

The **Micha** 8-channel Input Module is designed to be connected to the Expansion Port of Micha Charge Controllers. It provides optically-isolated inputs, powered by an on-board isolated supply, which can be used to input signals from Normally Open or Normally Closed volt-free contacts.

A variety of labels are available to indicate an active input, such as MCB status contacts, external fire alarm, etc., and optionally, an active input can be set to trigger the charge controller Common Alarm Relay.

Module Address

The Module Address must be configured on the module before use. This is set using Sw.1, 2, 3 and 4 on the red DIP switch between the two ribbon connectors on the side of the module:

DIP SW. SETTINGS: 0 = OFF 1 = ON

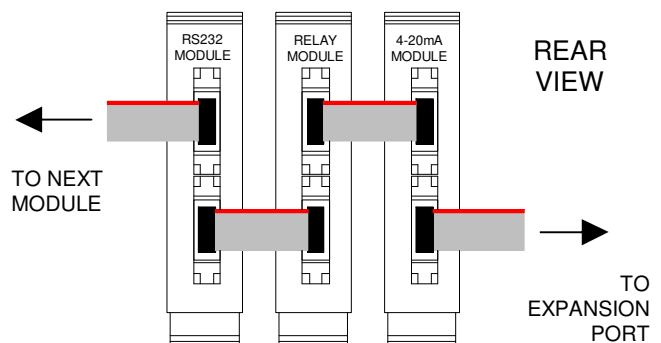
Module No:	1	2	3	4	5	6	7	8	Options:	A	B	C	D
6		x	x	x	x	x	x	x	6	0	0	1	1
5		x	x	x	x	x	x	x	5	0	1	0	1
4		0	0	0	0	0	0	0	4	x	x	x	x
3		0	0	0	1	1	1	1	3	x	x	x	x
2		0	1	1	0	0	1	1	2	x	x	x	x
1		1	0	1	0	1	0	1	1	x	x	x	x

Note: Currently only address '1' can be used, and no options are available.

Fitting and Inter-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.

Note: all ribbon-cable connections should be made before the controller is powered up. Cables can be plugged into either upper or lower connectors.
No connection should be made between modules of different controllers.





Setup

Navigate to the ‘**Set Exp Module: Digital Inputs**’ screen on the main controller setup menu, press **Select** and carry out the following procedure:

Display	Screen	Description
DigInMod1: I/p 1 Not Used	1	Press Select and the second line will flash. Press Up & Down to view the available labels for the input – for example “DCDC Fault Alarm” – and press Select
DigInMod1: I/p 1 Active: Closed	2	Press Down and the second line will change to show the mode. Press Select and the second line will flash. Press Up & Down to view the available modes: Active: Closed Active: Closed>CA (when active, the Common Alarm is triggered) Active: Open Active: Open >CA (when active, the Common Alarm is triggered) Press Select to retain this setting.
DigInMod1: I/p 2 Not Used	3	Press Down to move on to the next input and repeat the above procedure. Inputs do not have to be used in sequence, and can be individually enabled or disabled.
Change Settings: Accept ? -> Sel	4	Once the settings have been made, press Menu . The display will ask if you want to remember these settings. You <u>must</u> press Select for any changes to be stored in memory

Input Labels currently available:

- | | | |
|-----------------------|---------------------|----------------------|
| 1. O/p Feed Sum Alarm | 5. Earth Leak Alarm | 9. CP Common Alarm |
| 2. Fire Detect Alarm | 6. Batt1 Disconnect | 10. Batt2 Disconnect |
| 3. DCDC Fault Alarm | 7. Load Volts Relay | 11. Load MCCB Trip |
| 4. OVL Fault Alarm | 8. Grnd Fault Alarm | |

Specifications:

Dimensions:	82mm x 91mm x 102mm
Weight:	0.1kg
Enclosure material:	Polyamide UL94-V0
Input/Output Insulation at 500V:	>10 ⁹ Ω
Sense voltage:	12VDC nominal
Sense current:	5mA Approx.
Update Interval:	1 second
Power Consumption:	125mW-200mW
Manufacturer:	The Micha Design Company Ltd
Country of Origin:	UK
Commodity Code:	9032 8900

Note: A **maximum** of 1W 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.