10-2473 Supplemental Loop Module Installation Instructions

DESCRIPTION

The 10-2473, Supplemental Loop Module (SLM) provides two additional Class A/B addressable loops, with each loop being capable of supporting up to 254 addressable devices. The SLM raises the system device capacity from 508 to 1016 devices total. Loop specifications for SLM are the same as the loops from the main controller. The SLM interfaces to connecter P15 on the control board using hardware supplied with the SLM.

Standoff Hardware Kit, P/N 02-12031

02-3794	Standoff, 1.25" F/F, 6/32 hex (qty. 4)
02-1589	Screw, 6-32 x 0.375" Phillips (qty. 8)

COMPATIBILITY

The Supplemental Loop Module is compatible with Fike's CyberCat™ 1016 and Cheetah Xi™ control panels. The Loop Module firmware version must match the main controller firmware version. Each module has a sticker that identifies the version. This can also be checked electronically through the main control panel diagnostics.

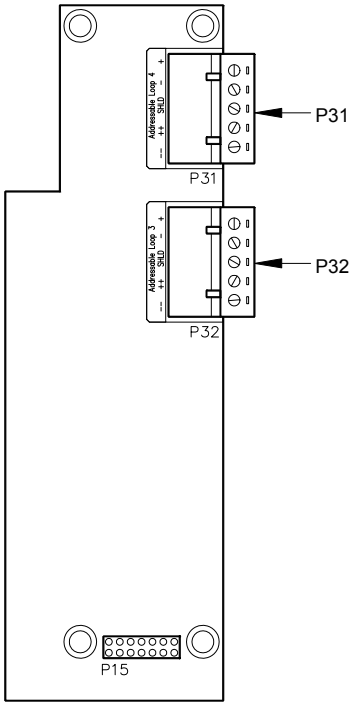

Exhibit 1 Supplemental Loop Module

SPECIFICATIONS

Current Consumption: 100mA standby and alarm

P31 & P32 Terminals (removable):
- Accepts 12-24 AWG
- Addressable Loop 3 & 4 (+,-,shld,++,--)
- Each supports up to 254 addressable devices
- Supports Class B (Style 4), Class A (Style 6) or Class A (Style 7) if using isolator devices
- Power-limited and supervised
- Circuit voltage will range from 24 VDC nominal to 0-5 VDC during data communication pulse. It should never be a constant 0 VDC
- Maximum resistance 70Ω (35Ω per leg)
- Maximum capacitance 0.60uF

Dimensions (LxWxD):
2" x 1" x 6.5" (5cm x 2.5cm x 16.5cm)

Weight:	0.12 lbs. (54 grams)
Operating Temp:	32ºF to 120ºF (0ºC to 49ºC)
Operating Humidity:	93% RH, non-condensing

PROGRAMMING

The SLM must be added to the control panel configuration to enable module and signaling line circuit (SLC) supervision. The default SLC wiring style is Class B (Style 4). If changing to Class A (Style 6) or Class A (Style 7), the configuration should be changed to match the wiring method used. The configuration changes can be made using the panel's configuration menus or using the C-Linx system programming software.

Refer to the associated control panels programming manual or the C-Linx "Users Guide", P/N 06-448 for programming details.

OPERATIONS

The CyberCat™ and Cheetah Xi™ loops provide the communication highway for the Eclipse peer-to-peer communication. They also provide a common bus for the information to travel from loop to loop. Each loop operates independently from one another. Should on loop loose communication with the controller, the remaining loops will continue to operate.

MOUNTING LOCATION

Exhibit 2 shows the acceptable mounting location on the main control board for the Supplemental Loop module for reference purposes.

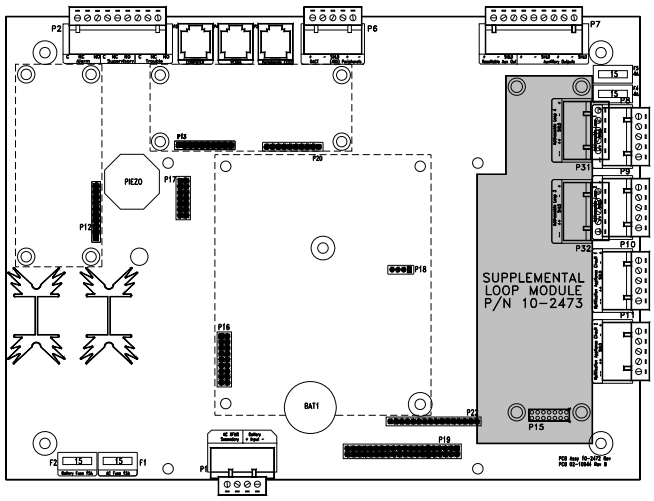

Exhibit 2 Supplemental Loop Module to CyberCat™ 1016 and Cheetah Xi™ Installation (P15)

INSTALLATION

Installation and wiring should be performed by qualified personnel only. Equipment damage and/or malfunction may result from improper installation. Disable all critical system functions and remove all power from the system until the installation is complete and ready for testing.

⚠ CAUTION

The SLM circuit board contains static sensitive components. Handle the electronics by the edges only and avoid touching the integrated components. Keep the electronics in the protective static bag it was shipped in until time for installation. Always ground yourself with a proper wrist strap before handling the module(s). If the installer is properly grounded at all times, damage due to static discharge will not occur. If the module requires repair or return to Fike, it must be shipped in an anti-static bag.

To install the SLM module onto the controller:

1. The CyberCat™ and Cheetah Xi™ require removal of the controller to install the Supplemental Loop Module. If the main controller is already installed in the back-box, remove it by disconnecting the field removable terminal blocks and removing the four hex nut/lock washers located in each corner of the board (See Exhibit 3).
2. Carefully unpack the SLM module and check for shipping damage.
3. Secure the F/F standoffs (qty. 4) to the main board by threading the four 6x32 screws through the back of the main board into the standoffs (See Exhibit 3). Make sure that the screws are not making contact with any of the electronic components on the circuit board.

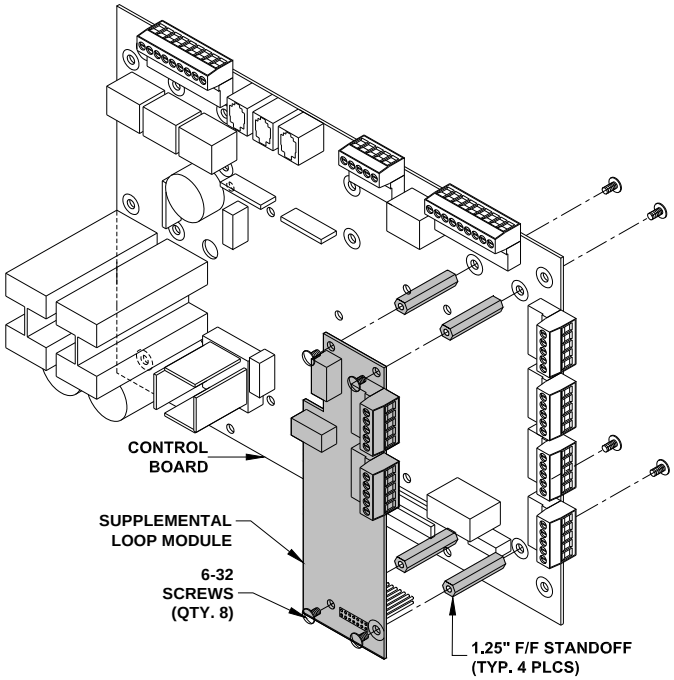

Exhibit 3 SLM Mounting

4. Reinstall the main board by aligning the four mounting holes with standoffs in the enclosure back-box and secure in place with the four hex nut/lock washers.
5. Insert the SLM module into the P15 header making sure that header pins are properly aligned.
6. Secure the module to the F/F standoffs using the four 6/32 screws provided.
7. Apply power to the controller and check for system troubles.
8. Power down the controller and connect field wiring to system controller and field wiring.
9. Power back up and complete installation and checkout procedures for the system.

WIRING

When installing the addressable loop be aware of the surrounding environment looking for possible sources of electrical interference. All SLC wiring should be segregated from such sources for optimum operation. Conduit and shielded cable can be used to help prevent electrical interferences from being induced on the SLC.

If shielded cable is used, land the outgoing drain wire at the control panel. Connect it through and insulate at each junction box and leave unconnected and insulated at the last device.

The SLM circuits have been tested for a maximum wire length of 12,000 ft. (3,657 m) from panel to last SLC device (Class B) using 14 AWG.

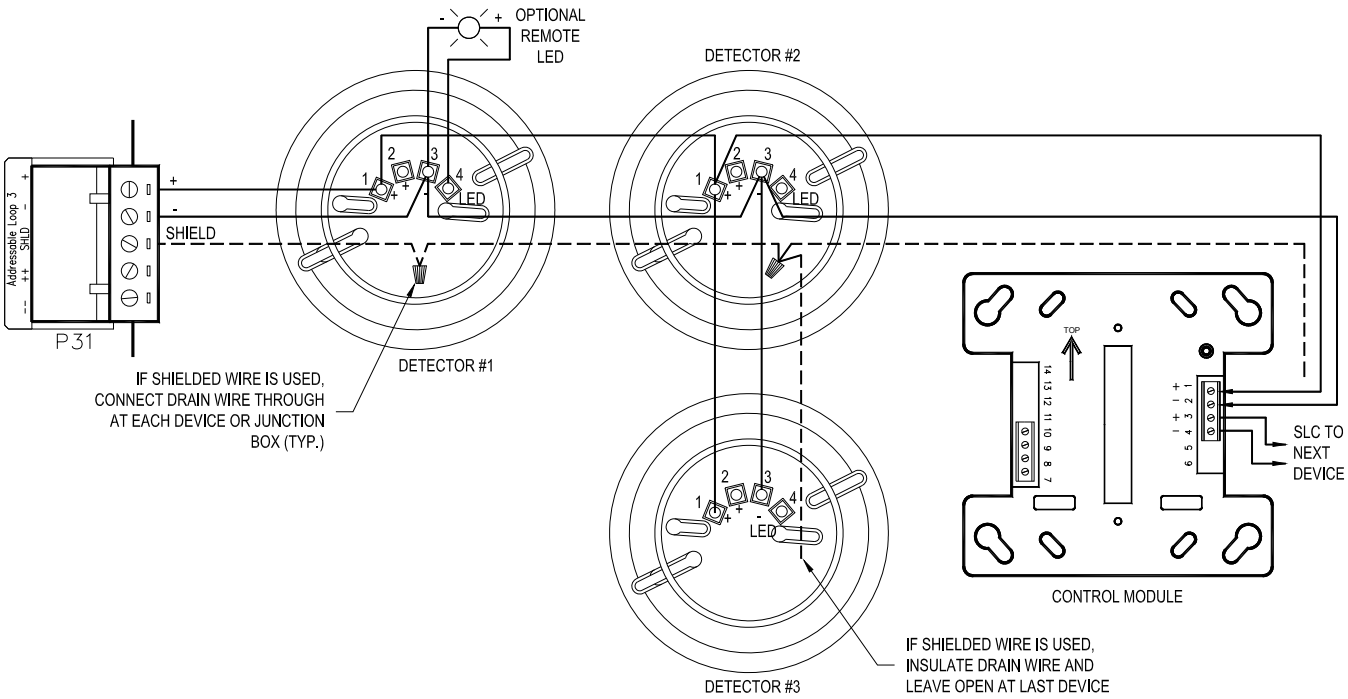

Exhibit 4 SLM Wiring Diagram – Class B (Style 4)

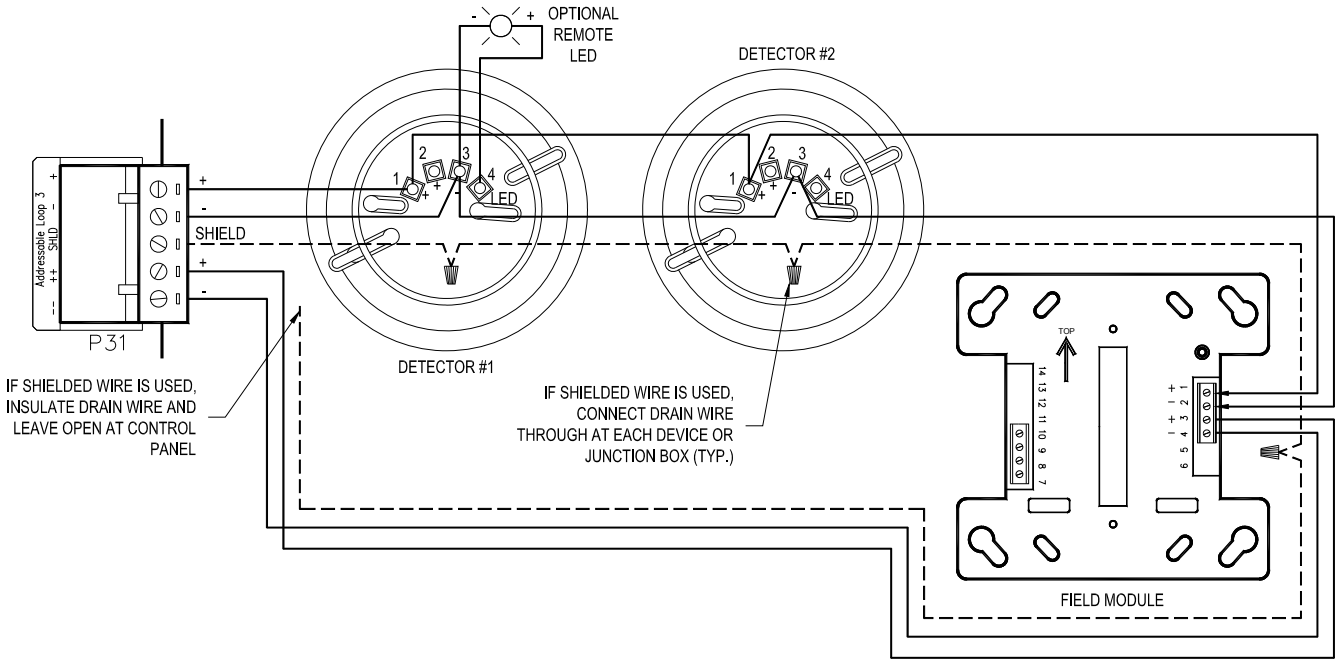

Exhibit 5 SLM Wiring Diagram – Class A (Style 6)

Note: Class A (Style 7) wiring is basically the same as Class A (Style 6), except that all devices shall be isolator type devices and + wiring is broken between terminals 1 an 2 for every isolator device.

Note: If using Style 7 wiring, the first and last isolator device shall be mounted within conduit within the same room as the control panel and no more than 20 ft (6.1 m) from the control panel.