

PENN Peripheral Expansion Network Node

The Peripheral Expansion Network Node (PENN) provides the functionality of the Axis EN Series Fire Alarm Control Panels for use in bespoke graphical mimic, connecting remote inputs and outputs directly to the network, and other special build applications.

The PENN allows a comprehensive range of peripherals to be connected to the network without having to install additional panels.

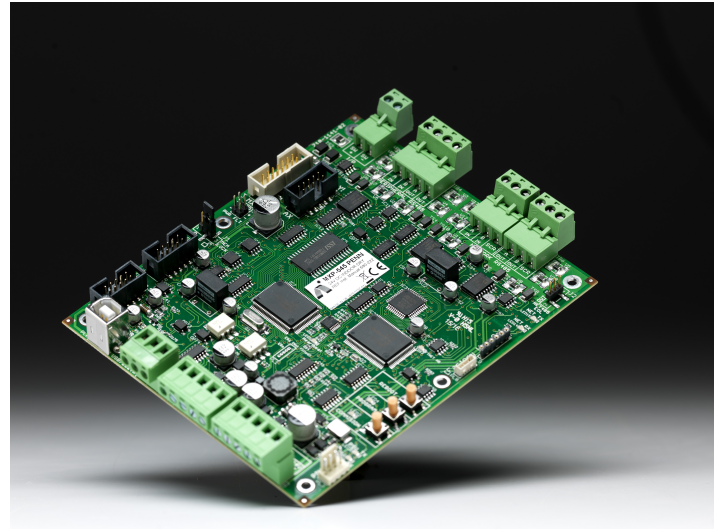
Compatible expansion cards include Input (MXP-537), Relay (MXP-035), Mimic driver (MXP-539), 16-way Switch (MXP-538), Fan/Damper Control (MXP-543), Zone Monitor (MXP-536), Sounder (MXP-034) and ESPA Pager Interface (MXP-547).

Accessories such as a Display Card (MXS-504), Printer (MXP-512), and LED Indicators (MXP-513-xxx) can also be added.

The PENN is pre-built to include either a Standard network or a Fault Tolerant (FT) network interface

The unit is designed for easy wiring installation. "Plug-in" terminal blocks are provided for all connections to the unit. RS232, as well as USB (Type B), are built-in.

The PENN is designed to be installed directly to mounting chassis plates, such as MXM-515-6U, MXM-515-8U, etc. using six fixing screw positions. The chassis assembly can be mounted into MX-5000 and MX-5000R enclosures.



Features

- Lets you install peripherals in remote locations without an additional panel
- Dual Feed 24V DC Power Supply Inputs
- Network in-built – either Standard or Fault Tolerant
- Up to 32 Nodes in Standard configuration and Up to 200 Nodes in FT configuration
- Supports up to 32 PBUS modules (16 of any one type)
- Option to connect standard MX-5000 Display and/or MXP-512 internal printer and/or MXP-513 LED cards
- Switch Input – General purpose or External PSE fault monitor
- RS232 Interface – PC Configuration, External Printer or MXP-547 ESPA
- USB Interface – PC Configuration

Specifications

Power Supply	15-30V DC (24V DC Nominal) – Dual Feed monitored inputs
Supply Current	Standard: 65 mA, Fault Tolerant: 90 mA (typical at 24V _{DC})
Operating Temperature Range	-5°C - 49°C
Humidity (non condensing)	95% RH
Dimensions H x W x D	153 x 127 x 25 mm
Wire Gauge	0.5 mm ² - 2.5 mm ² (12-24 AWG)
Switch Input	Non-monitored / Monitored (3K3 EOL, 680R active)
Network	Advanced Standard or Fault Tolerant (FT) RS485
PBUS	Advanced Peripheral Bus RS485
Serial Interfaces	USB and RS232 (Isolated)

Order codes and Options

MXP-545	PENN Interface Module - Standard Network
MXP-545/FT	PENN Interface Module - Fault Tolerant Network

50-Way Network I/O

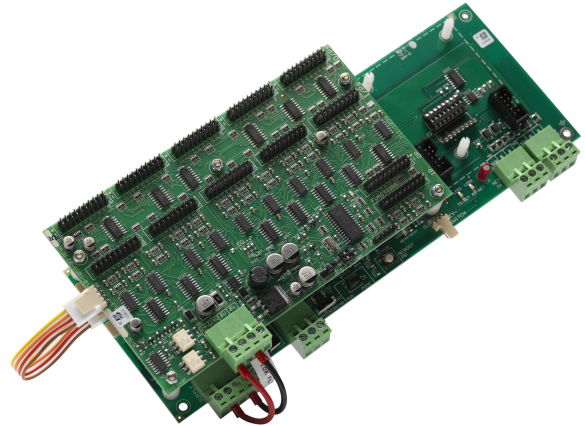
The 50-Way Network I/O provides a convenient and cost effective solution where multiple inputs and outputs are required. It is ideally suited for building control functions such as damper/fan control or sprinkler control where on/off/auto control and healthy/fault or open/closed status indication is required.

The inputs can be configured as toggle (switch) or momentary (push-button) types. The outputs are fully programmable using the powerful dynamic cause and effects rules for output groups 1-50.

In addition to the 50 I/O circuits, dedicated inputs and outputs are also provided. Status outputs include General Fire, Fault, Disablement and Test. A buzzer is also provided for audible annunciation of status changes. Inputs include buzzer mute, momentary input enables/reset and LED test.

The 50-Way Network I/O controller is a stand-alone unit with/without its own EN54-4 power supply and charger. Each input and output on the card is fully programmable using a PC.

An additional 100 LED outputs can be provided using the 100-way driver card – output groups 101-200.



Features

- Over 50 programmable volt free switch/push button type inputs, easily configured via our PC-NET-003 configuration software.
- Over 50 programmable LED driver outputs for energising and providing LED indication.
- Large full colour graphical indication for site maps, building layouts or simply zonal indication.
- Remote location by simply adding the type of mimic interface onto the Ad-net/Ad-net+ Network.
- Supplementary graphical indication
- Zonal or fully programmable LED option
- Fully networkable
- 3 year warranty as standard

Specification

AC Supply (Boxed Versions)	220-240V AC (+10-15%) 50-60Hz 1.6A. Support for up to 2 x 12V 7Ah batteries
DC Supply (PCB) @ 24V DC	18-28V DC 63mA (/FT 101mA) + 0.8mA per LED energised + 1.3mA per switch energised
Output Drive Circuit (56)	3.3V 4mA current limited (for direct LED connection)
Input Circuit (58)	Volt free, dry-contact inputs

Order Codes and Options

Mxp-045*(/FT):	50-Way Network I/O Controller (unboxed)
Mxs-031-2T:	2 position trapped key switch for Mxp-045
Mxs-031-2U:	2 Position un-trapped key switch for Mxp-045
Mxs-031-3U:	3 Position un-trapped key switch for Mxp-045
Mxs-026(F):	High intensity LED (Red/Green/Yellow - Fitted)
Mxp-052(DIN):	Mimic driven 10-way relay card
/FT:	Denotes fault tolerant version

Compatibility

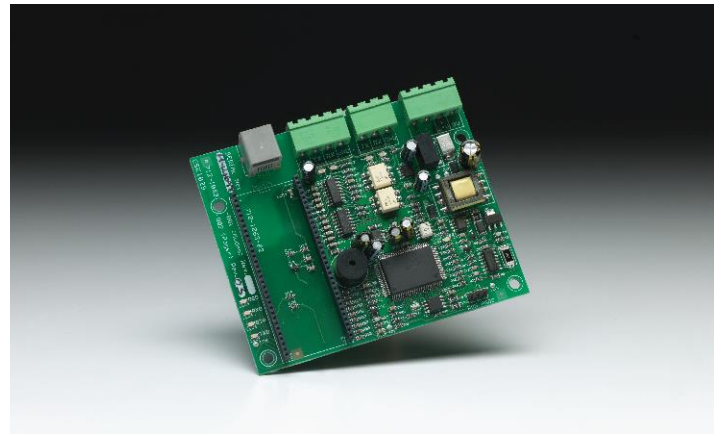
The 50 Way Network I/O is compatible with all Axis EN control panels from software revision 019-04 using the Ad-Net peer-to-peer network. The 50 Way Network I/O is programmable using the Pc-NeT-03 Mx configuration tool from revision 4.19 onwards.

Pager Interface

The Pager Interface is a programmable interface providing connectivity of third party paging systems to the Axis EN control equipment. It utilises the industry standard protocol ESPA 4.4.4 and connects to the equipment via a serial data connection. An optional input function is available to monitor pager fault conditions. Specific event types (e.g. Fire, Alarm, Pre- Alarm, Fault, etc.) can be sent to individual pagers and/or to groups of pagers.

Applications / Limitations

For use with pager systems compliant to ESPA 4.4.4 protocol. If a printer is also required, fit an internal printer assembly.



Features

- Up to 8 configurable shifts per weekday/weekend
- Up to 50 pager groups
- Up to 250 pager addresses
- Each pager address can be configured to cover 2 zone ranges
- Zone and/or point information can be sent to the pager
- User defined texts are available and the basic event type text can be configured
- ESPA 4.4.4 protocol
- Panel mounted or boxed version
- Easily configured via pager PC Software
- 3 year warranty as standard

Specification

Power supply	15-30V DC (e.g. wired from panel 24V auxiliary supply)
Supply current	100mA (typical at 24V DC)
Temperature	-5°C to 50°C
Humidity	95% humidity (non condensing)
Dimensions H x W x D mm	Enclosure: 218 x 300 x 45
Pager Interface	RS232 galvanically (opto) isolated
Fault Input	Non-monitored/monitored (10K EOL, 470R active)
Event Types Supported	Fire Alarm, Test Alarm, Plant Alarm, Pre-Alarm, Fault and Disablement

Order Codes and Options

Mxp-547(F)*:	Pager Interface Card
Mxp-547-BX:	Pager Interface Card (Boxed)
(F)*:	Add F - Fitted (Except Mx-4100, Mx-5101)

Compatibility

PC-NET-011 Configuration program is provided for configuring the pager interface. For compatibility tested pager systems contact your area sales representative. This product can also be used with allAxis EN series panels.