



Features

- Single input contact monitor
- Fast, reliable contact monitoring utilizing the LIFECO DCP (Digital Communications Protocol)
- Two different mounting configurations
- 127 devices can be used per DCP loop
- Bi-colored indicating LED provides module status (Both Models)
- Yellow LED indicates a short circuit condition (FRCMA-I only)
- Can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts in Class B
- Operates on Class A or Class B SLC loop
- Accepts up to 14 AWG wire

Operation

The LIFECO LE-FRCMA/-I Fast Response Contact Monitoring Modules are designed to be used with pull stations, water flow switches, and other applications requiring the monitoring of dry contact alarm initiating devices. The interrupt driven Digital Communications Protocol (DCP) combines maximum communication reliability and fast response to emergency conditions. Two different mounting configurations are provided to meet a wide range of applications. The LE-FRCMA/-I contact monitoring module does not require a separate 24 VDC power source.

Each addressable contact monitoring module is programmed with its own unique Signaling Line Circuit (SLC) loop address. The device address is electrically programmable and stored on onboard EEPROM. Up to 127 devices can be placed on the LIFECO DCP SLC loop.

The module supervises the wiring to the contact with an End Of Line (EOL) resistor in Class B mode. It can be programmed to monitor Normally Open (NO) or Normally Closed (NC) contacts. If a fault condition occurs in the wiring, the module sends a trouble status signal to the fire alarm control panel. When a change of status (contact changes state) is sensed by the LE-FRCMA/-I, it sends an interrupt to the Fire Alarm Control Panel indicating that an alarm has occurred. LE-FRCMA/-I version has built-in integrated SCI circuitry. In the event of a short on the S-SC line, the SCI circuit will activate and its yellow LED indicator will be turned on steady and the module will report the short circuit condition to the Fire Control Panel.

Specification

Supply Voltage	25.3 ~ 39 VDC
Average Current Consumption	630µA (Typical) 6.3mA (Alarm)
SCI On Resistance	40m ohm Max. (Normal Condition)
SCI Fault Detection Threshold	12 volts (Typical)
SCI Isolation Current (Short Circuit Condition)	10mA (Typical)
Maximum Quantity Per Loop	127
Dimensions	4.2"W x 4.7"H x 1.4"D
Ambient Temperature	32°F (0°C) ~ 120°F (49°C)
Mounting	4" square electrical box
Relative Humidity	90% RH Non-condensing

Engineering Specification

The contractor shall furnish and install where indicated on the plans, addressable contact monitoring modules LIFECO LE-DCP-FRCMA/-I. The modules shall be UL listed and compatible with the Fire alarm control panel. The device address shall be electrically programmable and stored in EEPROM.

The LE-FRCMA/-I shall be supplied with a plastic face plate and shall be suitable for mounting to a 4" square or doublegang electrical back box. The LE-FRCMA/-I shall provide a monitor LED that is visible through the face plate. LE-FRCMA/-I shall provide a SCI LED that is visible through the face plate.



Back side of LE-DCP-FRCMA-I



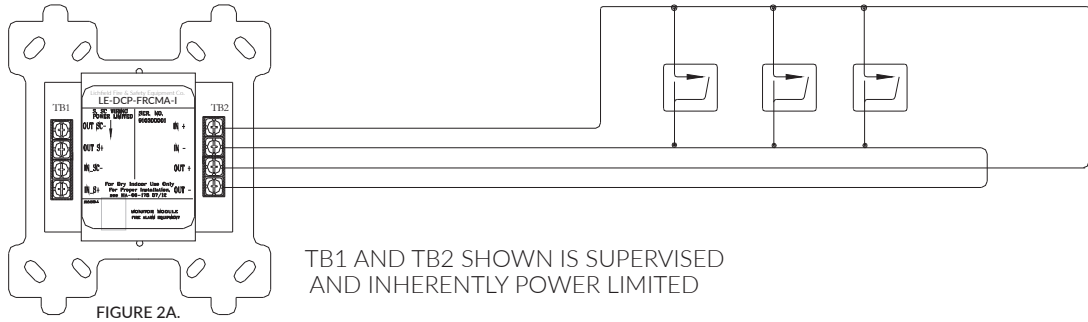
Back side of LE-DCP-FRCMA

Wiring Diagram

LE-DCP-FRCMA/-I

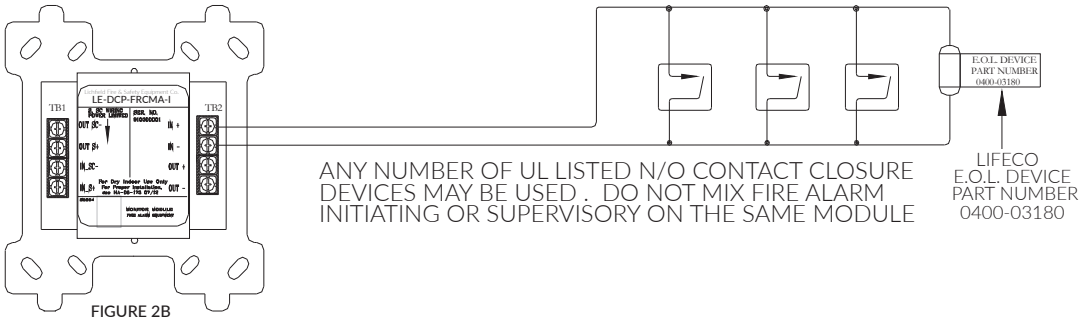
WIRING DIAGRAMS FOR CLASS A (STYLE D) WIRING

NOTE: CLASS A can only monitor N/O contacts



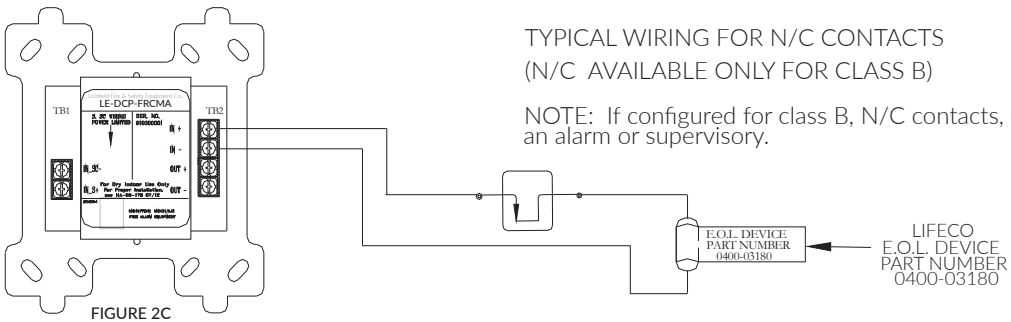
WIRING DIAGRAMS FOR CLASS B (STYLE B) WIRING

TYPICAL WIRING FOR N/O CONTACTS IN CLASS B



TYPICAL WIRING FOR N/C CONTACTS (N/C AVAILABLE ONLY FOR CLASS B)

NOTE: If configured for class B, N/C contacts, this cannot be an alarm or supervisory.



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