CLIPSAL

by Schneider Electric

Push Button
Electronic Timer

31VETR3
Series

3 WIRE DESIGN

Installation Instructions

Contents

1.0 Product Range

31VETR3   Electronic Timer, Push Button, 220-240V~, 50Hz, 10AX (Standard Range)
2031VETR3   Electronic Timer, Push Button, 220-240V~, 50Hz, 10AX (2000 Series)

*Please note that these products are also available in other configurations and in a wide range of colours. For further information, please contact your nearest Clipsal Sales Representative.

2.0 Description

The Clipsal 31VETR3 Series is a range of high quality, three-wire, push button electronic time delay switches with remote control and override off facilities.

The product is designed to control lighting and other loads to prevent them from being left on unnecessarily. Significant energy savings can result when used for staircase, hallway, classroom and similar applications.

The unit has a powerful 10AX switching capability, and is suitable for a wide range of load types, including incandescent, inductive and fluorescent loads.

3.0 Features

- State of the art microprocessor design
- Time setting selection from 10 seconds to 15 hours
- Highly accurate digital timing (±0.5%)
- Micro switch configurable indicator function:
    - Indicator On when contact closed; OR
    - Indicator On when contact open.
- Micro switch selectable modes:
    - Contact open during timing (Normally Closed); OR
    - Contact closed during timing (Normally Open).
- Remote control capability, using remote wired momentary action switches
- 10AX switch load rating.
- Suitable for a wide range of load types
    - Incandescent (tungsten filament) lamps
    - 240V Halogen / Dichroic Lamps
    - Low voltage downlights using electronic transformers
    - Low voltage downlights using iron-core transformers
    - Fluorescent Lighting Loads
    - Compact Fluorescent Light Loads
    - LED Lighting Loads
    - Small Motor Loads (limited to 2A)
- Available in a range of plate styles and colour variants
- Suitable for new installations or retro-fit applications
- Complies with Australian Standards

4.0 Important Warning

- It is illegal for persons other than an appropriately licenced electrical contractor or other persons authorised by legislation to work on the fixed wiring of any electrical installation. Penalties for conviction are severe!

5.0 Timer Control

5.1 Push Button Control

The built in push button has the following functions:
- Pressing the button when the timer is passive will initiate timing and set the load, and indicator, to the active state according to the configuration switch settings.
- Pressing the button during timing will cancel timing and set the load, and indicator, to the passive state according to the configuration switch settings.
- To restart the timer when the load is already on, simply perform consecutive turn-on and turn-off functions.

5.2 Indicator Function

The built in light indicator is used to indicate the status of the load. It can be configured by the micro switch on the rear of the unit to be on when contact is either open or closed.

5.3 Relay Output

The relay contact can be configured by the appropriate micro switch on the rear of the unit to be closed during timing (Normally Open) or open during timing (Normally Closed). The contact is always open when the supply is turned off regardless of the configuration.
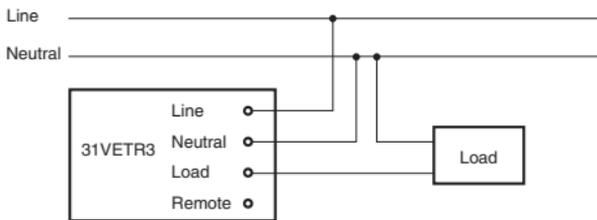
5.4 Remote Operation

The unit can respond to one or more remote wired momentary switch inputs. The unit will respond to the remote switch inputs in exactly the same way as if pressing the button on the front of the unit.
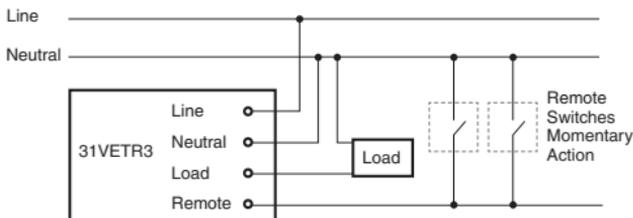
6.0 Wiring Diagrams

6.1 Local Operation

For most normal applications, where operation from the local push button is required only, the timer is wired as shown in the figure below.

6.2 Remote Operation

Additional switches can be installed in parallel, allowing the timer to be activated from one or more remote locations.

NOTE:
- The remote switch wiring must be rated for 240V a.c.
- The sum of cable lengths used to connect the remote switches must not exceed 100m.
- Remote switches MUST be Normally Open momentary operation type switches.

7.0 Timer Settings

WARNING: For safety reasons the setup should be performed with the timer isolated from the mains supply.

7.1 Timer Adjustment Settings

The timer setting is achieved by the use of an 8 way micro switch. The switch is accessible from the back of the unit through a window in the enclosure. The functions of the individual switches are presented on the following figure:

Timer Micro Switches
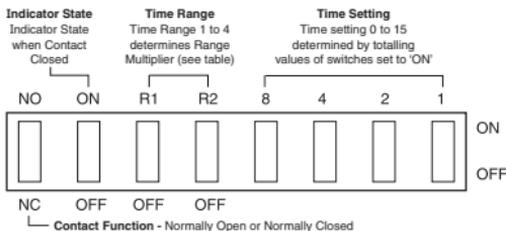
Time Delay Setting

The Time Setting is determined by totalling the values of each of the time setting switches that are set to 'ON' (any combination of 1, 2, 4 and 8). The Time Range is determined by the positions of the time range switches R1 and R2 (refer to Time Ranges table below). The Time Delay is then calculated by the Time Setting multiplied by the Range Multiplier.

$$\text{Time Delay} = \text{Time Setting} \times \text{Range Multiplier}$$

Time Ranges

The following four Time Ranges are available:

Time Range	R1	R2	Range Multiplier	Time Delay	
				Minimum Time Setting switches 1,2,4,8	**Maximum** Time Setting switches 1,2,4,8
1	OFF	OFF	10 seconds	10 seconds	2 min & 30 sec
2	ON	OFF	1 minute	1 minute	15 minutes
3	OFF	ON	10 minutes	10 minutes	2 hr & 30 min
4	ON	ON	1 hour	1 hour	15 hour

Contact Function

Setting	Meaning
'NO'	Relay contact is Normally Open. Contact will CLOSE during timing operation.
'NC'	Relay contact is Normally Closed. Contact will OPEN during timing operation.

Indicator State

Setting	Meaning
'ON'	Indicator ON when contact is CLOSED. Indicator OFF when contact OPEN.
'OFF'	Indicator OFF when contact is CLOSED. Indicator ON when contact OPEN.

7.2 Timer Example 1

- Required Time Delay is 6 minutes.
- Contact must Close during timing.
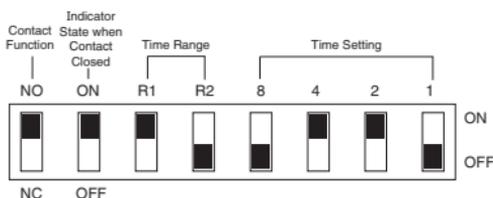- Indicator is ON when contact is Closed.

Time Delay Setting

Initially set all 'Time Setting' switches to the 'OFF' position. Select the first timing range in the range selection table for which 'Maximum Setting' is higher than the required time delay. The Time Range table shows that Time Range 2 (which has a 15 minute maximum setting) is the most appropriate time range. Select Time Range 2 by setting switch R1 to 'ON' and R2 to 'OFF'. The selected Range Multiplier is now 1 minute. The highest time value for an individual switch lower than 6 is 4. Set the micro switch 4 to 'ON'. Remaining time required is 6 - 4 = 2. Set the micro switch 2 to 'ON'. Total amount of time set is (4 + 2) x (1 minute) = 6 minutes.

Contact Function Setting

Set the 'Contact Function' micro switch to 'NO' position to select the Normally Open contact function (contact closes during timing).
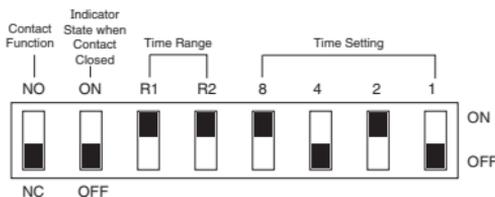
Indicator Function Setting

Set the 'Indicator State' micro switch to the 'ON' position so that the indicator is ON when the contact is closed.

7.3 Timer Example 2

- Required Time Delay is 10 hours.
- Required Contact Function is Normally Closed.
- Indicator is required to be ON when contact is Open.

8.0 Electrical Specifications

Parameter	Value	
Nominal Operating Voltage	220 - 240V~	
Nominal Operating Frequency	50Hz	
Maximum Load Current	10AX	
Minimum Load Current	0mA	
Compatible Loads		Compact Fluorescent Lamps
		LED Lighting
		Incandescent lamps Halogen 240V lamps
		Low voltage lighting with electronic transformers
		Low voltage lighting with iron-core transformers
		Fluorescent Lighting
		Small Motor Loads (Maximum 2A)
Timer Range	10 seconds – 15 hours	
Timer Accuracy	± 0.5%	
Power-Up Status	OFF	
Operating Temperature Range	0 to 40°C	
Operating Humidity Range	10 to 90% R.H.	
Mounting Centres	84mm Australian Pattern Plate	
Safety Compliances	AS/NZS3100, AS/NZS3133	
EMC Emission Compliance	AS/NZS CISPR15	
Specifications Typical @ 240V~, 25°C		
No User Serviceable Parts Inside		

WARNING:
- Operation outside of these specifications may result in unexpected behaviour, or even product failure.
- Timer accuracy may be affected by voltage, temperature and humidity.
- Warranty may be voided when controlling any incompatible load types as determined by Clipsal Australia.

9.0 Warranty Statement

1. The benefits conferred herein are in addition to, and in no way shall be deemed to derogate; either expressly or by implication, any or all other rights and remedies in respect to the Clipsal Product, which the consumer has under the Commonwealth Trade Practices Act or any other similar State or Territory Laws.

2. The warrantor is Clipsal Australia Pty Ltd of 33-37 Port Wakefield Road, Gepps Cross, South Australia 5094. With registered offices in all Australian states.

3. This Clipsal product is guaranteed against faulty workmanship and materials for a period of two (2) years from the date of installation.

4. Clipsal Australia Pty Ltd reserves the right, at its discretion, to either repair free of parts and labour charges, replace or offer refund in respect to any article found to be faulty due to materials, parts or workmanship.

5. This warranty is expressly subject to the Clipsal product being installed, wired, tested, operated and used in accordance with the manufacturer's instructions.

6. All costs of a claim shall be met by Clipsal Australia Pty Ltd, however should the product that is the subject of the claim be found to be in good working order all such costs shall be met by the claimant.

7. When making a claim the consumer shall forward the Clipsal product to the nearest office of Clipsal Australia Pty Ltd with adequate particulars of the defect within 28 days of the fault occurring. The product should be returned securely packed, complete with details of the date and place of purchase, description of load, and circumstances of malfunction.

Clipsal Australia Pty Ltd

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Contact us: clipsal.com/feedback

National Customer Care Enquiries:

Tel 1300 2025 25   Fax 1300 2025 56

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