# V1C

# Voltage Monitor

## Description

The V1C is a precise UNDER / OVER voltage monitoring relay. The unit can be ordered in many AC / DC voltage ranges, making it ideal for many voltage monitoring applications. The set point and hysteresis can be adjusted with separate potentiometers. The unit also incorporates a latch facility to prevent undetected failures.

## FEATURES

- Monitoring relay for voltage control
- Measures separate voltage input
- Rear DIP switch selection of UNDER / OVER voltage
- Rear DIP switch selection for 10 sec start-up delay
- Potentiometer adjustable voltage limits
- Potentiometer adjustable hysteresis limits
- Power supply ON and Relay ON LEDs
- Latch facility incorporated
- Output 10A SPDT relay

## Level Sensing Input Specifications

| | |
|---|---|
| Input | Pin 5 & 7 |
| Standard Measuring Ranges | 4, 40, 400 VAC/DC |
| Internal Impedance | 500k$\Omega$ |
| Measurement Accuracy | 1% |
| Maximum Over Voltage | + 50% |
| Hysteresis | 5 - 50% |
| Repeat Accuracy | <1% |
| Response Time | 1 sec |
| Start-up Delay | 10 sec |
| Latch Input | Pin 8 & 9 |

## Output Specifications

| | |
|---|---|
| Output Specifications | SPDT |
| Rated Isolation Voltage | 6000 VAC (contact / electric) 1000 VAC (contact / contact) |
| Nominal Rate in AC1 ( Ag-Ni ) | 1500 VA |
| Rated Current | 10A |
| Rated Voltage | 250V |
| Mechanical Life | 10x10$^6$ cycles |
| Electrical Life | 110x10$^3$ cycles (at max load) |
| Operation Frequency | ≤ 1800 cycles/h |

## Supply Specifications

| | |
|---|---|
| Power Supply AC Type (Galvanic) | 110, 230, 400V 525V ± 10% 50 / 60 Hz ± 5Hz |
| Isolation | 4kV |
| Consumption | ± 3VA ± 6VA 525 V |
| Power Supply DC Types (Non-galvanic) | 12,24,48 V ± 10% |
| Isolation | None |
| Consumption | ± 100 mA |

## General Specifications

| | |
|---|---|
| Power ON Delay | ≤ 300 ms |
| Power OFF Delay | ≤ 200 ms |
| Indication for Power Supply ON | LED red |
| Output ON | LED green |
| Environment | |
| Degree Of Protection | IP 20 |
| Operating Temperature | -10 to + 50$^\text{o}$C |
| Storage Temperature | -50 to + 85$^\text{o}$C |
| Weight | 200g |

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## Mode of Operations

The relay will de-energize if the voltage exceeds the set limit. If the voltage reduces by the percentage hysteresis of the set value the relay will energize.
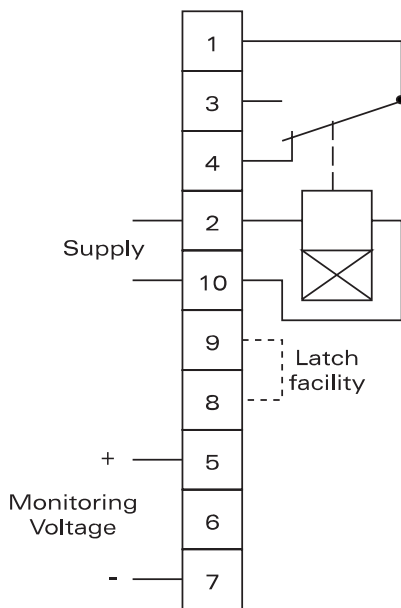
**Example**
Protection for over voltage of equipment.

The relay will de-energize if the voltage drops below the set limit. IF the voltage increases by the percentage hysteresis of the set value the relay will energize.

**Example**
Battery charging installation.

## Wiring Diagram



## Operations Diagram

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