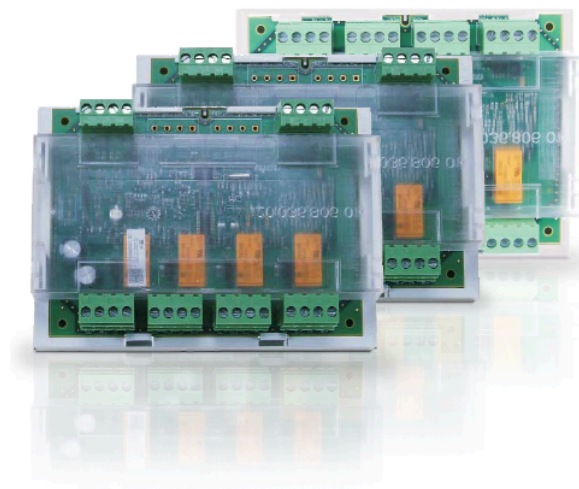# Features

- Compatible with *MX* Addressable Loop on VIGILANT *MX1* panels
- Choice of 4 inputs and 4 relay outputs, 4 monitored outputs, 4 relay outputs
- Compact DIN rail mounting saves space
- Built-in loop short-circuit isolator
- Two-way IR communication with 850EMT saves commissioning time
- AS ISO 7240.17 Listing Short Circuit MX Loop Isolator
- AS ISO 7240.18 Listing Input/Output Modules

**Figure 1: Qxx850**



The *MX* Quad Ancillary Modules form a versatile new range of multiple input and output modules for use with *MX TECHNOLOGY* systems [1].

- **QIO850** - Quad Input / Output module – provides four monitored inputs and four relay outputs
- **QMO850** - Quad Monitored Output module – provides four monitored outputs
- **QRM850** - Quad Relay Output Module – provides four relay outputs

The modules are designed for compactness and ease of installation, and are ideal for applications such as:

- AS 1668 fan control interfaces,
- Plant or security outputs, or
- When large numbers of inputs and/or outputs are required.

Features common to the Quad Modules are:

- Built-in *MX* loop short-circuit isolator with fault indication at the *MX1* CIE1 when operated
- IR link for programming by 850EMT
- Selectable interrupt operation to speed up response

- Enclosed in protective plastic housing, with an optional IP66 enclosure available for applications in challenging environments
- Top-hat DIN rail mounting
- LED indication of each output state
- 24V/48V link selectable Auxillary supply for outputs
- Supervision of Auxillary supply for presence
- Fault indication of stuck relay contacts - not operating when switched on.
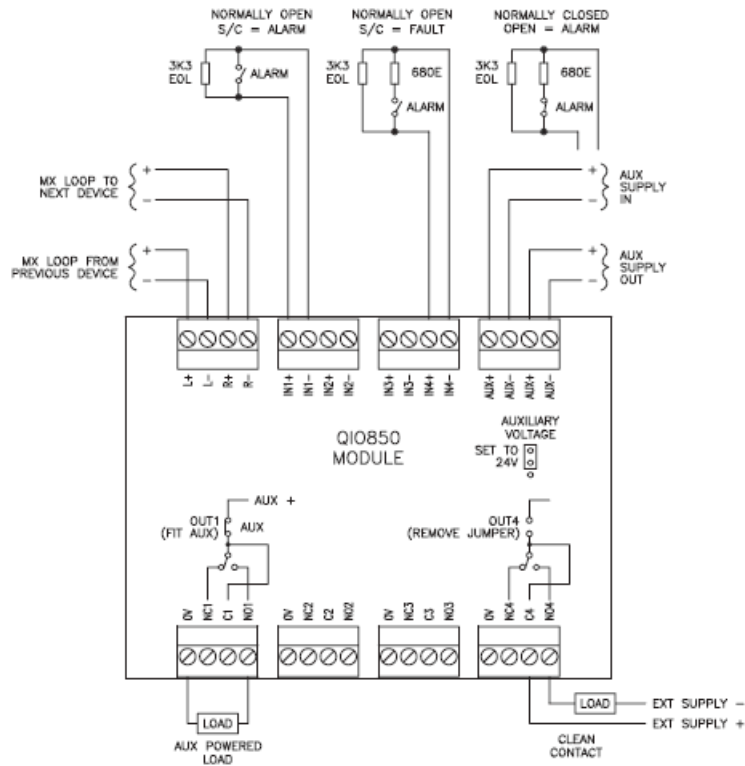
# Specifications

**Table 1: Specifications**

| | QIO850 | QMO850 | QRM850 |
|---|---|---|---|
| MX Loop Voltage | 20-40Vdc | | |
| Quiescent Current | 0.58 mA | 1.2 mA | 0.58 mA |
| Alarm Current | 3.6 mA | 4.2 mA | 3.6 mA |
| Relay Output | 2A@30 Vdc | 2A@30 Vdc | 2A@30 Vdc |
| Aux. Voltage Input | 20-55Vdc | | |
| Input States | Short cct | - | - |
| | Alarm | | |
| | Normal | | |
| | Open cct | | |
| Input EOL | 3k3 Ohm | - | - |
| Dimensions (HWD) | 134 x 103 x 49 mm | | |
| Weight | 232g | | |
| Ambient Temp. | −25°C to +70°C | | |
| Storage Temp. | −40°C to +80°C | | |
| Relative Humidity | 10% to 95% (n/cond.) | | |
| ActivFire Listed | afp-3174 | afp-3177 | afp-3175 |
| FPANZ Listed | VF/669 | VF/668 | VF/670 |
| Standards | AS ISO 7240.17:2021 | AS ISO 7240.17:2021 | AS ISO 7240.17:2021 |
| | AS ISO 7240.18:2018 | AS ISO 7240.18:2018 | AS ISO 7240.18:2018 |
| **Part Numbers** | | | |
| Modules | 555.800.071 QIO850 Quad Input/ Output Module | 555.800.070 QMO850 Quad Monitored Output Module | 555.800.073 QRM850 Quad Relay Module |
| IP66 Enclosure | 557.201.410 | 557.201.410 | 557.201.410 |

| Callout | Description |
|---|---|
| 1 | The MX Quad Ancillary Modules are not supported by the MX4428 or 4100ESi CIE |

# Wiring

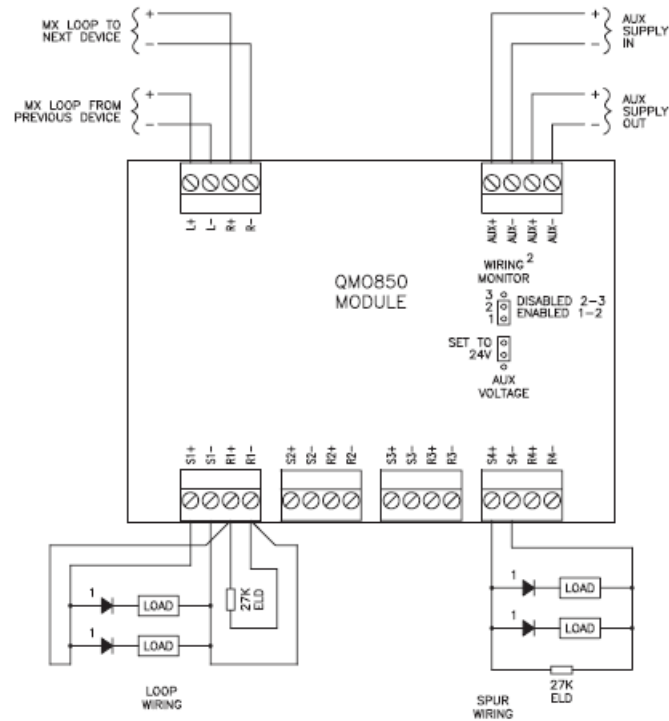**Figure 2: QIO850 Quad Input/Output Module - Terminals**



> ⓘ **Note:**
> 1. Max. input cable resistance 50 Ohm.
> 2. AUX supply 24Vdc nominal to suit loads.
> 3. AUX supply fault 18Vdc +/-1V.

Output Options:

1. Clean contact - remove output jumper - use C, NO, NC relay as required.
2. Switched AUX O/P - fit output jumper to AUX position. Use NO for switched AUX+ output. Wire to load and back to 0V (AUX-).

**Figure 3: QMO850 Quad Monitored Output Module**



ℹ️ **Note:**

1. Load requires series diode if not fitted internally.
2. Fit wiring monitor jumper to enabled (1-2) to enable supervision of wiring resistance to AUX supply. Fit to disabled (2-3) to disable.
3. AUX supply 24Vdc nominal to suit loads.
4. AUX supply fault 18V +/-1V.

**Figure 4: QRM850 Quad Monitored Output Module**



ⓘ **Note:**

1. AUX supply 24Vdc nominal to suit loads.
2. AUX supply fault 18Vdc +/-1V.

Output Options:

1. Clean contact - remove output jumper - use C, NO, NC relay as required.
2. Switched AUX O/P - fit output jumper to AUX position. Use NO for switched AUX+ output. Wire to load and back to 0V (AUX-).
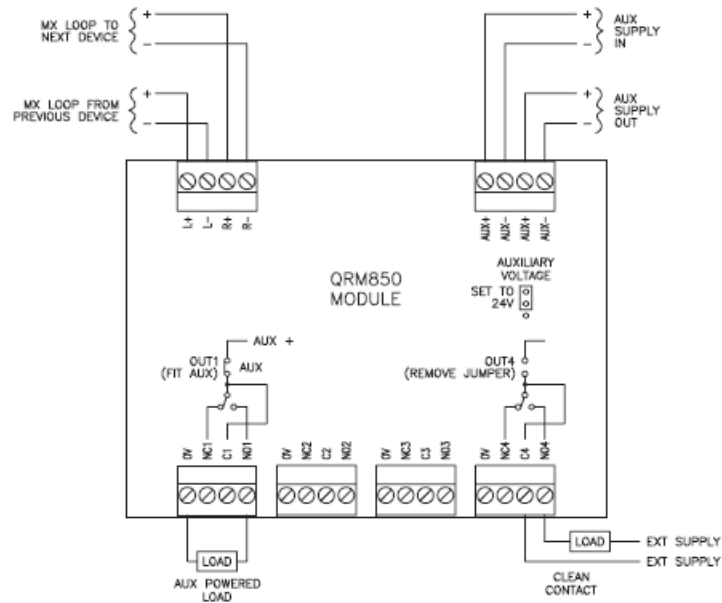
## QIO850 Features:

- Four change over relay outputs and four monitored inputs each individually programmable for a wide range of applications
- Inputs can monitor normally open or normally closed clean contacts
- Inputs monitored for short/open circuit fault
- Interrupt generation on alarm programmable
- Relay contacts are monitored for "output stuck" conditions
- Outputs link selectable change- over relay contacts or switched AUX supply

## QIO850 Applications:

- Damper control
- Sprinkler monitoring
- Interface to conventional panel
- Interface to medical gas panels / gas detection systems
- Interface to extinguishing systems / 3rd party detectors
- Local isolation input and control

## QMO850 Features:

- Four polarity reversal outputs switching AUX supply
- Supervised for short and open faults
- Class A or Class B wiring for versatility

## QMO850 Applications:

- Conventional sounder monitor and control
- AUX relay monitor and control
- Extinguishing system outputs

## QRM850 Features:

- Four change over relay outputs each individually programmable for a wide range of applications
- Outputs link selectable change- over relay contacts or switched AUX supply
- The relay contacts are monitored for "output stuck" conditions

## QRM850 Applications:

- A/C control
- Plant control
- Smoke control systems
- Lift control

# Contact information

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VIGILANT, a respected regional brand of Johnson Controls, is a technology leader in the Australian and New Zealand fire detection markets with AS and NZS product approvals. The VIGILANT product line includes a comprehensive range of MX TECHNOLOGY fire detection products and the market-leading QE20/QE90 voice evacuation systems. VIGILANT product is widely supported throughout Australia and New Zealand by a network of installation companies, service companies and distributors.