

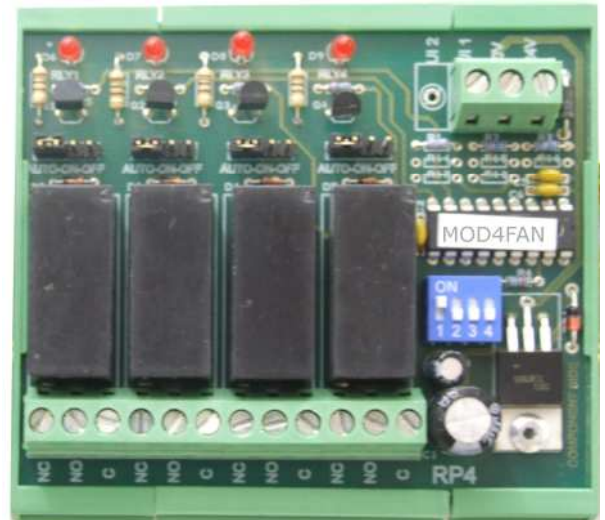
## MOD4FAN Four Relay Fan Control Module

### Description

The MOD 4 FAN is intended for use with Direct Digital Controllers, Analogue Ramp Output Controllers or as a stand alone system to convert an Analogue Output signal to a Three Speed Fan control with unit start.

The MOD 4 FAN is constructed on a Epoxy Glass Laminate and housed in an industry standard 80mm DIN Rail Mounting. Generous 2.5mm<sup>2</sup> terminals are provided for the field interconnections.

The MOD 4 FAN 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 Three Speed Fans with unit start / stop or any other three stage device.

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

Design for DIN rail mounting, Rising cage terminals

Flame retardant Polyamide DIN mounting.



**Specifications**

Input Signal UI1: 0 to 10V DC @ 1mA Max. Differential 150mV.  
 0 to 20mA or 4 to 20mA available on request.

Input Signal UI2: 0 to Infinity Resistance. Differential 1K.  
 0 to 10V, 0 to 20mA or 4 to 20mA available on request.

Output Contacts: 10 Amp @ 230V AC Resistive.

Power Supply: 24V DC @ 80mA or 24V 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 2,5mm<sup>2</sup> cable.

Ambient Conditions: -10 to 50°C 0 to 80% RH non-condensing.

Dimensions: 80 x 79 x 52mm.

Weight 144g

I.P. Rating: IP00.

Mounting Flame retardant green Polyamide 66 UL 94V0 moulding.  
 To suit 35mm top hat din rail.

**Table 1: Output Switching Table Auto Input**

Input	0.0V	1.5V	4.0V	6.5V	9.0V
Rly 1 Unit Start	OFF	OFF	ON	ON	ON
Rly 2 Fan Low	OFF	OFF	ON	OFF	OFF
Rly 3 Fan Medium	OFF	OFF	OFF	ON	OFF
Rly 4 Fan High	OFF	OFF	OFF	OFF	ON

**Table 2: Output Switching Table Manual Input**

Input	0.0K	32.6k	29.3K	26.0K	22.7K	∞
Rly 1 Unit Start	OFF	OFF	ON	ON	ON	Auto
Rly 2 Fan Low	OFF	OFF	ON	OFF	OFF	Auto
Rly 3 Fan Medium	OFF	OFF	OFF	ON	OFF	Auto
Rly 4 Fan High	OFF	OFF	OFF	OFF	ON	Auto

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

Watchtower Trading reserves the right to update this product, revise and update this publication including information hereof without obligation to notify any person of such updates, revisions or changes.

Watchtower Trading

PO Box 950, Bromhof, 2154. Telephone +27 11 886 5943 Fax +27 11 886 5947

www.watchtower.co.za Email: watchtower@icon.co.za

Issue 2 Jan 2010

**DIP Switch Settings**

SW1	SW2	SW3	SW4	MODE	OPERATION
OFF	OFF	OFF	OFF	Auto Only	As Table 1 Manual has no operation
OFF	OFF	OFF	ON	Manual Only	As Table 2 Auto has no operation
OFF	OFF	ON	OFF	Manual with Auto Override	As Table 2 if has a valid auto input then as Table 1 *
OFF	OFF	ON	ON	Manual with Auto Sw Select	As Table 2 if manual has auto value then as Table 1 **
OFF	ON	OFF	OFF	Locked in Fan Low	Local override Manual and Auto no operation
OFF	ON	OFF	ON	Locked in Fan Medium	Local override Manual and Auto no operation
OFF	ON	ON	OFF	Locked in Fan High	Local override Manual and Auto no operation
OFF	ON	ON	ON	Auto Only	As Table 1 Manual has no operation
ON	OFF	OFF	OFF	Auto Only	As Table 1 Manual has no operation
ON	OFF	OFF	ON	Auto Only	As Table 1 Manual has no operation
ON	OFF	ON	OFF	Auto Only	As Table 1 Manual has no operation
ON	OFF	ON	ON	Auto Only	As Table 1 Manual has no operation
ON	ON	OFF	OFF	Auto Only	As Table 1 Manual has no operation
ON	ON	OFF	ON	Auto Only	As Table 1 Manual has no operation
ON	ON	ON	OFF	Auto Only	As Table 1 Manual has no operation
ON	ON	ON	ON	Auto Only	As Table 1 Manual has no operation

\* 0.0V Is not a valid Auto input so the module operate in Manual Mode as Table 2. Inputs of 1.5, 4.0, 6.5 and 9.0V are valid Auto inputs so the module operate in Auto Mode Table 1. The change over is automatic and the Auto input will have priority.

\*\* When the Manual selector switch is in the range 0.0K to 22.7K the Module will operate in Manual Mode as Table 1. If the Manual selector switch is the Auto position i.e. open circuit, infinity, then the Module will operate in Auto Mode as Table 2. The change over is manual and the Manual input will have priority.

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

Watchtower Trading reserves the right to update this product, revise and update this publication including information hereof without obligation to notify any person of such updates, revisions or changes.

Watchtower Trading

PO Box 950, Bromhof, 2154. Telephone +27 11 886 5943 Fax +27 11 886 5947

www.watchtower.co.za Email: watchtower@icon.co.za

Issue 2 Jan 2010