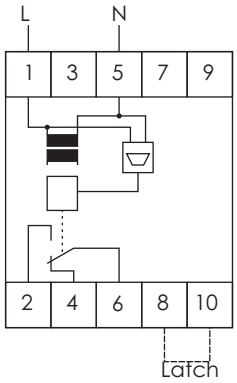
DVW1

Single Phase Voltage Window Comparator

Description

Single Phase Voltage Window Comparator for monitoring supply voltage between two levels. The unit ideal is for all single phase voltage monitoring applications to protect valuable equipment. With the wide range of delays, the protection is extended to prevent immediate re-starts. Over and under voltage can be set via front panel dials. The latch facility prevents unmonitored fault conditions. Hysteresis is fixed at 5%.

Wiring Diagram



FEATURES

- High resolution analogue microprocessor
- Front face adjustable over and under voltage levels
- Monitors own supply
- 4 Front face selectable delays
- Optional latch facility
- Modular 35.5mm DIN rail mountable
- 10A SPDT output relay
- LED indication for over and under voltage
- LED indication for power supply ON

Input Specifications

Input	Pin 1, 5 L & N
Measuring Ranges (VAC)	230V
Power Supply Range	
Upper Limit	241 - 264V
Lower Limit	218 - 195V
Scale	± 5 - 15%
Voltage Interruption	>500 ms
Dielectric Voltage	None (supply/electronics)
Rated Impulse Withstand	4 kV (50 us line/line)

Output Specifications

Output Specifications	SPDT
Rated Isolation Voltage	6000 VAC
	(contact / electric)
Nominal Rate in Ac1	1000 VAC
(Ag-Ni)	(contact / contact)
	2500 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	110, 230, 400V
(Galvanic)	525V ± 10%
	50 / 60 Hz ± 5Hz
Isolation	4kV
Consumption	± 3VA
	± 6VA 525 V

General Specifications

Power ON Delay	≤300 ms
Power OFF Delay	≤200 ms
Indication for	
Power Supply ON	LED green
Over Voltage	LED yellow
Under Voltage	LED yellow
Environment	
Degree Of Protection	IP 20
Operating Temperature	-10 to + 50°C
Storage Temperature	-50 to + 85°C
Weight	200g

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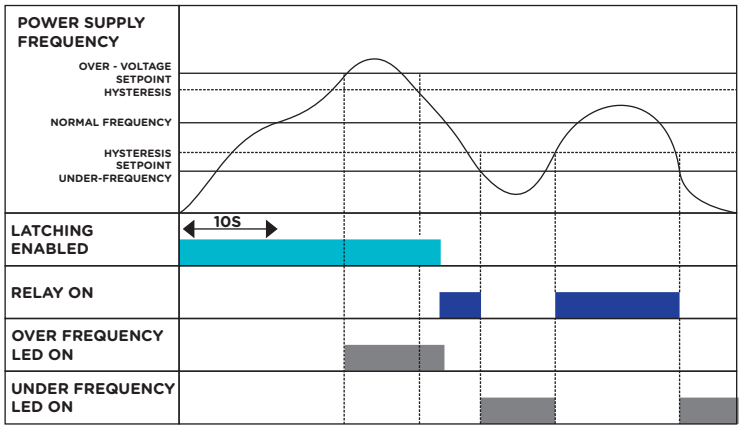
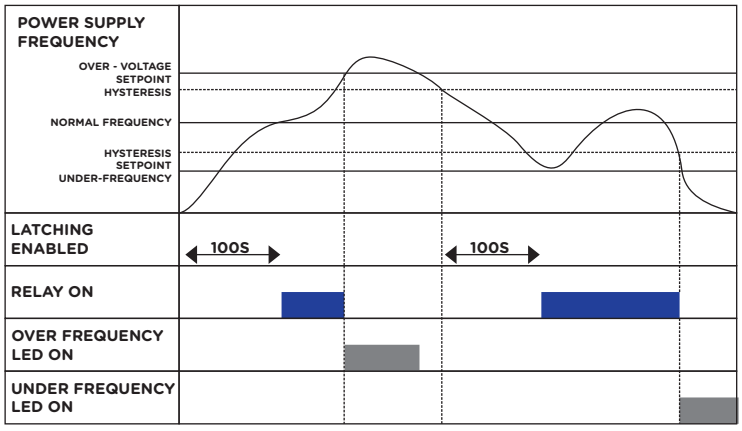
Mode of Operations

The relay will release if the supply voltage exceeds the set upper limit or fall below the set lower limit. If the voltage returns to within the set values the relay will operate. Refer to the delay settings for operation delays.

Operations Diagram





Delay Functions

1) No Delay

Measurement start immediately and relay responds directly normal acquisition delay apply)

2) 10s start up

Relay operates immediately and power LED flashes when power supply is applied. Measurement starts after 10 sec and power LED stops flashing.

3) 180s recovery delay

When power is applied relay does not operate and power LED flashes. After 180sec measurement starts and power LED stops flashing. If relay releases, time delay start, power LED flashes and relay will only operate again after 180sec.

4) 10s response delay

Relay operates immediately and power LED flashes when power supply is applied. Measurement starts after 10 sec and power LED stops flashing. The relay will only release after a fault condition has been present for 10 sec.