

## Description

The architecture of an FxIP™ fire control network by Harding is comprised of a series of IP-based distributable modules. These modules include alternate configurations of Addressable loop and IOC/NAC circuit modules (ALM3-IP-xy), standard display modules (SDM3-IP/VPM3-IP), annunciator control modules (ACM3-IP) and other specialized modules noted in other documents.

The first module on every FxIP™ network is a specialized version of the Standard Display Module (SDM3-IP) that is designated as the Virtual Panel Module (VPM3-IP). Network configuration and management are initially performed through the VPM3-IP. The VPM3-IP display acts as a gateway to the other modules installed in the network and can interact with any device configured on those modules.

A single VPM3-IP can interact with up to 49 additional distributed modules of any type in any configuration. As modules are attached to the network, they obtain their IP address assignments from the VPM3-IP managing the modules on the fire control network. All modules are connected with Ethernet cabling via an ESU3-IP Ethernet switch or equivalent hub, or directly (by use of a cross-over cable) to the VPM3-IP.

Standard Display Modules (SDM3-IP) provide identical features/functions as the VPM3-IP with the exception of IP addressing. A VPM3-IP assigns IP addresses to new modules added to the system, an SDM3-IP receives an IP address that is assigned by the VPM3-IP. There can only be a single VPM3-IP on every system, but SDM3-IP modules may be installed in any number up to the system maximum of 50 modules.

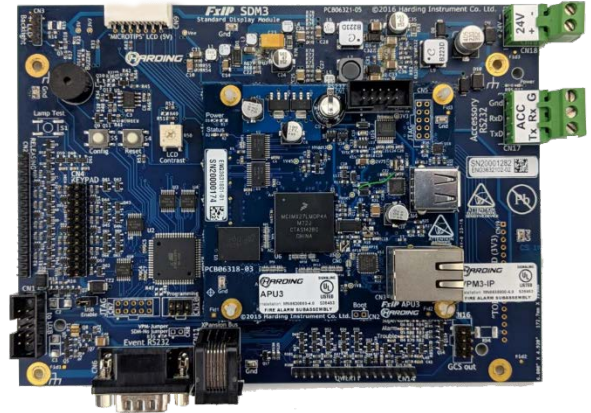
VPM3-IP/SDM3-IP modules feature programmable soft keys, system event annunciation, acknowledge, signal silence, alarm activation and reset switches along with separate switches for sorting history logs. Drill and lamp test are also accessible from any VPM3-IP/SDM3-IP.

VPM3-IP/SDM3-IP modules feature two integral USB 2.0, Type A ports for easy system access. The USB ports can be utilized to program/back-up/restore any or all connected FxIP modules located anywhere on the network to/from any standard USB Mass Storage Device.

A 3000-event history log is available on every FxIP system module. Any VPM3-IP/SDM3-IP is capable of retrieving and viewing the history log of any attached module. The history logs are presented in a retrievable list and can be easily viewed on the display of any VPM3-IP/SDM3-IP or downloaded to a USB Mass Storage Device.

Each VPM3-IP/SDM3-IP can control both a common relay card (CCR3) and Masterbox/Line Reversal Card (MLR3) and provides an RS-485 XPansion bus port to power and control integral (APM3-XP) and remote (RA-220-XP) 20 zone annunciator modules and/or Conventional Zone Interface Modules (CZI-XP).

Any module on an FxIP control system can be viewed, interrogated, configured, backed-up/restored or programmed from the VPM3-IP or any SDM3-IP on the system regardless of location.



## Features

- VPM3-IP provides the initial gateway to other installed modules
- VPM3-IP provides module IP address assignments
- VPM3-IP Interacts with up to 49 additional networked modules per system
- VPM3-IP and SDM3-IP provide for panel level configuration
- VPM3-IP and SDM-IP each provide two built-in USB 2.0 Type A access ports for upload/download of system programming to/from any standard USB Mass Storage Device or connected laptop/PC
- VPM3-IP and SDM-IP each provide an RS-485 XPansion bus port for connecting 20 Zone Annunciators or Conventional Zone Interface Modules (ULC)
- SDM3-IP can be installed in any number up to system max of 49
- Programmable soft keys
- View history log of any attached module
- Access limited by locked Lexan™ door
- 3000 event history log per module
- Modular listing
- Green/RoHS Compliant

## Listing

UL Standard 864 9th Edition  
FCC Part 15 Class A Compliant

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Represented by:



### Engineer Specification

The contractor shall furnish and install, where indicated on the plans, a VPM3-IP module for access to a distributed fire protection network. The VPM3-IP must be capable of assigning IP addresses on an IP based fire network and supervising up to 49 additional distributed modules consisting of Addressable loop/IOC/NAC circuit modules (ALM3-IP), standard display modules (SDM3-IP) and annunciator control modules (ACM3-IP) in any configuration/mix. The VPM3-IP/SDM3-IP shall provide 2 integral USB 2.0 Type A access ports for program upload/download to/from any standard USB Mass Storage Device, laptop or PC. The VPM3-IP/SDM3-IP shall have programmable soft keys and shall be capable of working with any standard IBM compatible USB wired or wireless keyboard. VPM3-IP/SDM3-IP modules shall be capable of retrieving and viewing any history log of any connected module. VPM3-IP/SDM3-IP modules shall be protected behind a locked Lexan™ door and shall have multiple levels of password protection. Each VPM3-IP/SDM3-IP shall maintain an integral 3000 event history log. The VPM3-IP, SDM3-IP and combination of networked modules must be UL listed and UL listed as compatible with Harding network fire controls. The VPM3-IP and SDM3-IP modules shall be Harding part numbers VPM3-IP and SDM3-IP.

### Technical Data

Quiescent Power Draw: 165 mA  
Alarm Power Draw: 185 mA

### Connection Pins

Masterbox Connection/Line Reversal: (MLR3)  
Common Control Relays (CCR3)

### Ordering Information

Part Number

VPM3-IP  
DM3-IP

Description

SDM3-IP configured as VPM3-IP Module for System Management  
Standard Display Module

### Related Modules and Accessory Cards

| Part Number | Data Sheet   | Description   |
|-------------|--------------|---|
| ALM3-IP-10  | DS-ALM3-IP   | ALM3-IP Module with 1 1A/24V SLC, 0 3A/24V IOC/NAC Circuits |
| ALM3-IP-02  | DS-ALM3-IP   | ALM3-IP Module with 0 1A/24V SLC, 2 3A/24V IOC/NAC Circuits |
| ALM3-IP-12  | DS-ALM3-IP   | ALM3-IP Module with 1 1A/24V SLC, 2 3A/24V IOC/NAC Circuits |
| ALM3-IP-20  | DS-ALM3-IP   | ALM3-IP Module with 2 1A/24V SLC, 0 3A/24V IOC/NAC Circuits |
| ALM3-IP-22  | DS-ALM3-IP   | ALM3-IP Module with 2 1A/24V SLC, 2 3A/24V IOC/NAC Circuits |
| MLR3        | DS-CCR3/MLR3 | Optional Masterbox/Line Reversal card                       |
| CCR3        | DS-CCR3/MLR3 | Optional Common Control Relay Card                          |
| ESU3-IP     | DS-ESU3-IP   | Ethernet Switch Unit  |
| EIS6        | DS-ESU3-IP   | Fiber-Optic Switch  |

### Access Ports

USB 2.0 Type A: 2  
RS-232 Serial Interface: 1  
RS-485 XPansion bus: 1  
DB9 Event Port: 1

### Maximum Modules

VPM3-IP: 1  
SDM3-IP: Up to system maximum of 49

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