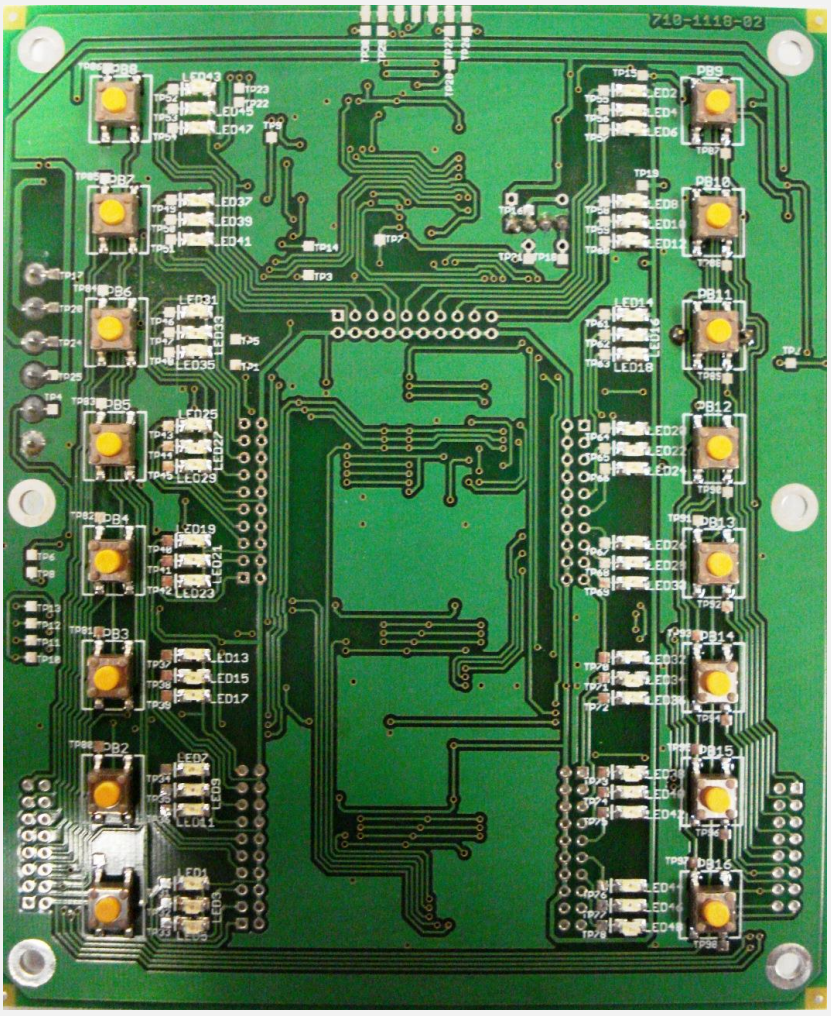
Manual

Advanced

16-Way Switch / 48 LED Card



Features

- 16 Configurable Switches
  Push Button, Switch Input
- Fast Input Response
- 48 Configurable LED Indicators
  OFF, ON, 0.5S ON / 0.5S OFF, 1S ON / 1S OFF
- Configurable Buzzer
  OFF, ON, 0.5S ON / 0.5S OFF, 1S ON / 1S OFF

The operation and functions described in this manual are available from Software Version Mx5000-050-04 onwards.

Specifications:

Models, Sales Order Parts:
MXP-538: Switch / LED Interface LED indicators arranged in groups of 3 (Green, Red & Yellow)

Applications / Limitations:
Units must be mounted locally to their power supply Up to 16 MXP-538 / MXP-539 can be connected to the peripheral bus.

Compatibility:
Compatible with all panels in the MX-5000 range. Requires PC CONFIG TOOL version 6.10 or later.

Item	Specification Details
Applicable Standards	EN54-2, EN54-18
Operating Temperature	-5 to 40°C (23 to104°F) INDOOR DRY
Relative Humidity	10-95% (non condensing)
Operating Voltage	18V -28V DC (wired from FACP 24VDC or a Listed power supply)
Operating Current	60mA maximum Current typical – all outputs OFF: 11mA Current typical – all outputs ON: 50mA
Mechanical	Form Factor Module Plate for mounting in 5000 Series Rack Utility Enclosure
Dimensions (including plate)	168 H x 144 W x 31 D (in mm)
Weight (including plate)	310g
Inputs	16 x Push Buttons, 1 x PSU Monitor
Outputs	48 x LED indicators, 1 x Buzzer
PSU Monitor Input	Volt Free
Screw Terminals (Wire Size)	2.5mm² - 0.2mm² (12 - 24 AWG)
Daisy Chain Connection	10 Way IDC Ribbon Connector

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1 General Installation & Operation

1.1 Module Overview

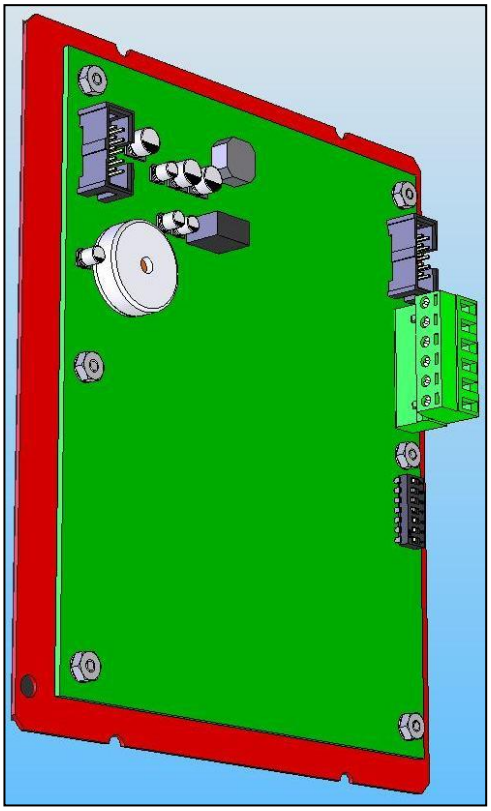
The MXP-538 offers 16 inputs and 48 outputs that can be configured via the Advanced PC Config Tool.

A dedicated power supply monitoring input (volt free) is provided as standard.

This input can be easily disabled, without the need for extra external components, via the on board DIP switches.

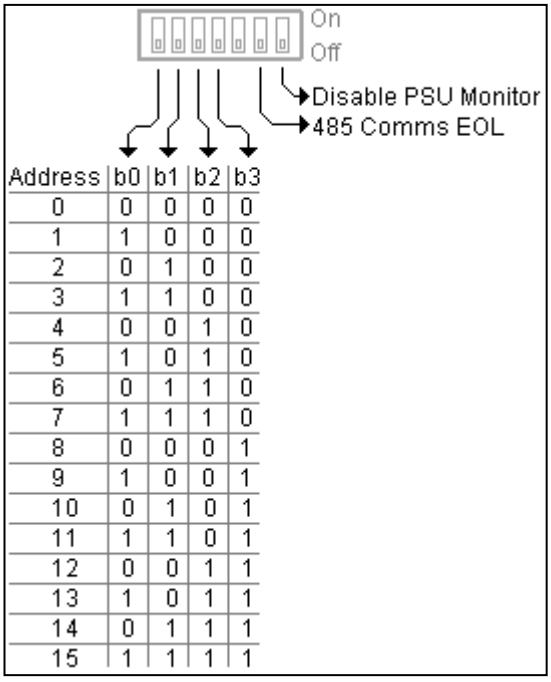
An on-board 485 comms EOL resistor (switched in via the DIP switches) is provided as standard so as to eliminate the need for extra components.

2 x 10 Way IDC headers are provided so as to simplify the installation of multiple cards within the same enclosure.



Rear view

1.2 Basic Configuration



Address	b0	b1	b2	b3
0	0	0	0	0
1	1	0	0	0
2	0	1	0	0
3	1	1	0	0
4	0	0	1	0
5	1	0	1	0
6	0	1	1	0
7	1	1	1	0
8	0	0	0	1
9	1	0	0	1
10	0	1	0	1
11	1	1	0	1
12	0	0	1	1
13	1	0	1	1
14	0	1	1	1
15	1	1	1	1

Each card connected to the 485 Communication Line (PBUS) must have its own address. This address should be set so that it matches the corresponding card within the Advanced PC Config Tool design.

Up to 16* cards can be connected to any one panel.

Set the “Disable PSU Monitor” DIP switch to the “ON” position to bypass PSU monitoring.

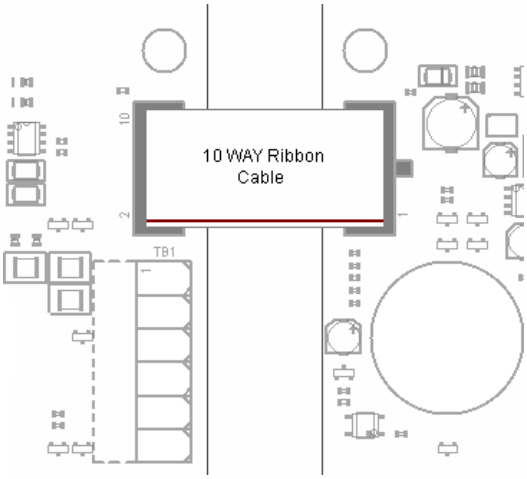
Set the “485 Comms EOL” switch to the “ON” position to enable the EOL resistance (if more then one card is in use only the furthest card from the panel should have its EOL enabled to avoid unnecessary current drain)

* The “MXP-538” belongs to the same family as the “MXP-539” card. A mix of up to 16 of these cards may be present on a system.

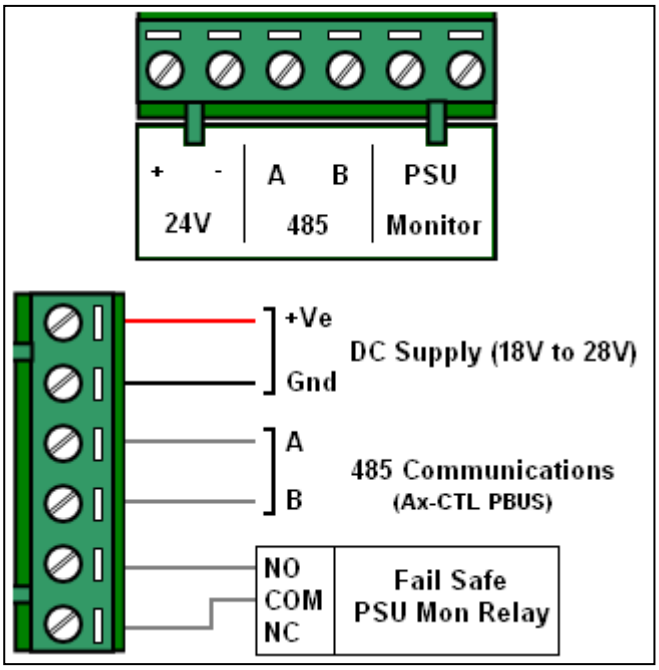
1.3 Daisy Chaining

Multiple units can be easily installed within the same enclosure by using the daisy chain headers, and appropriate 10 Way IDC ribbon cables, to distribute the DC Supply and Communication lines to all the linked cards.

Note: Earth is not linked between cards via the Daisy Chain headers.



1.4 Terminal Block Connections



The Terminal block provides the main contact point between a card, or set of daisy chained cards, and the parent FACP.

The DC Supply can be wired to the FACP Aux1 / Aux2 supplies or a dedicated power supply.

Wiring of the PSU monitor input is optional, and generally only required when operating from a dedicated power supply unit.

This is a **volt free** input that is intended to be wired to the fail safe relay provided by the dedicated power supply.

If PSU monitoring is not required it can be disabled as described in section 1.2

Do not connect multiple PSU monitor inputs in parallel.

1.5 General Notes

The DC power to the MXP-538 card must always be local to the card.

This equipment is constructed with static sensitive components. Observe anti-static precautions at all times when handling printed circuit boards. Wear an anti-static earth strap connected to panel enclosure earth point.

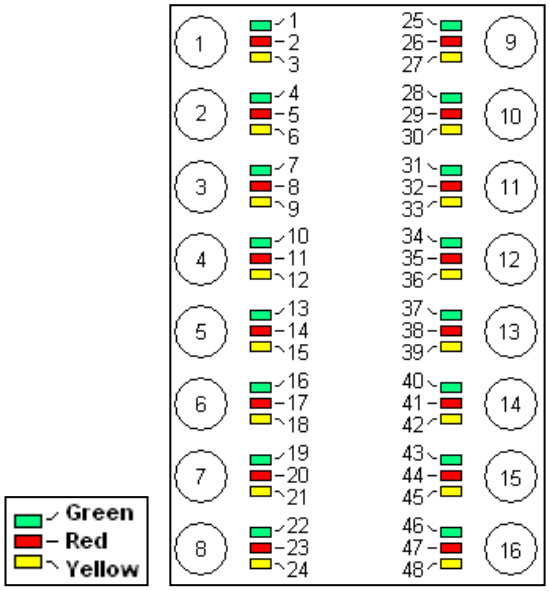
The unit must be grounded; this is normally achieved via the screw terminals used to secure the card to the enclosure. Should this not be the case, a dedicated ground must be provided

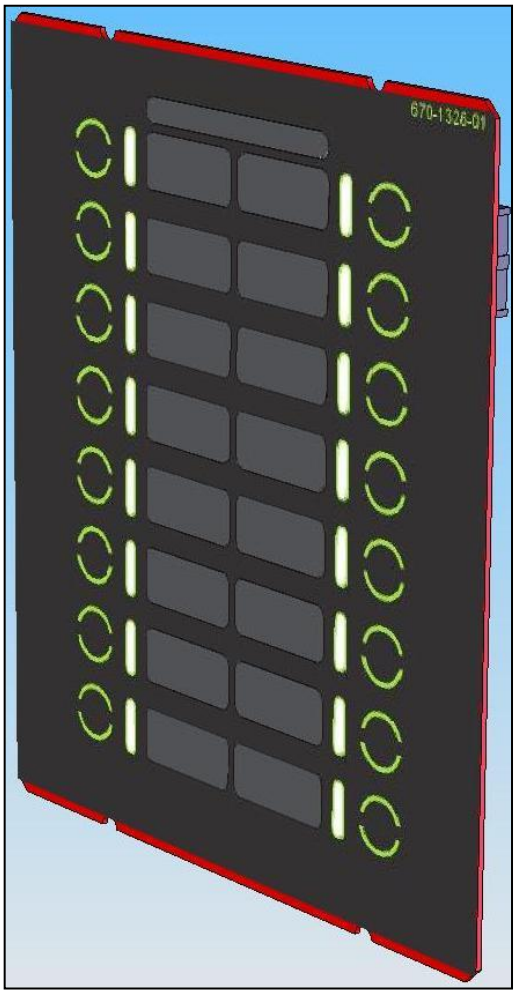
2 I/O configuration

The MXP-538 units must be configured using the latest version of the PC Config Tool.

The following is a quick reference guide on how to set up inputs and outputs. It is not intended as, nor does it come close to being, an exhaustive list of the available options.

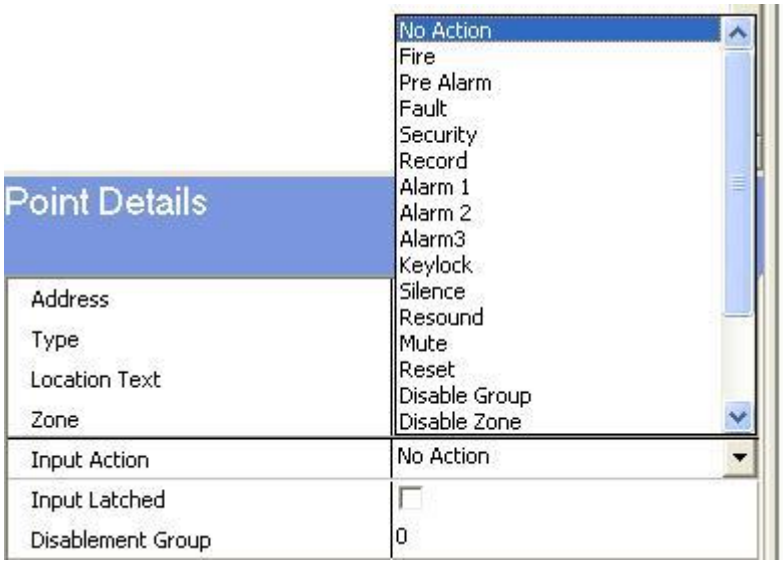
Before a card can be configured it must be added to the design like any other peripheral. Select the desired address, under the peripheral devices section, and add a card to the design.





Front View

2.1 Input Configuration



Select an input using the interface.

Select the Operation mode of the input (under “TYPE”). Several modes are available, the default mode being “Push Button”.

Give the input a descriptive location text so that it can be easily identified.

Select the required input action from the list.

Checking the “Input Latched” option will cause the panel to latch the input until such a time as the panel is reset.

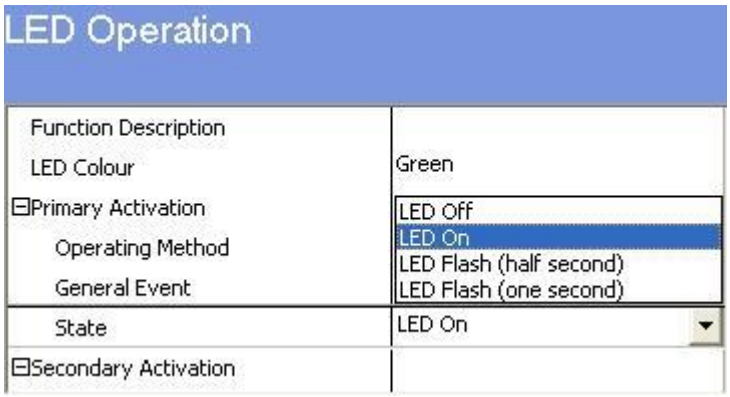
2.2 Output Configuration

Select the Output using the interface.

Give the output a descriptive location text. While this is not an actual requirement it makes the design easier to understand.

Select the Operating Method. Multiple Methods are available but for the purpose of this quick guide the General events Method will be used.

Select the desired general event that the output should follow



Select the outputs operational state

USER NOTES

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