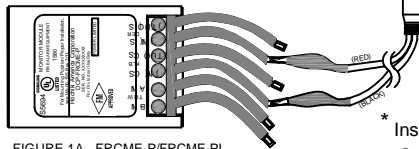


FIGURE 1A FRCME-P/FRCME-PI

\* Insert programming jack into TCH-B100 Address Programmer. See TCH-B100 instructions for programming detail.

### FRCME-4 ADDRESS PROGRAMMING CONNECTIONS:

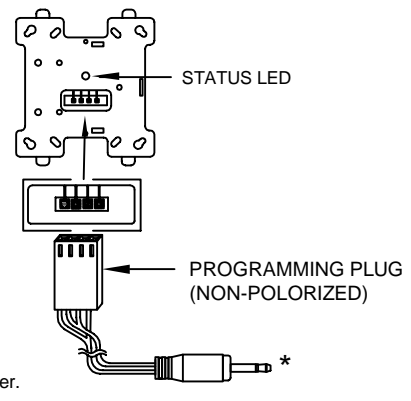


FIGURE 1B FRCME-4

FRCME-PI version has built-in SCI Short Circuit Isolator circuitry.

### INTEGRATED SCI SHORT CIRCUIT ISOLATOR OPERATION

The DCP-FRCME-PI module has built-in integrated SCI circuitry. In the event of a short on the S-SC line, the SCI circuit will activate and the module will report the short circuit condition to the Fire Control Panel.

The SCI has a fast response time but the Control Panel will momentarily detect a short before the SCI circuit breaks open if the short occurs during normal operation. However, if the S-SC line was short before power-on, the Control Panel will only detect an open loop because the SCI switch circuit never closes. In that case, it will rely on the module to report a short.

The SCI circuit will prevent entire loop failure in case of a short. Upon removal of the short condition, the SCI will automatically restore the entire loop to normal operating state.

**NOTE:** An average of 6.75mA (communication current) per loop of SLC devices, must be factored into the panel battery backup calculations.

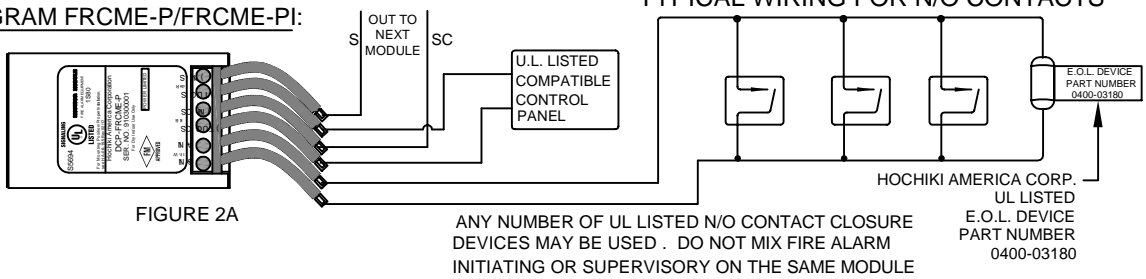
Note:  
Radio Frequency Interference and Electro-Magnetic Interference are sources of noise that can adversely affect the fire alarm systems installation. Avoid running SLC circuits in the same conduit as power lines. Utilize twisted pair and shielded wire in environments where excessive noise is expected. When installing fire alarm system devices, avoid placing devices or wiring close to potential noise sources such as:

- Transmitters or antennas;
- Ballast lighting;
- Electrical motors;
- Large power transformers;
- Large machines.

## SPECIFICATIONS

SLC Applied Voltage	Rated Range 25.3 - 39 VDC	
SLC Current Consumption	Maximum	900µA
	Nominal	770µA
SCI Current Consumption (model FRCME-PI only)	10mA (Typical)	
IDC Circuit Rating	3.2VDC 100µA	
EOL Device for Input	HOCHIKI AMERICA CORP. Part NO. 0400-03180 10KΩ, 1/4w, 1/4inch	
Visual Indicator (Status LED) (FRCME-4 only)	bi-color LED - Green & Red Color & Mode - Selected and Programmed by Control Panel's software	
Operating Temperature Range	0°C (32°F) ~ 49°C (120°F)	
Storage Temperature Range	-30°C (-22°F) ~ 70°C (158°F)	
Maximum Relative Humidity	Up to 90% RH non-condensing	
Environment	Indoor dry use only	
Dimensions	FRCME-4	4.2"W X 4.7"H X 1.4"D
	FRCME-P/FRCME-PI	3.0"W X 1.9"H X 0.5"D
Weight	FRCME-4	Approximately 8.0 ounces
	FRCME-P/FRCME-PI	Approximately 3.1 ounces

**WIRING DIAGRAM FRCME-P/FRCME-PI:**



CIRCUIT IN-A, B SHOWN IS SUPERVISED AND INHERENTLY POWER LIMITED.

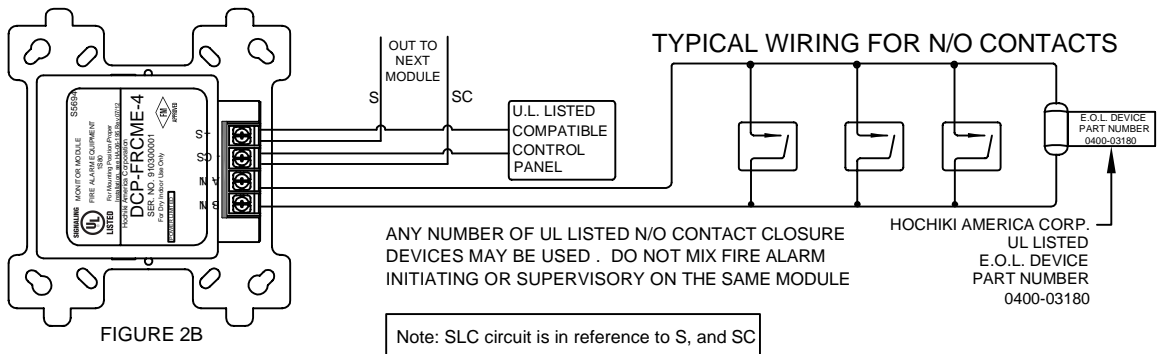
INITIATING DEVICE CIRCUIT (IDC) - NFPA STYLE B (FOR WIRING LENGTH REFER TO TABLE 1)

**NOTE:** Only the same size wire from 12 to 22 AWG may be connected terminal block TB1 when more than one conductor is being connected under each terminal. Maximum of 2 conductor per terminal.

TABLE 1: WIRING LIMITATIONS

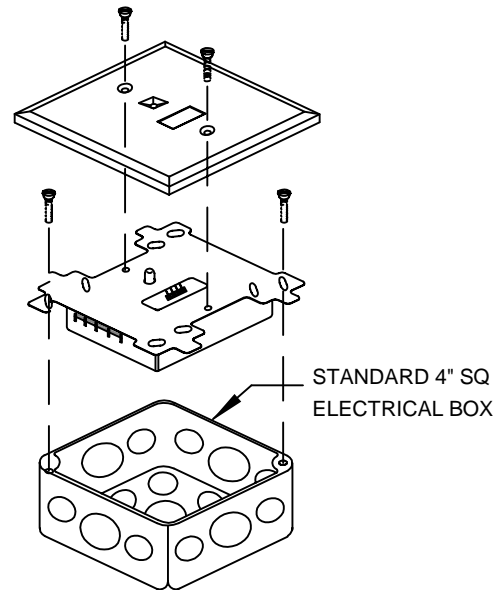
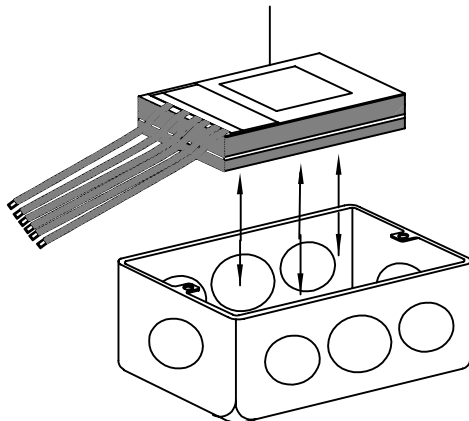
Maximum line impedance between input and initiating devices.
3.50Ω

**WIRING DIAGRAM FRCME-4:**



**MOUNTING OPTION:**

PLACE THE FRCME-P/FRCME-PI MODULE INTO ANY SINGLE GANG BACK BOX (REQUIRE AN OUTLET GANG BOX COVER)



**One Year Limited Warranty**

Hochiki America (HA) warrants its digital communication modules to be in conformance with its own plans and specifications and to be free from defects in materials and workmanship under normal use and service for a period of one (1) year from date of delivery. All warranties are void and HA is not obligated to repair or replace equipment which has been repaired by others, abused, improperly installed, altered or otherwise misused or damaged or exposed to conditions outside the products specifications in any way. HA will not be responsible for any dismantling, reassembling or re-installation charges. Please contact HA's Sales department for proper procedure for claims and return of merchandise. This warranty is in lieu of all other warranties expressed or implied.