FireSense LTD

FIRESENSE LOOP MODULE - FLC (MODEL 03.004)

Installation Instructions

This is a quick reference guide for the FireSense Loop Card (FLC module). For more detailed system information, please refer to the "Installation & Operation Manual" Doc. # 03.050.INST-B. Please note this instruction will not address the specific programming or operational procedures.

1 Signal Line Circuit (FLC module)

The one FLC module provides two loops Class A or B style 4, 6 or 7 for the Apollo addressable devices, total 252 devices, 126 per loop. The modules may be mounted in the Maine Cabinet (one ore two units) or a Separated Cabinet (SC). The AC2 Model YD9025 cabinet, which is produced by SAE Company (www.1sae.com), is used for remote FLC mounting. Total FLC quantity that is connected to one Panel must be not more than 4.

2 FLC SPECIFICATIONS

FLC module provides the following functions:

- Two Signaling Line Circuits (SLCs).
- To each SLC may be connected up to 126 addressable detectors and input/output devices.
- Compatible with Apollo's Discovery, XP95 and Series 90 devices.
- Automatic detection of Class-A and Class-B connection.
- Each SLC is supervised for removing and adding of devices, and for ground fault for both class A and B.
- Each SLC is supervised for open-circuit in Class A only.
- Each SLC provides protection for loop overload or shorting with restart mode. Overload or shorting of one loop, does not have an effect on the other loop.

FLC parameters are shown below

Parameter	Condition	Nominal	Unit
Loop voltage		24	V
Maximum Loop current		0.5	A
Maximum Loop capacitance		0.5	uF
Power supply voltage		24	V
Maximum FLC Current Draw	@ 24 VDC power, 50 Ohm load in each loop	1.15	A
Current consumption (standby)	@ 24 VDC power, without devices in the loops	65	mA
Overload Loop breaking loop current		0.8	A
Maximum 24VDC line resistance to remote FLC (one side)	@ 24 VDC Panel power and FLC at maximum current draw 1.15A (*)	2	Ohms

*ATTENTION:

Use only 14 AWG wires for 24VDC power connection to remote FLC. Maximum distance between remote FLC and panel must be not more than 232 m (2 Ohm per one wire) at maximum FLC output current (0.5 A) in each loop.

3 FLC installing in the Main Cabinet

Hardware Required:

One FLC module
Four M3x30 stand-offs (socket – pin)
EGND wire
EGND wire installation set (M3x10 screw, M3 nut, three M3 washers, M3 spring washer)

The optional FLC module may be mounted in Main Cabinet on upper layer, according to Fig 1. Connect EGND wire to the module by its installation set. Remove the plastic screws of installed FLC module and tie it to Cabinet Bottom by stand-offs. The FLC module must be placed in two layers with shifting for easy access to the output terminal blocks of lower module. Before the upper module mounting connect Power and Network wires to lower module. EGND wire terminal connect to the closer grounding bolt. Tie the optional FLC module to standoffs by plastic screws. EGND wire terminal connect to the closer grounding bolt.

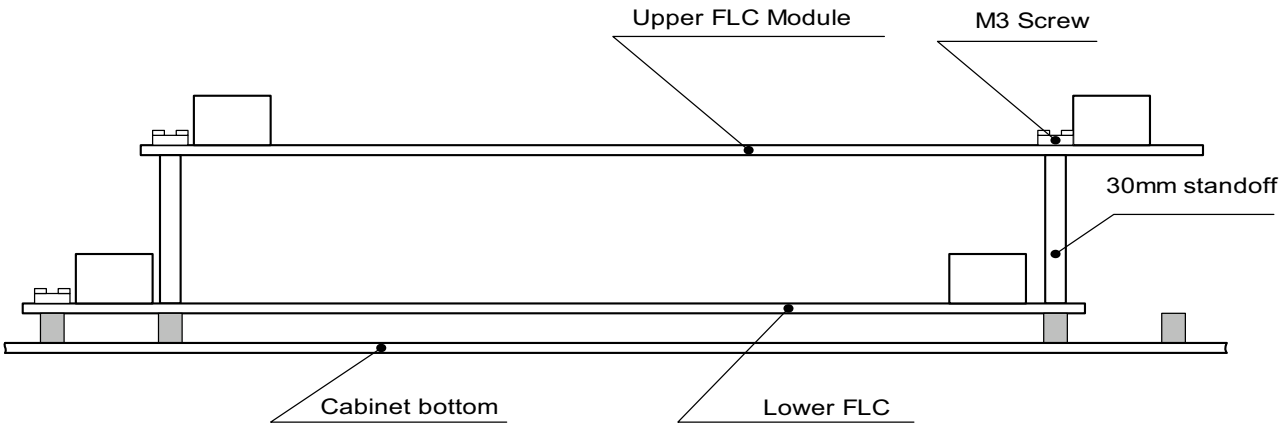

Fig.1 Optional FLC module mounting in Maine Cabinet (side view).

4 FLC installation in Separated Cabinet

Hardware Required:

One FLC module
Four plastic screws
EGND wire
EGND wire installation set (M3x10 screw, M3 nut, three M3 washers, M3 spring washer)
Separated Cabinet – AC2 Model YD9025 (SAE Company www.1sae.com)

The remote FLC module is mounted in the Separated Cabinet according Fig.2. Connect EGND wire to module by its installation set. Place module on the plate stand-offs and tie it to stand-offs by plastic screws. Connect the EGND wire to the grounding bolt.

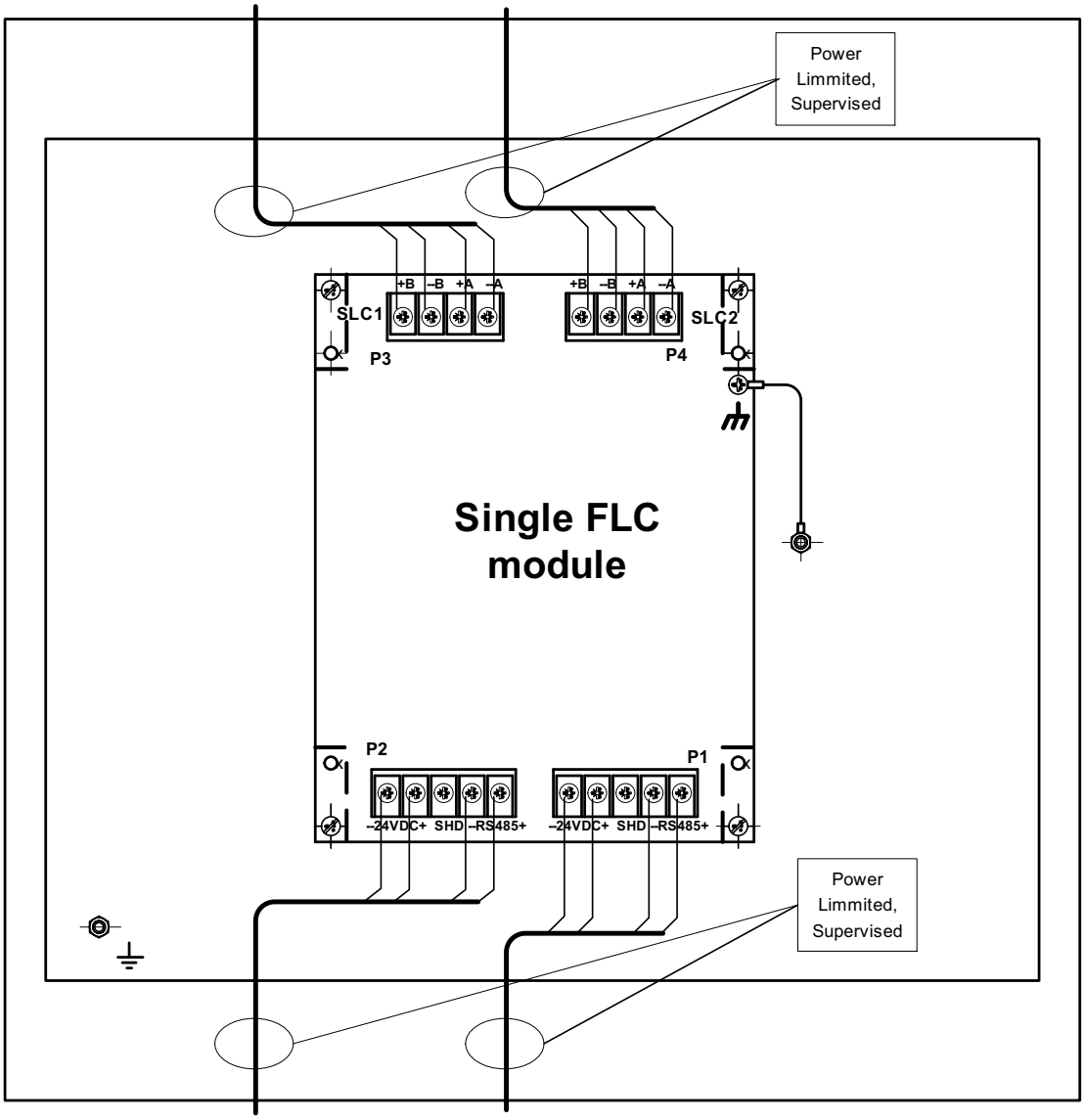

Fig. 2. FLC installation in the Separated Cabinet AC2 Model YD9025

6.2.4 FLC connection to RS-485 network

The FLC module should be connected to power and network according Fig.3. The like contacts of P1 and P2 are shorted therefore Control Panel or previous devices may be connected to FLC via P2 and next device may be connected via P1. Set the module address by dipswitch SW1 (Fig.4). If the FLC is to be used as the last module on the network, dipswitch '**END REM'** must be put to the **ON** position (Fig.5) . If FLC module is used as remote, it should be connected to the P2 MCC terminal block (terminals # 6, 7, 9, 10), if – as local, it should be connected to the P1 MCC terminal block (terminals # 1, 2, 4, 5)

All wires must conform to local codes, ordinances and regulations.

CAUTION!!!

If this module will be connected to an existing operation system, inform operator and local authority that the system will be temporary out of service. Disconnect power to control panel before installing module

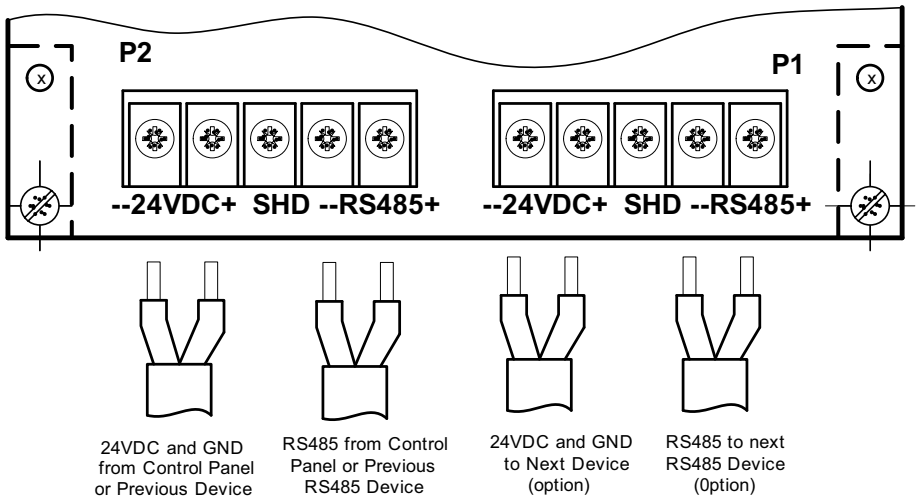

Fig. 3 Power and network wiring.

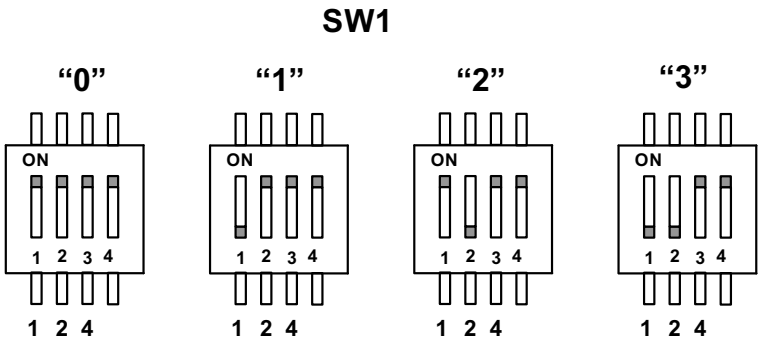

Fig. 4 The switched FLC addresses

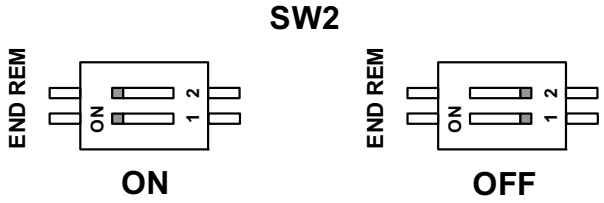

Fig. 5 Connection of load resistor to Network