NOTIFIER®
by Honeywell

Input/Output Modules
Data Sheet





The wide range of input and output modules available from NOTIFIER delivers exceptional flexibility to a NOTIFIER fire detection and alarm system. Using these modules enables integration with a host of other building management and emergency systems, including access control systems, lifts, fire shutters and emergency lighting.

Features

- Analogue addressable communications
- Built-in type identification automatically identifies these devices to the control panel
- Stable communication technique with high noise immunity
- Rotary DECADE 01 to 99 or 01 to 159 (for Opal digital protocol modules) address switches
- Common mounting options including Surface Mount, Panel Mount and DIN Rail Mount.
- Tri-colour LED's
- Powered directly by 2-wire loop. No additional power required
- Plug-in terminal connections for ease of field wiring
- Approved to CEA GEI 1-082 AND CEA GEI 1-084
- CPD approval to EN54-17 and EN54-18, LPCB and VdS

Installation

Notifier modules can be mounted either surface, panel mounted in other equipment housings or DIN rail mounted in other equipment housings.

Surface mounting is achieved by using the M200E-SMB surface mount box which accepts a single module. This box has a frosted plastic lid with viewing windows for the product identification label, LED's and address switches.

This document is not intended to be used for installation purposes. Every care has been taken in the preparation of this document but no liability can be accepted for the use of the information therein. Design features may be changed or amended without prior notice.
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ISO9001
Design, Manufacture and Supply to Quality Management Systems Certified to ISO9001:1994

M710 Single input module

The M700 series modules are designed for use with any NOTIFIER protocol fire alarm control panel and include selectable loop isolation in every device.

The M710 module monitors a single input device circuit of normally open dry contact alarm activation devices.

These modules use one of 99 available module addresses on a loop and respond to regular polls from the control panel reporting its type and the status (open/normal/short) of its supervised device circuit.



Specifications

M710 Single input module

Mechanical Specification

- Dimensions:
  - Height: 90 mm
  - Width: 92 mm
  - Depth: 23 mm
- Weight: 90g

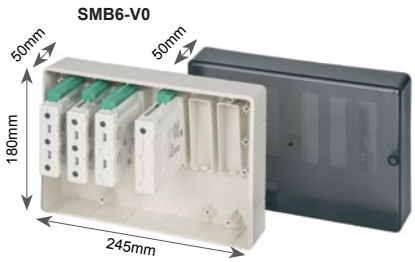
Electrical Specification

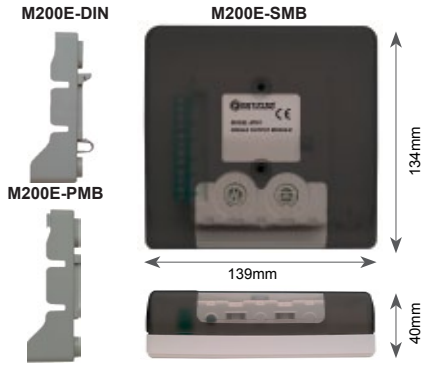
- Current Consumption
  - Without communication: 310 µA @ 24 VDC;
  - Communication every 5 sec. with LED blink enabled.: 510 µA @ 24 VDC
  - Maximum Alarm Current: 5 mA @ 24 VDC (per LED with LED enabled)
- Operating Voltage: 15 to 30 VDC peak

Environmental Specifications

- Operating temperature: -20°C to +60°C
- Relative humidity: 0% to 95%, non-condensing







Non- Addressable Zone Monitor Module M710-CZR

The M710-CZR non-addressable zone monitor module allows a zone of non-addressable detectors to communicate with a Notifier analogue addressable system. As a result existing nonaddressable loops can be integrated into a Notifier addressable system



The module monitors a zone of two-wire non-addressable smoke detectors. Each M710-CZR uses one of 99 available module addresses on a loop. The non-addressable zone can be powered from the analogue communication line or from an external power supply. Where the non-addressable zone is powered from an external power supply, the communication line is fully isolated from the nonaddressable zone and from the power supply.

This M710-CZR non-addressable Zone Monitor module fits into M200E-SMB, M200E-DIN or M200E-PMB. These may then be installed in a 19" Rack Assembly using Notifier 19" Rack mounting adapters.

Specifications

Non- Addressable Zone Monitor Module M710-CZR

Mechanical Specification

- Dimensions:
  - Height: 93 mm
  - Width: 83 mm
  - Depth: 23 mm
- Weight: 110 g

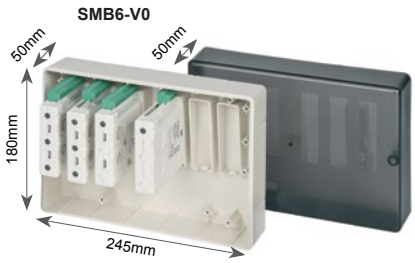
Electrical Specification

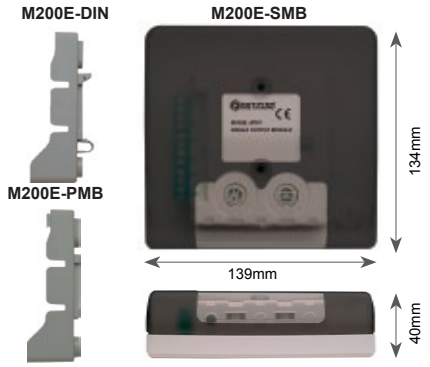
- Operating Voltage Range: 18 to 28.5Vdc
- Max. Standby Current: 288µA maximum (conventional zone connected to external supply)
- LED Current
  - Red: 2.2µA @ 24Vdc
  - Green: 6.6µA @ 24Vdc
  - Yellow: 8.8µA @ 24Vdc
- End of Line Resistor Value: 3.9k

Environmental Specifications

- Temperature Range: -20°C to +60°C
- Humidity: 5% to 95% relative humidity (non-condensing)







M701 Single output module



The M700 series modules are designed for use with any NOTIFIER protocol fire alarm control panel and include selectable loop isolation in every device.

The M701 control module provides a monitored single output circuit for use with polarised loads (sounder circuit) which requires a suitable power source (7Vdc - 30Vdc) for the connected load. Alternatively the same device may be placed in to an unsupervised mode which can then be used to control any switched load up to 2A @ 30Vdc.

In addition the M701-240 and the M701-240-DIN provide two (1 x N.O. 1 x N.C.) 250Vac (nominal 230Vac), 5Amp contact outputs. The M701-240 is provided complete with a surface mounting back box and the M701-240-DIN is supplied in a DIN rail mounting package.

These modules use one of 99 available module addresses on a loop and respond to regular polls from the control panel reporting its type and the status (open/normal/short) of its supervised device circuit.

Specifications

M701 single output module

Mechanical Specification

- Dimensions:
  - Height: 90 mm
  - Width: 92 mm
  - Depth: 23 mm
- Weight:
  - M701 102g
  - M701-240 200g
  - M701-240-DIN 195g

Electrical Specification

- Current Consumption (Without communication)
  - M701 310 µA @ 24 VDC
  - M701-240 & M701-240-DIN 275 µA @ 24 VDC
- Current Consumption (Communication every 5 sec. with LED blink enabled)
  - M701 510 µA @ 24 VDC
  - M701-240 & M701-240-DIN 445 µA @ 24 VDC
- Maximum Alarm Current: 5 mA @ 24 VDC (per LED with LED enabled)
- Operating Voltage: 15 to 30 VDC peak

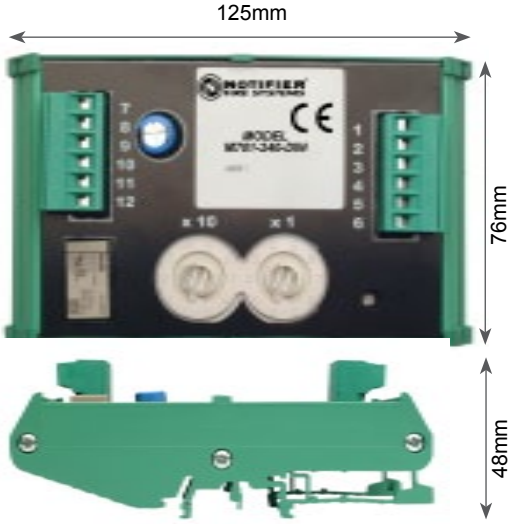
Environmental Specifications

- Operating temperature -20°C to +60°C
- Relative humidity: 0% to 95%, non-condensing

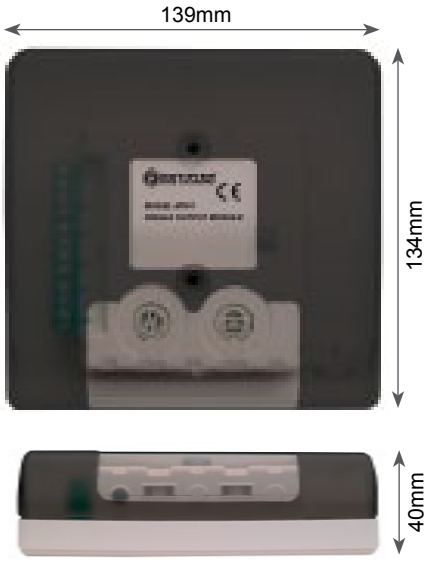
M701



M701-240-DIN



M701-240



M720 Dual Input Module

The M700 series modules are designed for use with any NOTIFIER protocol fire alarm control panel and include selectable loop isolation in every device.

The M720 dual monitor module provides two supervised input device circuits of normally open dry contact alarm activation devices.

The M720 module uses two addresses of 99 available module addresses on a loop and responds to regular polls from the control panel reporting its type and the status (open/normal/short) of their supervised device circuits.



Specifications

M720 Dual Input Module

Mechanical Specification

- Dimensions:
  - Height: 90 mm
  - Width: 92 mm
  - Depth: 23 mm
- Weight: 90g

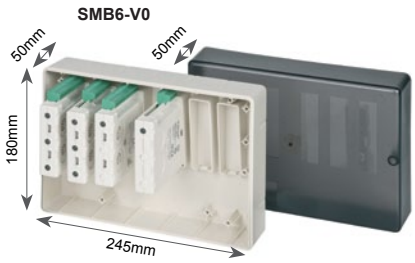
Electrical Specification

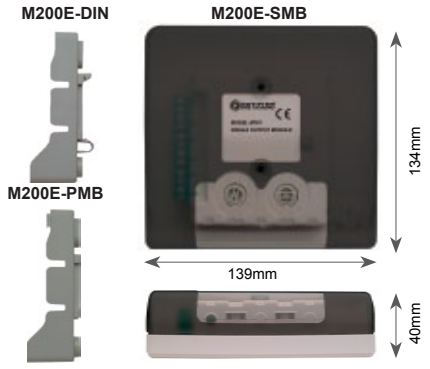
- Current Consumption
  - Without communication: 340 µA @ 24 VDC;
  - Communication every 5 sec. with LED blink enabled.: 600 µA @ 24 VDC
  - Maximum Alarm Current: 5 mA @ 24 VDC (per LED with LED enabled)
- Operating Voltage: 15 to 30 VDC peak

Environmental Specifications

- Operating temperature: -20°C to +60°C
- Relative humidity: 0% to 95%, non-condensing







M721 Dual Input Module with Output

The M700 series modules are designed for use with any NOTIFIER protocol fire alarm control panel and include selectable loop isolation in every device.

The M721 dual input, single relay output module, as well as providing two supervised inputs also provides a single change over relay output rated at 2A @30Vdc.

The M721 uses three addresses of 99 available module addresses on a loop and responds to regular polls from the control panel reporting its type and the status (open/normal/short) of their supervised device circuits.



Specifications

M721 Dual Input Module with Output

Mechanical Specification

- Dimensions:
  - Height: 90 mm
  - Width: 92 mm
  - Depth: 23 mm
- Weight: 102g

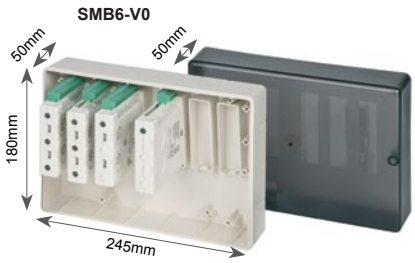
Electrical Specification

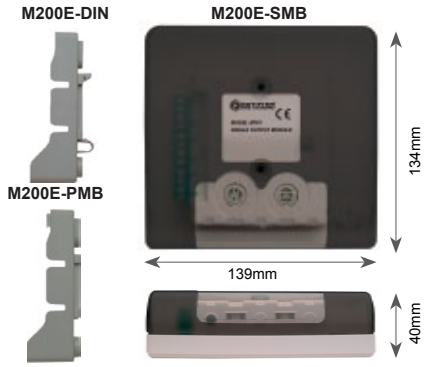
- Current Consumption
  - Without communication: 340 µA @ 24 VDC;
  - Communication every 5 sec. with LED blink enabled.: 660 µA @ 24 VDC
  - Maximum Alarm Current: 5 mA @ 24 VDC (per LED with LED enabled)
- Operating Voltage: 15 to 30 VDC peak

Environmental Specifications

- Operating temperature: -20°C to +60°C
- Relative humidity: 0% to 95%, non-condensing







NFX-MM1M Mini Module

The NFX-MM1M is an addressable input module. It will interface with contact devices such as security contacts, sprinkler flow switches and call points. It monitors the cable in the same way as a non-addressable zone, using an end of line resistor on a two wire circuit.



In addition to transmitting the supervised state of the monitored device (normal, open, or short), the full analogue supervision measurement is sent back to the panel.

The compact size allows it to fit inside devices or junction boxes behind devices. Its size and light weight allows it to be installed without the need to be rigidly mounted.

Specifications

NFX-MM1M Mini Module

Mechanical Specification

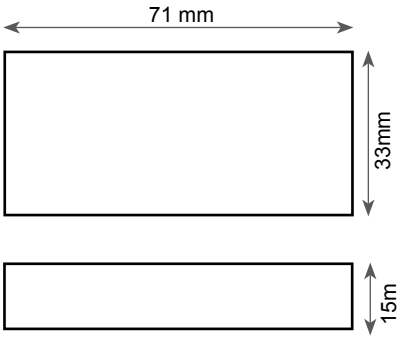
- Dimensions:
  - Height: 33 mm
  - Width: 71mm
  - Depth: 15 mm
- Weight: 57 g

Electrical Specification

- Operating Voltage: 15 to 32 VDC
- Supervisory Loop Current (normal) 87-114 uA
- Standby Current for comm line 7 V
- Nominal Standby Current 110 uA
- End-of-Line Resistance 47 kohm

Environmental Specifications

- Operating temperature 0°C to +49°C
- Relative humidity: 10% to 93%, non-condensing



10 Way Output Module CMX-10RM



Each output is individually addressed and controlled by the control equipment. This provides a cost effective, compact solution for installations requiring multiple switching and / or monitoring at a single location.

Each output consists of a form C (change over) relay contact providing both normally open and normally closed contacts rated 2A at 30Vdc.

Each module card utilises up to 10 consecutive addresses with the base address being set by DIP switch although any of the 10 addresses may be individually disabled allowing the use of this address by other modules on that loop.

Specifications

10 Way Output Module CMX-10RM

Mechanical Specification

- Dimensions:

Height:	233 mm
Width:	70 mm
Depth:	13 mm

The modules are supplied as a P.C.B. allowing installation in to other equipment housings such as control cabinets. 5 x 3.5mm mounting holes provide suitable secure mounting for the P.C.B's. Each module occupies a single Notifier Loop Module address with the first address being set by DIP switch SW2 and subsequent address being base address + n up to a maximium of 10. Individual modules may be disabled via a second DIP switch SW1 such that any module address in the range can be used for other module addresses on the loop.

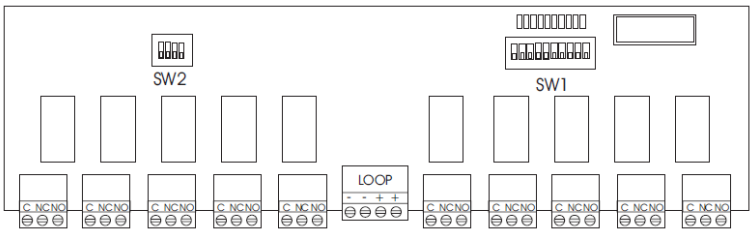
Electrical Specification

- Current Consumption
  1.7mA with communication and LED blink enabled
- LED Current, 5mA @ 24Vdc (LED on) per module

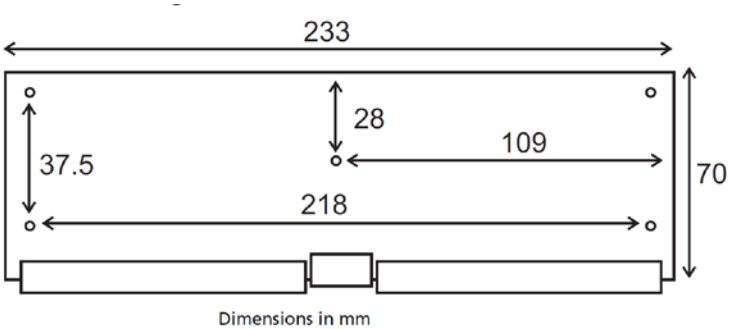
Environmental Specifications

- Operating temperature -10°C to +55°C
- Relative humidity: 10% to 93%, non-condensing

Connection Detail



Mounting Detail



10 Way Input Module MMX-10M



Each input is individually addressed and controlled by the control equipment. This provides a cost effective, compact solution for installations requiring multiple switching and / or monitoring at a single location.

Inputs may be configured to monitor for open circuit, short circuit and active (fire) conditions.

Each module card utilises up to 10 consecutive addresses with the base address being set by DIP switch although any of the 10 addresses may be individually disabled allowing the use of this address by other modules on that loop.

Specifications

10 Way Input Module MMX-10M

Mechanical Specification

- Dimensions:

Height:	233 mm
Width:	70 mm
Depth:	13 mm

The modules are supplied as a P.C.B. allowing installation in to other equipment housings such as control cabinets. 5 x 3.5mm mounting holes provide suitable secure mounting for the P.C.B's. Each module occupies a single Notifier Loop Module address with the first address being set by DIP switch SW2 and subsequent address being base address + n up to a maximium of 10. Individual modules may be disabled via a second DIP switch SW1 such that any module address in the range can be used for other module addresses on the loop.

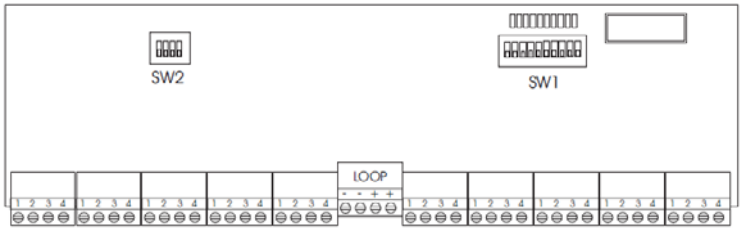
Electrical Specification

- Current Consumption
  1.7mA with communication and LED blink enabled
- LED Current, 5mA @ 24Vdc (LED on) per module

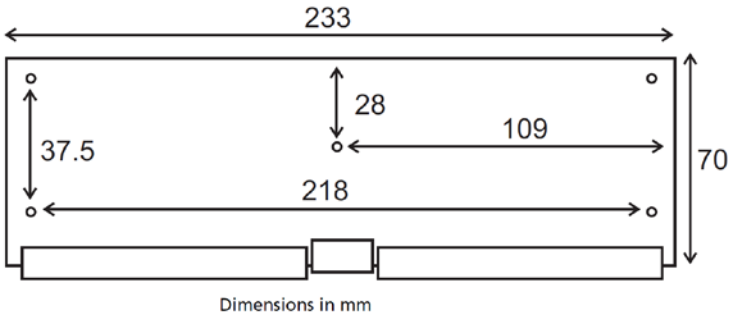
Environmental Specifications

- Operating temperature -10°C to +55°C
- Relative humidity: 10% to 93%, non-condensing

Connection Detail



Mounting Detail



Dimensions in mm

5 Way Input and 5 Way Output Module MCX-55



Each input and output are individually addressed and controlled by the control equipment and provide a cost effective, compact solution for installations requiring multiple switching and / or monitoring at a single location.

Inputs may be configured to monitor for open circuit, short circuit and active (fire) conditions. Each output consists of a form C (change over) relay contact providing both normally open and normally closed contacts rated 2A at 30Vdc.

Each module card utilises up to 10 consecutive addresses with the base address being set by DIP switch although any of the 10 addresses may be individually disabled allowing the use of this address by other modules on that loop.

Specifications

MCX-55 5 Way Input and 5 Way Output Module

Mechanical Specification

- Dimensions:

Height:	233 mm
Width:	70 mm
Depth:	13 mm

The modules are supplied as a P.C.B. allowing installation in to other equipment housings such as control cabinets. 5 x 3.5mm mounting holes provide suitable secure mounting for the P.C.B's as indicated overleaf. Each module occupies a single Notifier Loop Module address with the first address being set by DIP switch SW2 and subsequent address being base address + n up to a maximium of 10. Individual modules may be disabled via a second DIP switch SW1 such that any module address in the range can be used for other module addresses on the loop.

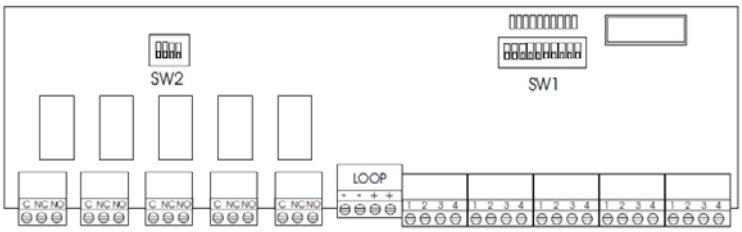
Electrical Specification

- Current Consumption
  1.7mA with communication and LED blink enabled
- LED Current, 5mA @ 24Vdc (LED on) per module

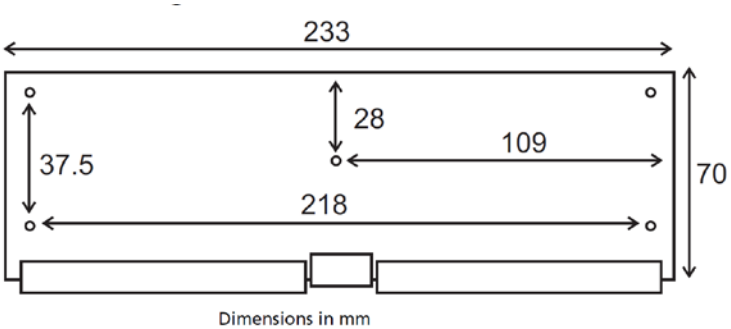
Environmental Specifications

- Operating temperature -10°C to +55°C
- Relative humidity: 10% to 93%, non-condensing

Connection Detail



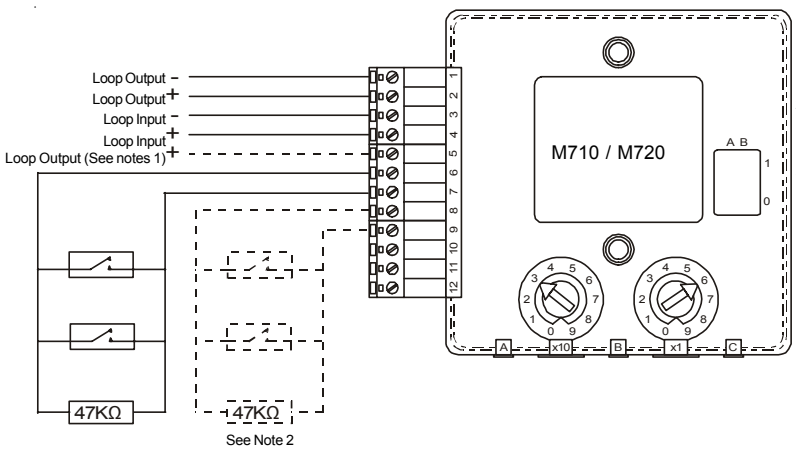
Mounting Detail



Dimensions in mm

Connection Detail

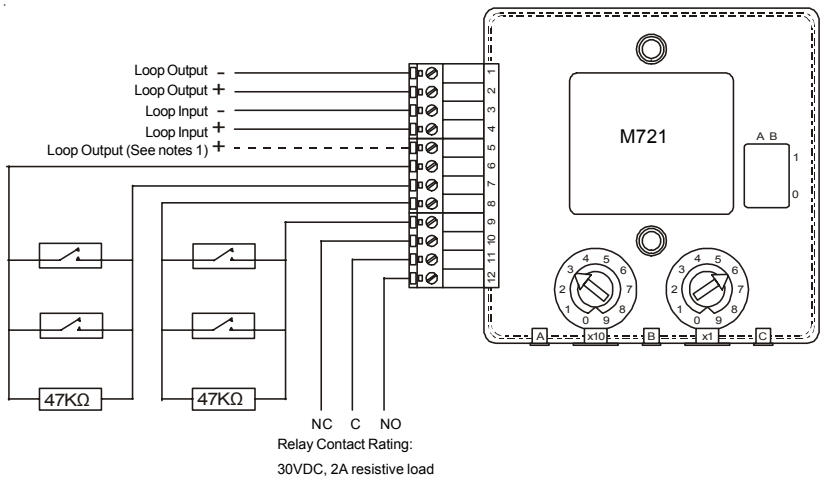
M710 / M720 Connection Detail



Notes:

1 If short circuit isolation is not required, loop output+ should be wired to terminal 5 and not 2. Terminal 5 is internally connected to terminal 4.
2 The dashed line circuit connected to terminals 8 and 9 should only be used with the M720. There are no connections to these terminals on the M710.
3 Provided the control panel is compatible, short circuit monitoring of the input circuit may be possible. An 18K Ohm resistor should be wired in series with each device switch being monitored.

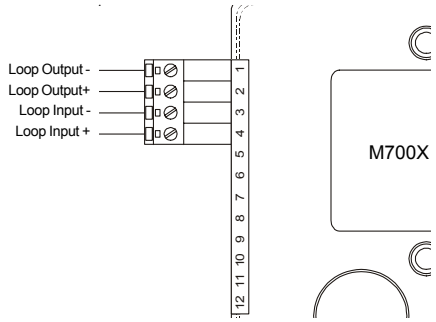
M721 Connection Detail



Notes:

1 If short circuit isolation is not required, loop output+ should be wired to terminal 5 and not 2. Terminal 5 is internally connected to terminal 4.
2 Provided the control panel is compatible, short circuit fault monitoring of the input circuit may be possible. An 18K Ohm resistor should be wired in series with each device switch being monitored.

M700X Connection Detail



Connection Detail

M701 Supervised Connection Detail

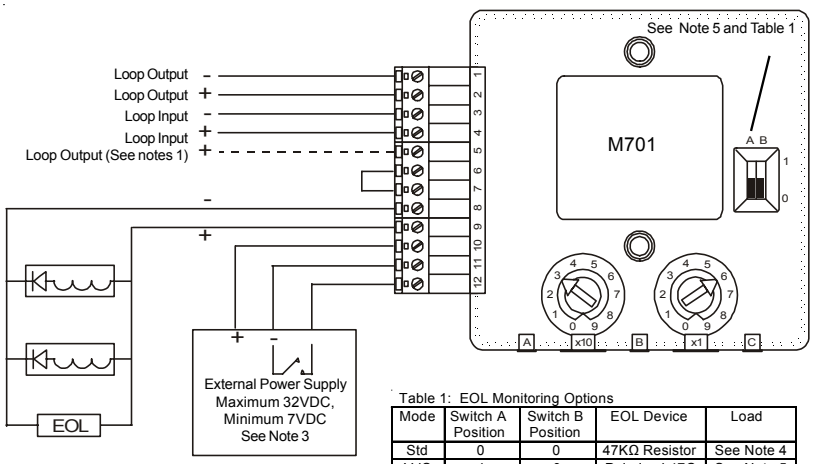


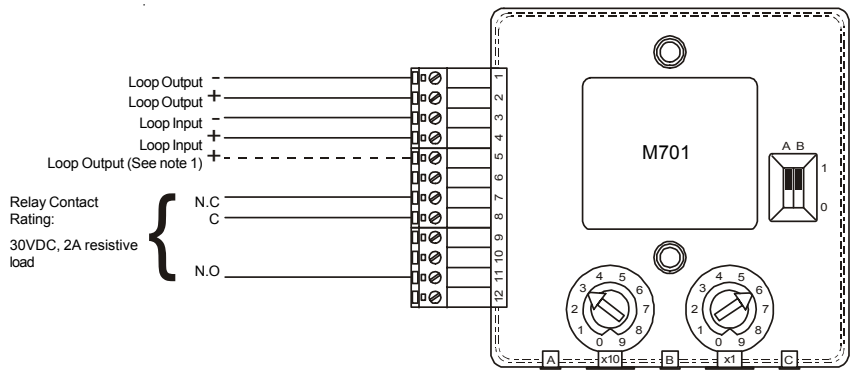
Table 1: EOL Monitoring Options

Mode	Switch A Position	Switch B Position	EOL Device	Load
Std	0	0	47KΩ Resistor	See Note 4
VdS	1	0	Polarised 47Ω	See Note 5
RLY	N/A	1	Unsupervised	

Notes:

1 If short circuit isolation is not required, loop output+ should be wired to terminal 5 and not 2. Terminal 5 is internally connected to terminal 4.
2 To enable output circuit supervision, the link supplied must be fitted across terminals 6 and 7, and the load must be polarised.
3 In supervised mode, the module monitors the power supply voltage across terminals 10 and 11 to ensure it does not drop below 7V, and also monitors for a switched negative fault signal from the power supply to terminal 12 (optional). If a fault is seen the yellow LED will blink, and a fault may be indicated at the panel. The use of this fault warning is dependant upon panel software, please consult Notifier Technical support.
4 Up to 1.5A load can be driven subject to the supply capability, total cable resistance and minimum voltage required by the load.
5 An alternative end of line monitoring option is available for VdS 2489 requirements - see table 1. Maximum cable series resistance is 10R so max. load current is limited by permissible voltage drop along the cable, min. PSU voltage and min. load voltage requirement.
eg: Min PSU voltage = 21V, min load voltage = 18V, max. series resistance = 10R, therefore max. current = 300mA [(21-18)/10 Amps.]

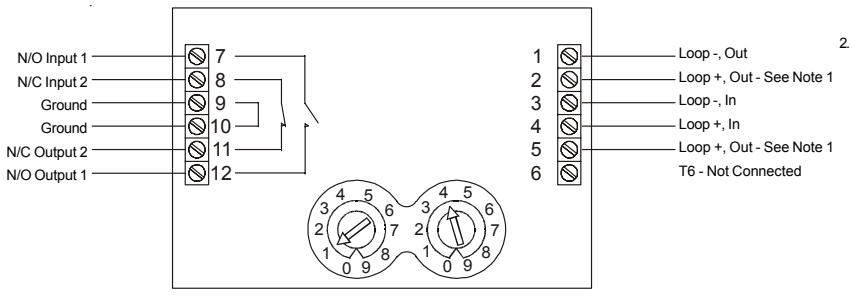
M701 Un-Supervised Connection Detail



Notes:

1 If short circuit isolation is not required, loop output+ should be wired to terminal 5 and not 2. Terminal 5 is internally connected to terminal 4.

M701-240 / M701-240-DIN Connection Detail



Notes:

1. If short circuit isolation is not required, then the loop output should be wired to terminal 5 rather than terminal 2. Terminal 5 is internally connected directly to terminal 4.
2. In order to meet the requirements of European Safety Standards, ensure that all cables carrying voltages in excess of 48V (Live and Neutral) are suitably fused.

Product Range at a Glance

		Part Number
	Single output module	M701
	Single input unit	M710
	Dual input unit	M720
	Dual input, single output module	M721
	Single 230Vac output unit inc. surface mount box	M701-240
	Single 230Vac output unit inc. DIN rail mounting enclosure	M701-240-DIN
	Surface Mount Box	M200E-SMB
	Surface Mount Box for 6 M7xx series modules	SMB6-V0
	Panel Mount Bracket	M200E-PMB
	DIN rail mounting clip	M200E-DIN
	Addressable micro monitor (input) module - Opal compatible without isolator	NFX-MM1M
	10 Way Relay Output Module	CMX-10RM
	10 Way Input Module	MMX-10M
	5 Way Input & 5 Way Relay Output Module	MCX-55

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