J-NET-MPX-REL

**Addressable Panel Multiplexed
Zone Relay Outputs**

Interface card that provides zone in Fire/ Fault indication via a voltage free change-over relay contact for each zone in any of GFE's Analogue Addressable Fire Detection Panels.

There is also a LED indication of FIRE/ FAULT condition for each individual zone. The LED RED indicator will be ON when the relay is active. These relay outputs are not monitored.

This module operates in three different modes:

- 8 Zone Blocks - Indication of Fire for each zone.
- 4 Zone Blocks - Indication of Fire and Fault for each zone.
- System Status - Each relay output is assigned to a specific General System indication:
    Fire, Fault, Pre-Alarm, Test, Disabled, Sounders ON, Auxiliary Outputs Disabled and Sounders Disabled.

In the first 2 modes the zone block is selected using the first 6 positions of the D.I.L. Switch to set the address. Switch 7 is used to select either 8 Zone/block FIRE indication (OFF) or 4 Zone/Block FIRE & FAULT indication (ON).   By setting Switch 7 to OFF and selecting address 63 (Switches 1 to 6 are all in the ON position) the modules is set in SYSTEM STATUS mode.

When switch 7 is OFF the module address can be programmed in the range 0 to 47, providing FIRE zone indication in the range 1 to 384. If the same switch is set (ON) the address will specify a zone range from 1 to 256. Providing in this mode individual indication for each zone of FIRE and FAULT conditions.

The module requires an external 24 V DC supply which can be derived from one of the Panel's Auxiliary Supply Outputs. Alternatively the module can be powered from an external regulated 24V DC power supply.

Connection to either Juno Net or Junior Panels is via a 5 way flat cable fitted with Molex type polarised connectors. Two of these connectors are provided to enable connection of more than 1 module.
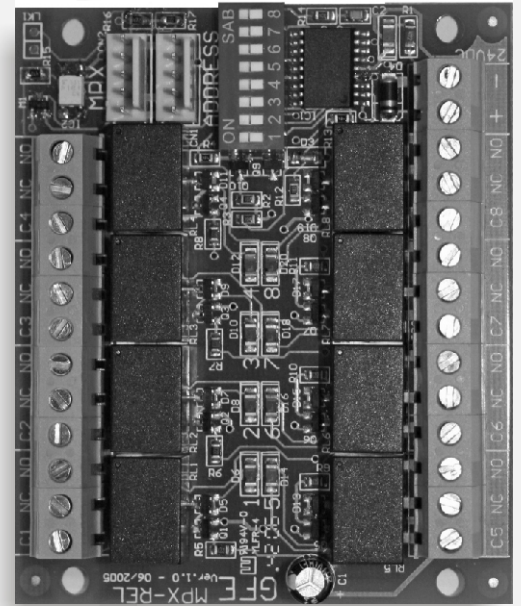
Features

- High Quality

- Compatible with GFE's range of Analogue Addressable Panels

- Easy to Install

- 8 Zone FIRE Indication

- 4 Zone FIRE & FAULT Indication

- Selectable System Status indication:

    Fire, Fault, Pre-Alarm, Test, Disabled, Sounders ON, Disablement of Sounders and Auxiliary Outputs

- FIRE indication for 384 zones in 8 Zone/Block mode

- FIRE and FAULT indication for 256 zones In 4 Zone/ Block mode

- Possibility of Multi-Module Connection

Connections

Using the 5 way flat cable provided with the J-NET-MPX-REL, connect this board either to a Juno Net or Junior Analogue Addressable Panel. If using this module in conjuction with a Juno Net panel this connector is situated on the Juno Net Main Connector Board (J-NET-CON) and is labelled ZONE LED or if connecting this module to a Junior panel connect it to the connector labelled MPX . On the J-NET-MPX-REL both MPX 5-way Molex connectors can be used as they are connected in parallel on the PCB. Supply to the J-NET-MPX-REL is normally derived from the Panel's Auxiliary Supply Output but an external regulated and stabilized 24V DC supply can also be used.

Note: Remove power to both Panel and J-NET-MPX-REL before proceeding with any connections. Re-apply power after connections are complete and verified.
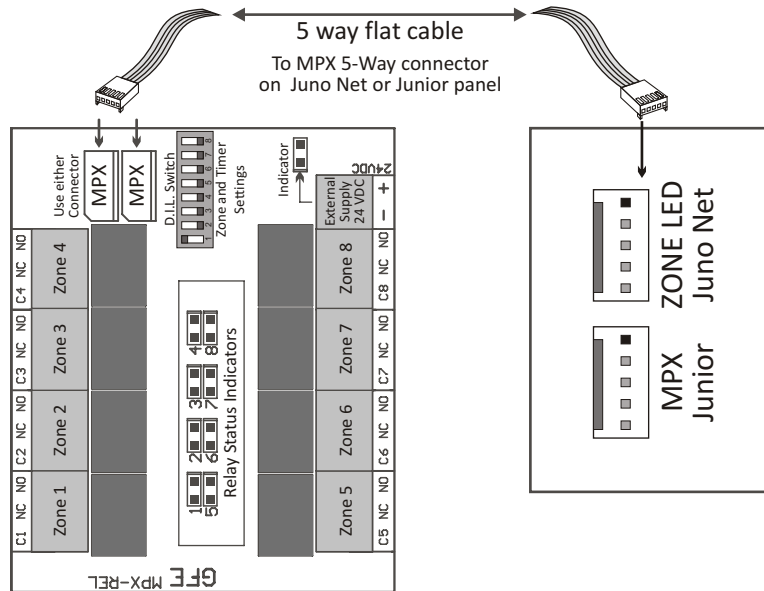
Switches - Binary Weights

SW1 - 1	SW4 - 8
SW2 - 2	SW5 - 16
SW3 - 4	SW6 - 32

Mechanical Specification

88.0 mm

72.5 mm

Switches 1-6
Selects zone block

Switch 7
Select FIRE or FIRE and FAULT

ON ━━━━━━━━ OFF

1 2 3 4 5 6 7 8
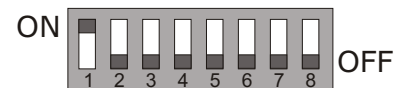
Switch 8 - Not used
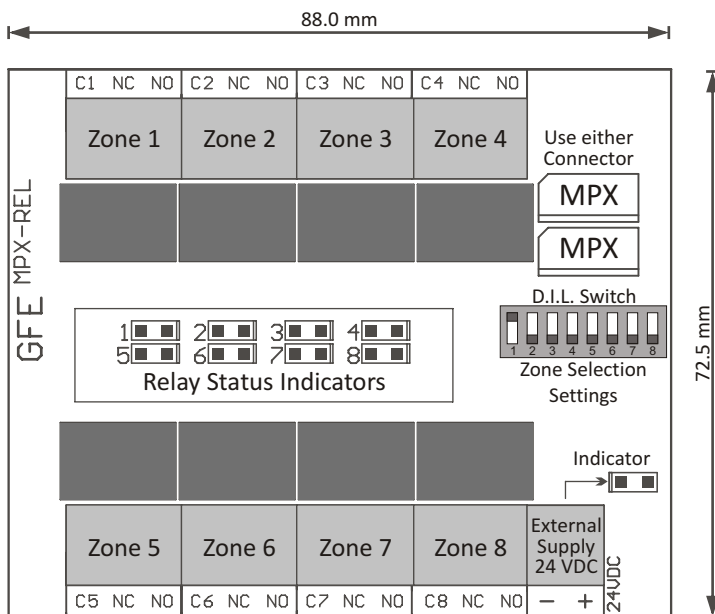
Technical Specifications

Operating Voltage	28V DC nominal
Current Consumption	
Quiescent	7 mA - No relays active
Zones in Alarm	7 mA + 15 mA per active relay
Zone Selection	D.I.L. Switch
Max. Humidity	95% RH Non-Condensing
Dimensions	0 ºC to 50 ºC
Weight	95 g

ORDER CODE	PRODUCT DESCRIPTION
J-NET-MPX-REL	Multiplexed Zone Relay Board

Zone Block Selection - 8 Zones per Block - Fire Indication Only

Block 1 Zones 1 to 8	Block 2 Zones 9 to 16	Block 3 Zones 17 to 24	Block 4 Zones 25 to 32
Block 5 Zones 33 to 40	Block 6 Zones 41 to 48	Block 7 Zones 49 to 56	Block 8 Zones 57 to 64
Block 9 Zones 65 to 72	Block 10 Zones 73 to 80	Block 11 Zones 81 to 88	Block 12 Zones 89 to 96
Block 13 Zones 97 to 104	Block 14 Zones 105 to 112	Block 15 Zones 113 to 120	Block 16 Zones 121 to 128
Block 17 Zones 129 to 136	Block 18 Zones 137 to 144	Block 19 Zones 145 to 152	Block 20 Zones 153 to 160
Block 21 Zones 161 to 168	Block22 Zones 169 to 176	Block 23 Zones 177 to 184	Block 24 Zones 185 to 192
Block 25 Zones 193 to 200	Block 26 Zones 201 to 208	Block 27 Zones 209 to 216	Block 28 Zones 217 to 224
Block 29 Zones 225 to 232	Block 30 Zones 233 to 240	Block 31 Zones 241 to 248	Block 32 Zones 249 to 256
Block 33 Zones 257 to 264	Block 34 Zones 265 to 272	Block 35 Zones 273 to 280	Block 36 Zones 281 to 288
Block 37 Zones 289 to 296	Block 38 Zones 297 to 304	Block 39 Zones 305 to 312	Block 40 Zones 313 to 320
Block 41 Zones 321 to 328	Block 42 Zones 329 to 336	Block 43 Zones 337 to 344	Block 44 Zones 345 to 352
Block 45 Zones 353 to 360	Block 46 Zones 361 to 368	Block 47 Zones 369 to 376	Block 48 Zones 377 to 384

Switches 1-6
Selects zone block

Switch 7 = OFF
Select FIRE display

ON ... OFF

Switch 8 - Not used

First Zone = Address x 8 + 1
Last Zone = Address x 8 + 8

Example

Block = 5
Address= 4

First Zone = 4 x 8 + 1 = **33**
Last Zone = 4 x 8 + 8 = **40**

Zone	Relay Fire	Zone	Relay Fire
1	1	**5**	5
2	2	**6**	6
3	3	**7**	7
4	4	**8**	8

Note: The zone associated with each relay is always dependent on the address selected using the D.I.L. switch.

C1 NC NO | C2 NC NO | C3 NC NO | C4 NC NO

| Relay 1 Zone 1 FIRE | Relay 2 Zone 2 FIRE | Relay 3 Zone 3 FIRE | Relay 4 Zone 4 FIRE |

GFE MPX-REL

Use either Connector
MPX
MPX

Relay Status Indicators

D.I.L. Switch

Zone Selection Settings

Indicator

| Relay 5 Zone 5 FIRE | Relay 6 Zone 6 FIRE | Relay 7 Zone 7 FIRE | Relay 8 Zone 8 FIRE | External Supply 24 VDC |

C5 NC NO | C6 NC NO | C7 NC NO | C8 NC NO | − +   24VDC
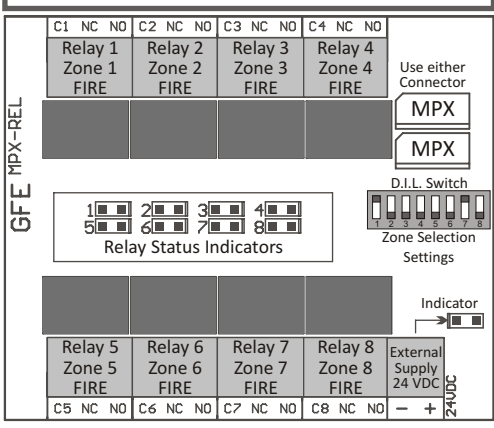
SYSTEM STATUS MODE

In order to set this module to provide indications of the general panel status set address to 63 as shown on the diagram on the left. Please note that these indications are representative of the general status of the panel and are not associated in any way to a particular device or zone.

Switches 1-6

Set ADDRESS to **63**

Switch 7 = OFF

ON ... OFF

Switch 8 - Not used

C1 NC NO | C2 NC NO | C3 NC NO | C4 NC NO

| Relay 1 FIRE | Relay 2 FAULT | Relay 3 PRE ALARM | Relay 4 TEST |

GFE MPX-REL

Use either Connector
MPX
MPX

Relay Status Indicators

D.I.L. Switch

SYSTEM STATUS Selection Settings

Indicator

| Relay 5 DISABLED | Relay 6 Sounders ON | Relay 7 Aux. O/Ps DISABLED | Relay 8 Sounders DISABLED | External Supply 24 VDC |

C5 NC NO | C6 NC NO | C7 NC NO | C8 NC NO | − +   24VDC

Zone Block Selection - 4 Zones per Block - Fire & Fault Indication

Block 1	Block 2	Block 3	Block 4
Zones 1 to 4	Zones 5 to 8	Zones 9 to 12	Zones 13 to 16
Block 5	Block 6	Block 7	Block 8
Zones 17 to 20	Zones 21 to 24	Zones 25 to 28	Zones 29 to 32
Block 9	Block 10	Block 11	Block 12
Zones 33 to 36	Zones 37 to 40	Zones 41 to 44	Zones 45 to 48
Block 13	Block 14	Block 15	Block 16
Zones 49 to 52	Zones 53 to 56	Zones 57 to 60	Zones 61 to 64
Block 17	Block 18	Block 19	Block 20
Zones 65 to 68	Zones 69 to 72	Zones 73 to 76	Zones 77 to 80
Block 21	Block22	Block 23	Block 24
Zones 81 to 84	Zones 85 to 88	Zones 89 to 92	Zones 93 to 96
Block 25	Block 26	Block 27	Block 28
Zones 97 to 100	Zones 101 to 104	Zones 105 to 108	Zones 109 to 112
Block 29	Block 30	Block 31	Block 32
Zones 113 to 116	Zones 117 to 120	Zones 121 to 124	Zones 125 to 128
Block 33	Block 34	Block 35	Block 36
Zones 129 to 132	Zones 133 to 136	Zones 137 to 140	Zones 141 to 144
Block 37	Block 38	Block 39	Block 40
Zones 145 to 148	Zones 149 to 152	Zones 153 to 156	Zones 157 to 160
Block 41	Block 42	Block 43	Block 44
Zones 161 to 164	Zones 165 to 168	Zones 169 to 172	Zones 173 to 176
Block 45	Block 46	Block 47	Block 48
Zones 177 to 180	Zones 181 to 184	Zones 185 to 188	Zones 189 to 192
Block 49	Block 50	Block 51	Block 52
Zones 193 to 196	Zones 197 to 200	Zones 201 to 204	Zones 205 to 208
Block 53	Block 54	Block 55	Block 56
Zones 209 to 212	Zones 213 to 216	Zones 217 to 220	Zones 221 to 224
Block 57	Block 58	Block 59	Block 60
Zones 225 to 228	Zones 229 to 232	Zones 233 to 236	Zones 237 to 240
Block 61	Block 62	Block 63	Block 64
Zones 241 to 244	Zones 1245 to 248	Zones 249 to 252	Zones 253 to 256

Switches 1-6
Selects zone block

Switch 7 = ON
Select FIRE and FAULT display

ON ... OFF
1 2 3 4 5 6 7 8

Switch 8 - Not used

First Zone = Address x 4 + 1
Last Zone = Address x 4 + 4

Example

Block = 5
Address = 4

First Zone = 4 x 4 + 1 = **17**
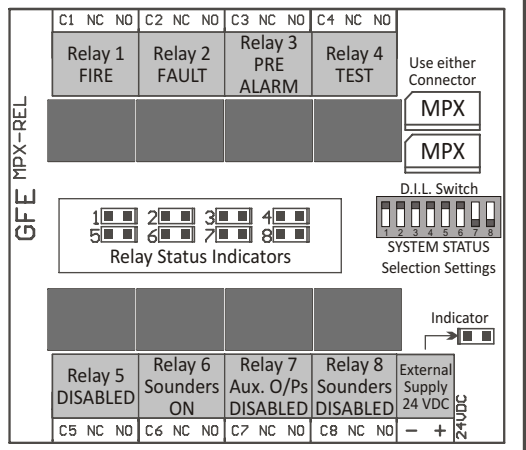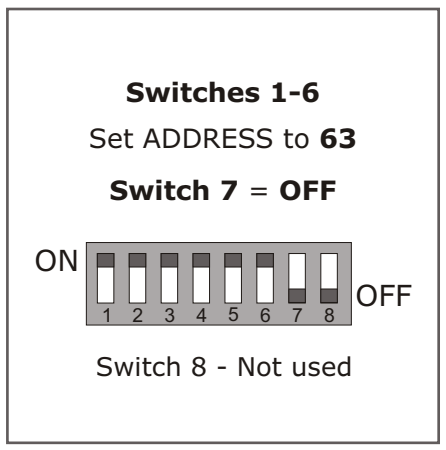Last Zone = 4 x 4 + 4 = **20**

Zone	Relay Fire	Relay Fault
1	1	5
2	2	6
3	3	7
4	4	8

Note: The zone associated with each relay is always dependent on the address selected using the D.I.L. switch.

GFE MPX-REL

C1 NC NO	C2 NC NO	C3 NC NO	C4 NC NO	
Relay 1 Zone 1 FIRE	Relay 2 Zone 2 FIRE	Relay 3 Zone 3 FIRE	Relay 4 Zone 4 FIRE	Use either Connector MPX MPX

D.I.L. Switch
1 2 3 4 5 6 7 8
Zone Selection Settings

1 2 3 4
5 6 7 8
Relay Status Indicators

Indicator

Relay 5 Zone 1 FAULT	Relay 6 Zone 2 FAULT	Relay 7 Zone 3 FAULT	Relay 8 Zone 4 FAULT	External Supply 24 VDC 24VDC
C5 NC NO	C6 NC NO	C7 NC NO	C8 NC NO	− +