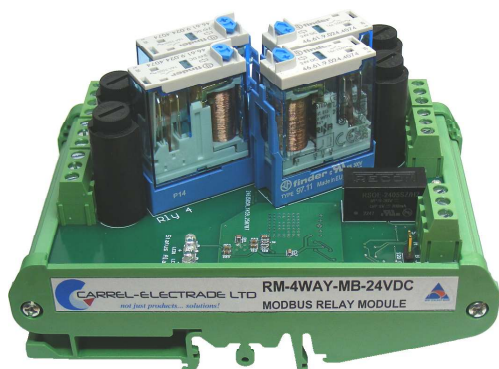


RM-4WAY-MB-24VDC MODBUS RELAY MODULE



The relay module provides 4 individual relays controlled over an RS485 serial bus using the Modbus RTU protocol.

The relays can be either mechanical Finder 46.61-024-DC relays or Autonics SRS1 solid state relays. The relay module can be populated with a mixture of mechanical relays or solid state relays to suit the loads being switched.

The module is powered from an external 24V DC supply.

Order code:

RM-4WAY-MB-24VDC 4 way relay module
Fitted with 4 x 46.61-024V-DC relays

Optional customer specified mixture of
Finder 46.61-024V-DC relays or
Autonics SRS1 solid state relays on request

Specifications

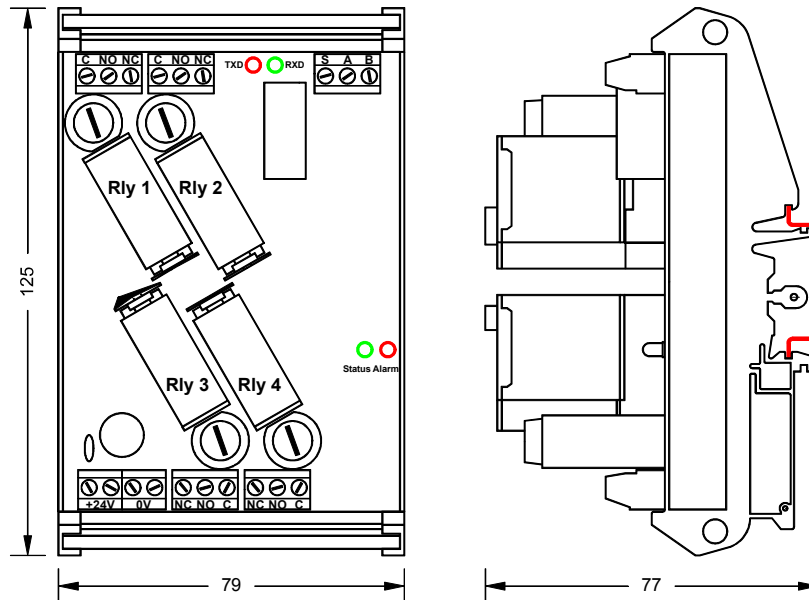
Comms	: Isolated RS485 port : Selectable 9600 (default) or 19200 Baud 8 bit no parity 1 stop bit
Protocol	: Modbus RTU slave, node addressing selectable 1 (default) to 247
Supported Functions	: 01 read discrete outputs : 03 read holding registers : 05 write discrete output : 06 write single register : 15 write multiple outputs : 16 write multiple registers
Outputs	4 individual relays with fuse holders * NOTE fuses not supplied with the unit Either Finder 46.61-024-DC mechanical relays or Autonics SRS1 solid state relays 46.61-024-DC relays : 250VAC 10A SPCO (fuse/fuse holder limited) SRS1-A1205 relays : 24-240VAC 5A NO SRS1-A1D102 relays : 5-100VDC 2A NO
Supply Input	: nominal 24V dc, operating range 18V to 30V dc : approx. 20mA + 20mA/relay, 100mA with all 4 relays on
Isolation	: 2kV isolation between the supply and RS485 bus
Temperature	Operating : -10°C to +20°C to +50°C Storage : -20°C to +70°C
EMC Compliance	: AS/NZS 61000.6.3:2012
Housing	DIN rail mounted polyamide, flame retardant UL 94 V0.
Terminals	Spring steel clamp, tin plated copper alloy terminal : up to 2.5mm ² stranded conductor : wire stripping 9mm

CARREL ELECTRADE LTD

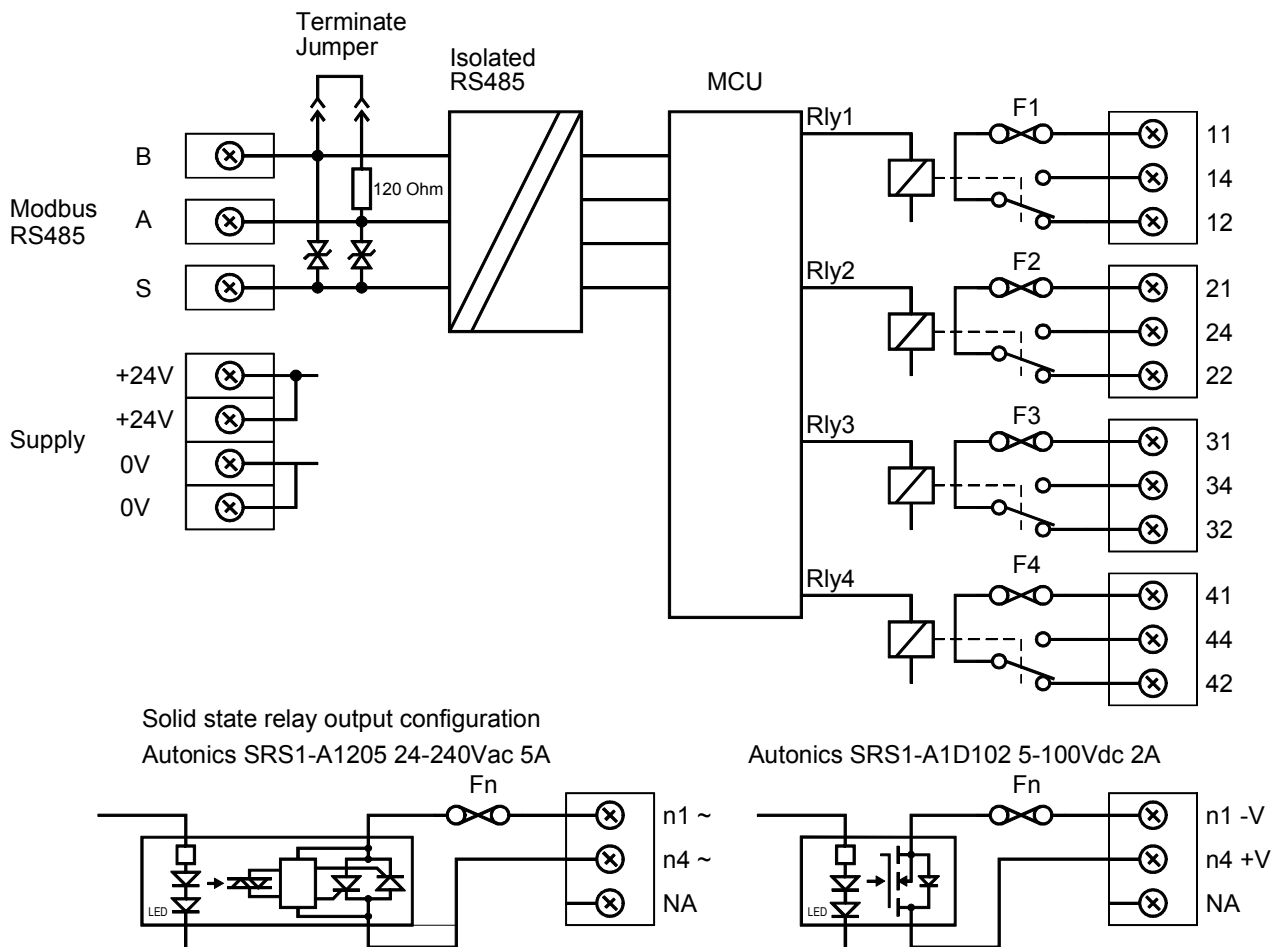
MANUFACTURERS, IMPORTERS AND DISTRIBUTORS OF ELECTRICAL ENGINEERING PRODUCTS
POSTAL ADDRESS: P O BOX 11078, ELLERSLIE 1542, AUCKLAND NEW ZEALAND
FACTORY AND OFFICE: 661 GREAT SOUTH ROAD, PENROSE 1061
TELEPHONE: +64-9-525 1753 FACSIMILE: +64-9-525 1756
CHRISTCHURCH BRANCH: 73B BRISBANE STREET, SYDENHAM
TELEPHONE: 03-366 1242 FACSIMILE: 03-379 1991
EMAIL: sales@ carrel-electrade.co.nz WEB: www.carrel-electrade.co.nz

RM-4WAY-MB-24VDC MODBUS RELAY MODULE

Dimensions



Circuit Diagram



Note. No NC connection with solid state relays.

RM-4WAY-MB-24VDC MODBUS RELAY MODULE

Modbus Operation

Modbus RTU slave over RS485.

Baud rate 9600 (default) or 19200, no parity 8 bit 1 stop bit.

Node address range 1 (default) to 247.

The relay states can be read using function 01, read outputs (coils) or function 03, read holding registers. The relay states correspond to bits 0 to 3 in register 40001.

The relay states can be written using function 05, write single output (coils), function 06 write single register, function 15 write multiple outputs (coils) or function 16, write multiple registers.

Broadcast slave address 0 read supported for function 01 read outputs (coils) and function 03 read holding registers.

Responds with actual node address plus data.

Supported Modbus functions:

- Function 01, read outputs(coils)

 - Address range 10001 to 10004

- Function 03, read holding registers

 - Address range 40001 to 40007

- Function 05, write single output (coils)

 - Address range 10001 to 10004

- Function 06, write single register

 - Address range 40001 to 40007

- Function 15, write multiple outputs (coils)

 - Address range 10001 to 10004

- Function 16, write multiple registers

 - Address range 40001 to 40007

Modbus Registers

Outputs (coils):

- 10001 Relay output 1

- 10002 Relay output 2

- 10003 Relay output 3

- 10004 Relay output 4

Holding Registers:

- 40001 MbReg1 Relay outputs

 - Relay output 1, bit 0

 - Relay output 2, bit 1

 - Relay output 3, bit 2

 - Relay output 4, bit 3

 - Bits 5 to 15 not used

- 40002 - 40005 not used

- 40006 MbBaud RS485 Baud rate, read/write either 9600 (default) or 19200

- 40007 MbNode Modbus node address, 1 (default) to 247