

## 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 analog loop and NAC circuit modules (ALM3-IP-xy), standard display modules (SDM3-IP/VPM), annunciator control modules (ACM3-IP) and other specialized modules noted in other documents.

In addition, each VPM/SDM3-IP display module can support an RS-485 bus capable of supporting Annunciator Panel Modules (APM3-XP) and/or Conventional Interface Modules (CZI3-XP).

The APM3-XP provides a cost-effective means of local or remote annunciation of up to 20 Fire Alarm Zones.

The APM3-XP is not IP based but rather operates on the SDM3-IP/VP XPansion bus. The XPansion bus provides an RS-485 circuit that can support APM3-XP modules as well as Conventional Zone Interface Modules (CZI3-XP).

The first APM3-XP connected to the XPansion bus is designated as the primary APM3-XP and provides for 20 Zones of Alarm and Trouble annunciation on the front of the FxIP™ Fire panel. The APM3-XP module installs directly on the swing door of the FxIP™ cabinet. The primary APM3-XP can support additional remote APM3-XP connected to the XPansion bus that mimic the primary APM3-XP's activity. The remote APM3-XP is provided within its own remote cabinetry (RA-220-XP).

All APM3's provides Red and Amber LED's for individual Zone annunciation of Alarm and Trouble.

All remote APM3-XP's provide additional Manual Control Switches for Trouble/Alarm Acknowledgement, Signal Silence, Reset, Alarm Signal Activation and Visual Indicator Test.

The first APM3-XP or CZI3-XP connected to the XPansion bus is designated as the primary interface device (via dip-switch settings) and maintains an RS-232 connection with the SDM3-IP/VPM. The primary device establishes the RS-485 network on which all remaining CZI3-XP and APM3-XP remote modules communicate.

The addressing of modules on the RS-485 network is accomplished via the two 10-position rotary switches located on each module. The primary interface module does not need addressing and is automatically recognized by the FxIP™ control panel. The rotary switches on this module are used to define the total number of RS-485 devices on the network (0-29). On all remaining remote modules, the rotary switches are used to establish a unique numerical address.



## Features

- The APM3-XP provides for 20 Zones of
- Alarm and Trouble annunciation for all defined zones on the front of the FACP or remotely
- The XPansion bus supports remote APM3-XP or CZI3-XP modules
- The APM3-XP module mounts directly on
- the swing panel door of FxIP™ Fire Control cabinet
- Remote, Standalone APM's provide switches
- for remote Trouble / Alarm Acknowledge,
- Signal Silence, Reset, Alarm Signal Activation
- and Visual Indicator Test (RA-220-XP)
- Dual rotary switch addressing
- 24 Vdc input power with 40Vdc over voltage
- protection
- 12 Vdc output power

## Listing

UL: Pending  
ULC: Pending

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9564 Yellowhead Trail NW Tel 780.462.7100  
Edmonton, Alberta, T5G 0W4 Fax 780.450.8396  
[sales@harding-tech.com](mailto:sales@harding-tech.com) [www.harding-tech.com](http://www.harding-tech.com)



Represented by:



# Annunciator Panel Module

## APM3-XP

### Control Module

#### Engineer's Specifications

The contractor shall furnish and install, where indicated on the plans, Annunciator Panel Modules (APM3-XP) to provide for Alarm and Trouble annunciation of all defined zones on the front of the Fire Alarm Control Panel. Each zone shall provide LED's to annunciate an Alarm or Trouble Condition. Unless otherwise available via the FACP, the APM3-XP shall provide Manual Control Switches for Trouble and Alarm Acknowledgement, Signal Silence, Reset, Alarm Signal Activation and Visual Indicator Testing. The APM3-XP module shall communicate via the serial interface to the main Fire Alarm control. The addressable serial interface module must be UL/ULC listed and UL/ULC listed as compatible with Harding network fire controls. The addressable serial interface device shall be Harding part numbers APM3-XP, RA-220-XP.

#### Specifications

Input Voltage	24 Vdc +/- 5%
Maximum Total Current	250 mA
Polarity Protection	Reverse Diode
Over Voltage Protection	ESD
Operating Temperature	32°F to 120°F
Humidity	0% to 95% non-condensing
Switch Types	<ul style="list-style-type: none"><li>• Trouble Silence/ Acknowledge</li><li>• Signal Silence</li><li>• Reset</li><li>• Alarm Signal Activation</li><li>• Visual Indicator Test</li></ul>

#### **Xpansion Ports**

##### **Primary XPansion Port: 1**

RS-232 Baud 19.2 kbps  
Over voltage protection: 30V

##### **Remote XPansion Port: 1**

RS-485 Bit Rate: 38.4 kbps  
Load: 29 Devices  
Over voltage protection: Yes  
EOL Resistor Value:

#### **Output LED Sink Driver Specs**

LED Quantity	40
LED Output Voltage	12 Vdc
Maximum Sink Current	20 mA
Minimum LED "On" Current	10 mA
Maximum Pulse Out Rate	8 counts/ Second @ 50% Duty Cycle

##### **Secondary XPansion Port: 1**

I2C Serial: SCL, SCA  
For Future Use

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9564 Yellowhead Trail NW Tel 780.462.7100  
Edmonton, Alberta, T5G 0W4 Fax 780.450.8396  
[sales@harding-tech.com](mailto:sales@harding-tech.com) [www.harding-tech.com](http://www.harding-tech.com)



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