

The **Micha** 4-Channel Relay Module is designed to be connected to the Expansion Port of the MSR_x and other products with an expansion port. It can provide an additional four volt-free changeover relay contacts, the functions of which can be set by the end user via the host controller's interface.

Using multiple Relay modules:

It is essential that the Module Address selection switch on the side of each module being used is set to the corresponding Module Number on the selection screen. Multiple Relay Modules with unique address numbers may be connected to the Expansion Port, but do not have to be physically connected in numerical order.

Currently it is possible to fit a maximum of four of this type of module to the same expansion port - numbered 1 to 4 - giving a possible 16 auxiliary relay contacts. Note that it may be necessary to fit an additional power supply module, depending on the maximum number of relays that may operate simultaneously. See the specifications at the end of this document.

Note: The module address applies only to modules of this type. For example, it is permissible to have an Auxiliary Relay Module configured to Address 1 and a 4-20mA Module set to Address 1.

LED's:

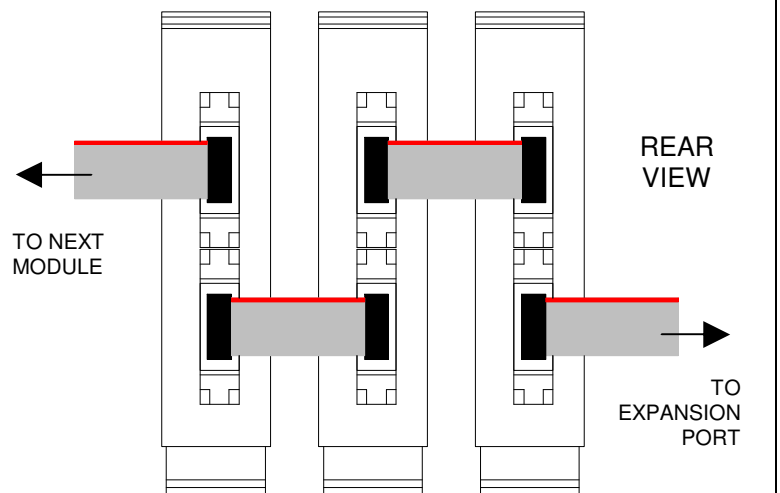
When connected to the expansion port, the green LED (Power) will pulse indicating communication with the host controller. When a relay is energised, the relevant red LED will be illuminated continuously.

Fitting and Connection of Modules

The modules clip onto standard 35mm symmetrical and 32mm asymmetrical din-rail. Each unit is supplied with 10-way IDC ribbon cable assemblies for connection to the controller Expansion Port and to an adjacent Din-rail unit.

Before fitting to the Din-rail, the module address should be set using the rotary switch on the side of the module. No two modules of the same type may have the same address.

Note: all ribbon-cable connections should be made before the controller is powered up. Cables can be plugged into either upper or lower connectors.





Setup:

Navigate to Menu E Screen 0: "Set Exp Module: Relay Outputs >" and carry out the following procedure:

Display	Step	Description
Rly Mod 1: Rly 1 Not Used	1	Press Select to enter the Relay Output Module Setting Menu The modules are setup in numerical order
Rly Mod 1: Rly 1 Hi Volts 1 Alarm	2	Relay Module 1: Relay 1: Press Select / Press Up/Down to change the relay function Press Select to select the relay function
Rly Mod 1: Rly 2 Common Alarm	3	Press Down to show: Relay Module 1: Relay 2: Press Select / Press Up/Down to change the relay function Press Select to select the relay function
Rly Mod 2: Rly 1 Lo Volts 1 Alarm	4	Repeat steps above until relay functions have been set for Module 1 The functions for up to 4 Modules each with 4 Relays may be set
Change Settings: Accept ? -> Sel	5	Press Menu to exit the Relay Output Module Setting Menu Press Menu to move from menu E to menu F Press Select to accept the changes.

Specifications:

Power consumption:

0 Relays activated	130 mW
1 Relay activated	310 mW
2 Relays activated	490 mW
3 Relays activated	670 mW
4 Relays activated	850 mW

Relay contacts:

Material:	Gold overlay Silver Nickel Alloy.
Minimum Load:	1mA @ 1VDC.
Initial Contact Resistance:	50 milliohms @ 100mA, 6VDC.
Contact Rating:	1A @ 24VDC resistive. 1A @ 120VAC resistive.
Max. Switched Voltage:	AC: 120V DC: 30V.
Max. Switched Current:	1A
Max. Switched Power:	120VA, 24W.

Note: A **maximum** of 1W (1,000mW) may be drawn from the controller expansion port. Where the total consumption of all modules exceeds this value, an auxiliary power module **must** be used.

Ordering information:

Part Number: 101 589 DRM 4-Channel Relay Module - for module address '1' through '4'

Part Number: 103 208 DRM 4-Channel Relay Module – fixed module address '1'