## Description

The MOD 4 BRM is intended for use with Direct Digital Controllers and Analogue Ramp Output Controllers to convert an Analogue Output signal to a 16 Binary stages of relay Output. It can also be configured for Sequence and Unitary control modes.

The MOD 4 BRM is constructed on a Epoxy Glass Laminate and housed in an industry standard 80 mm DIN Rail Mounting. Generous $2.5 \mathrm{~mm}^{2}$ terminals are provided for the field interconnections.

The MOD 4 BRM Module is CE rated and is RoHS compliant.


## Applications

Applications include the switching via Relay contacts of any Plant up to a 10Amp resistive load.
Switching of electric heater banks, boilers and lighting circuits.
To provide Local Manual Control of the Plant in case of controller failure.
Local Manual Control of the Plant will also enable pre-commissioning and testing.
To provide a Local LED indication of Output Status.
To provide isolation of the controller from the Harsh Plant Environment, protecting the Controller.
The inputs require only 1mA @ 0 to 10V DC to switch which allows controllers with limited output capability to operate correctly.

## Features

Expands controllers output capacity.
Microprocessor based, power fail restart timer.
Differential and timers in all operation modes eliminates relay bounce.

Unique input verification for seamless output with no dead spots.

Auto/On/Off jumper for plant checkout and override.
Universal AC or DC Supply, LED status indication
A remote Auto/On/Off Switch is available.
Design for DIN rail mounting, Rising cage terminals
Flame retardant Polyamide DIN mounting.

MOD 4 BRM Data Sheet. Issue 2, Jan 2010 E\&OE.

Supplied By

PH 0118865943 FX 0118865947

| Input Signal: | 0 to 10V DC @ 1mA Max. Differential 150 mV all modes. 0 to 20 mA or 4 to 20 mA available on request. |
| :---: | :---: |
| Output Contacts: | 10 Amp @ 230V AC Resistive. |
| Power Supply: | 24V DC @ 80mA or 24 V AC @ 2 VA (+/-15\%) S.P.D.T. |
| LED Indication: | ON when relay energised. |
| Output States: | Jumper selectable AUTO/ON/OFF. Auto, controlled by input. On, always on. Off, always off. |
| Electrical connections: | Rising cage terminals for 0,5 to $2,5 \mathrm{~mm}^{2}$ cable. |
| Ambient Conditions: | -10 to $50^{\circ} \mathrm{C} 0$ to $80 \% \mathrm{RH}$ non-condensing. |
| Dimensions: | $80 \times 79 \times 52 \mathrm{~mm}$. |
| Weight | 144 g |
| I.P. Rating: | IP00. |
| Mounting | Flame retardant green Polyamide 66 UL 94V0 moulding. To suit 35 mm top hat din rail. |

## Operating Modes

Binary Mode

| Input | 0.6 V | 1.2 V | 1.8 V | 2.4 V | 3.0 V | 3.6 V | 4.2 V | 4.8 V | 5.4 V | 6.0 V | 6.6 V | 7.2 V | 7.8 V | 8.4 V | 9.0 V | 9.6 V |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Rly 1 | OFF | ON | OFF | ON | OFF | ON | OFF | ON | OFF | ON | OFF | ON | OFF | ON | OFF | ON |
| Rly 2 | OFF | OFF | ON | ON | OFF | OFF | ON | ON | OFF | OFF | ON | ON | OFF | OFF | ON | ON |
| Rly 3 | OFF | OFF | OFF | OFF | ON | ON | ON | ON | OFF | OFF | OFF | OFF | ON | ON | ON | ON |
| Rly 4 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON | ON | ON | ON | ON | ON | ON | ON |

Forward Sequence Mode

| Input | 0.6 V | 2.4 V | 4.8 V | 7.2 V | 9.6 V |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Rly 1 | OFF | ON | ON | ON | ON |
| Rly 2 | OFF | OFF | ON | ON | ON |
| Rly 3 | OFF | OFF | OFF | ON | ON |
| Rly 4 | OFF | OFF | OFF | OFF | ON |

Unitary Mode

| Input | 0.6 V | 2.4 V | 4.8 V | 7.2 V | 9.6 V |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Rly 1 | OFF | ON | OFF | ON | OFF |
| Rly 2 | OFF | OFF | ON | OFF | OFF |
| Rly 3 | OFF | OFF | OFF | ON | OFF |
| Rly 4 | OFF | OFF | OFF | OFF | ON |

Reverse Sequence Mode

| Input | 0.6 V | 2.4 V | 4.8 V | 7.2 V | 9.6 V |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Rly 1 | OFF | OFF | OFF | OFF | ON |
| Rly 2 | OFF | OFF | OFF | ON | ON |
| Rly 3 | OFF | OFF | ON | ON | ON |
| Rly 4 | OFF | ON | ON | ON | ON |

Dip Switch Settings

| Mode | SW1 | SW2 | SW3 | SW4 |
| :--- | :--- | :--- | :--- | :--- |
| Binary | OFF | OFF | OFF | ON |
| F Sequenced | OFF | OFF | ON | OFF |
| R Sequenced | OFF | ON | OFF | OFF |
| Unitary | ON | OFF | OFF | OFF |

See also the MOD 4 BRM Installation Sheet for wiring detail.

[^0]PO Box 950, Bromhof, 2154. Telephone +27 118865943 Fax +27 118865947
www.watchtower.co.za Email: watchtower@icon.co.za


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