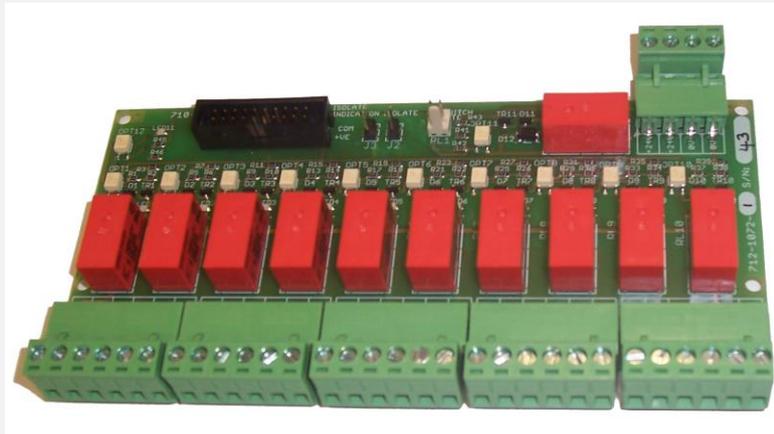


# Mimic Relay Outputs



The Mxp-052 is a peripheral relay card providing ten 30V DC, 1A programmable relay outputs.

The Mxp-052 connects directly to any of the DIL connectors of either the Network Mimic Mxp-020-100 LED Output Card or the General I/O controller Mxp-045 LED Output Card units via the supplied ribbon cable.

Up to 100 individual relay outputs can be driven by the Mxp-020-100 and up to 50 individual relay outputs can be driven by the Mxp-045 (200/150 respectively if an additional Mxs-027 100 LED Driver Card is used).

The Mxp-052 is available in both DIN Rail mounting and screw fixing mounting options.

Each output follows the cause and effect programming of the mimic unit output.

This can be either a simple zone output or can be an individually programmed output group rule utilising the full range of features of the MxPro 4 systems Dynamix zoning facilities.

## Features

- Ten Change-over Contact Outputs rated at 30V DC, 1A
- DIN Rail or Screw Fixing Options
- Separate Isolate Input (disables all outputs)
- Separate Isolate Indication Output
- Fast Instant Response

## Specifications:

### Models, Sales Order Parts:

Mxp-052	10-Way Relay Card
Mxp-052-DIN	10-Way Relay Card in DIN Rail carrier
Mxs-038-XXX	Ribbon Cable (XXX mm = 320, 550, 650)
Mxs-039-XXX	Cable, 2-Way Plug to Plug (XXX mm = 320, 550, 650)
Mxs-031-2T	Key-Switch (trapped) including cable

### Applications / Limitations:

These units can be used where many relay outputs are required for simple on/off signalling or control.

The Mimic / I/O outputs only support ON patterns.

Disablement / Isolation of the relay outputs can be achieved by a using a manual switch or programmable output rather than through the menu commands in the panel.

### Compatibility:

Can be used with any of the Mxp-020 Mimic Units or the Mxp-045 I/O units.

Item	Specification Details
Operating Temperature	-5°C to 40°C
Relative Humidity	95% non-condensing (maximum)
Dimensions (PCB)	90 x 160 x 15 (including connectors)
Dimensions (DIN)	90 x 163 x 40 (including connectors and carrier)
DIN Rail	Module mounts on 32mm G Section (EN 50035) and 35mm Top Hat (EN 50022) DIN Rail
Relay Contacts	10 Volt-free Change-over contacts
Contact Rating	30V DC, 1A Resistive
Power Supply	24VDC nominal (21-28VDC)
Current (@24VDC)	Quiescent: 0mA, Isolate Mode: 13mA, Per Relay ON: 13mA, All Relays ON: 130mA
Terminal Blocks	Pluggable. Terminals suitable for 0.35mm <sup>2</sup> to 2.5mm <sup>2</sup> cable.
LED Indications (PCB)	Relay Circuit ON (per relay)
Disable Control Inputs	Volt-free Input and mimic output drive option
Disable Indication Outputs	Open Collector output

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice

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# 1 Introduction

Ten changeover relay outputs are provided. These can be connected to the driver cards of either the Mxp-020-XXX or the MXP-045 units and each output can be independently programmed with different cause and effect rules (refer to documents 680-048 and / or 680-111 for more information).

The PC CONFIG tool is used to program the functionality of these outputs in the Mimic panel.

All Outputs can be disabled via a separate input signal.

On-board indicators are provided for each relay output (illuminated when the relay is activated),

# 2 Installation

## 2.1 Mounting the PCB

The PCB dimension and screw fixing points are shown in FIGURE 1 below.

Use the supplied M3 pillars, screws and nuts to install the PCB in an enclosure.

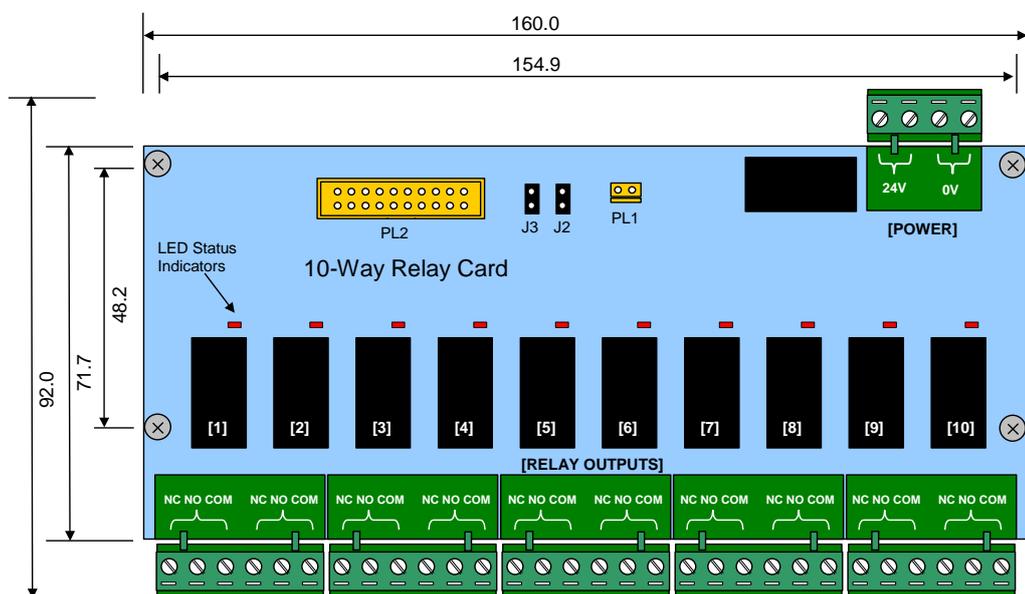


FIGURE 1

## 2.2 Mounting the DIN Rail Module

The PCB is mounted on a DIN Rail Support carrier compatible with 'G' Section 32mm DIN Rail (EN 50035) and 'Top Hat' DIN Rail (EN 50022).

## 2.3 Wiring

The unit is designed for easy wiring installation.

"Plug-in" terminal blocks are provided for all external connections to the unit.

FIGURE 1 above shows the positions for all connections to the card.

NB: Minimum / Maximum cable size for terminal block connections is limited to 0.35mm<sup>2</sup> - 2.5mm<sup>2</sup> (22-14AWG).

All electrical wiring installation work should be carried out in accordance with the code of practice applicable in the country of installation.

*To maintain electrical integrity of the SELV wiring on the DC Power and communications lines all SELV wiring should be segregated from LV mains wiring and be wired using cable with insulation suitable for the application.*

*To minimise the effects of EMC interference all data wiring circuits should be wired with a twisted pair of conductors with a cross sectional area suitable for the loading conditions.*

*In areas where cabling may come into contact with high frequency interference, such as portable radio transceivers etc. the data wiring cable should be of a twisted pair construction within a overall screen. Care should be taken to correctly terminate this screen, refer to the information below.*

### 2.3.1 DC Power

A 24V DC power supply is required.

Connect the 24V DC supply feed input to the SUPPLY +24V and 0V terminals on the interface card.

Use cables of sufficient size to ensure that the power input voltage is maintained under all supply conditions – refer to specifications section.

**Note:** The DC power supply used MUST BE designated a Safety Extra Low Voltage (SELV) supply.

**OBSERVE POLARITY OF CONNECTIONS**

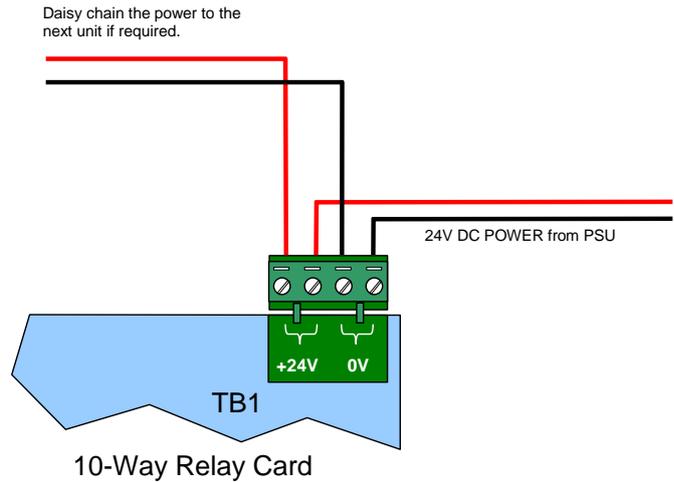


FIGURE 2

### 2.3.2 Relay Signal Drive Connection

A ribbon cable is used for the connection between Mimic I/F driver card outputs and the relay card. Connect between PL2 and the required header on the driver card.

A 320mm long cable is supplied with the kit. Alternative length ribbon cables are available – see specifications section.

The headers on the mimic driver card are not polarised. Ensure that the connector is correctly orientated and plugged onto all connection pins – see FIGURE 3 opposite.

**OBSERVE POLARITY OF CONNECTIONS**

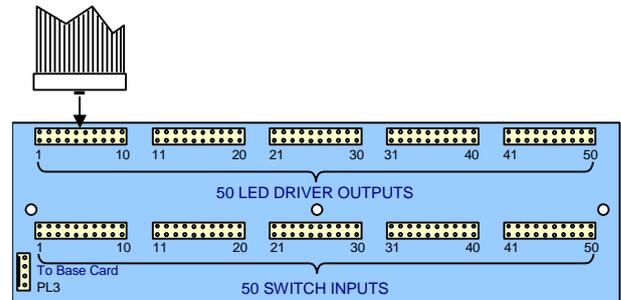


FIGURE 3 – Mxp-045 Driver Card Connections

### 2.3.3 Isolation (Disablement) Connections

#### 2.3.3.1 Inputs:

Two isolation input connections are provided on the card. All relay outputs are isolated and turned off when either of these inputs is activated.

PL1 provides connection for a volt-free relay or switch input (see FIGURE 5). Ensure that the switching element is suitable for 24VDC use with a low wetting current (not greater than 1mA).

J2 provides connection for a programmable direct drive from any one of the mimic driver card outputs. The driver output and input are polarity sensitive (no harm will be done if connected incorrectly). Ensure that the cable is connected +ve to +ve and -ve to -ve on each connector (see FIGURE 4 and FIGURE 6).

Program the cause and effect rule for the mimic driver output to turn on when the relays shall be disabled.

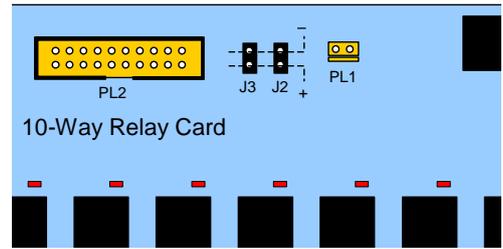


FIGURE 4

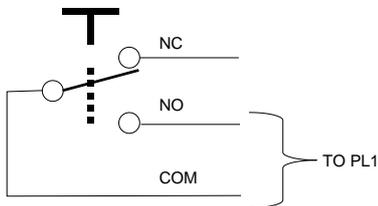


FIGURE 5

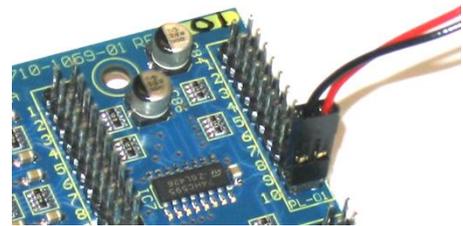


FIGURE 6

#### 2.3.3.2 Output:

One Isolation indication output is provided at connector J3. This is an open collector type output designed to connect to the General I/O switch input connections.

This can be used (if required) to indicate the manual disablement condition of these relay outputs across the network.

The driver output and mimic card input are polarity sensitive (no damage will be done if connected incorrectly). Ensure that the cable is connected +ve to +ve and -ve to -ve on each connector (see FIGURE 4 and FIGURE 7).

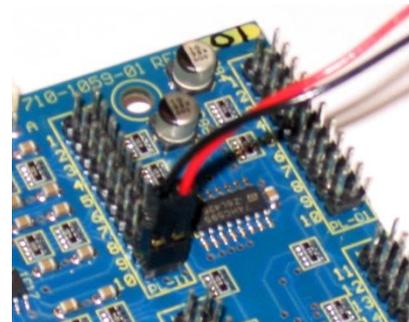


FIGURE 7

Program the input action of the General I/O input to Fault or Alarm as required.

### 2.3.4 Relay Output Connections

All relay outputs are volt free changeover contacts.

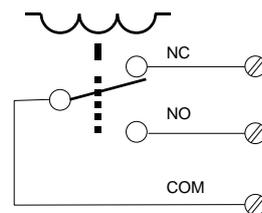


FIGURE 8

## USER NOTES

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Revision: 01A



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