FAILSAFE DESIGN

POWER MONITORS



Over & Under Voltage Single Phase

WCPT1

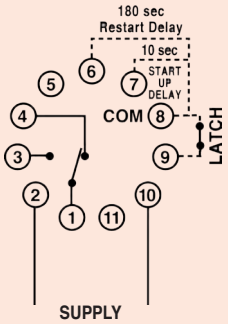
SPDT

This new single phase window voltage comparator replaces **WCP1** and monitors the supply voltage. The output relay energises if the voltage level is within the adjustable over and undervoltage limits and de-energises when the voltage is outside this range.

Built-in optional facilities:

1. External latch
2. 10 sec start up delay
3. 180 sec fault restart delay

These facilities can be utilised by connecting external links as per the diagram below.



Link 8 & 9
External latch N/C
Link 8 & 7
10 sec start up delay.
Link 8 & 6
180 sec fault restart delay.
Overvolts 5 - 30% ADJ.
Undervolts 5 to 30% ADJ.
LEDs:
Over voltage – Red
Under voltage – Red
Supply healthy – Green

2% Fixed



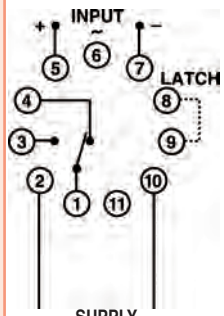
Voltage Monitor

VCP1 **VCP1/M**

SPDT

The output relay is energised when the voltage peak (peak voltage on AC) overshoots the level selected on the front face potentiometer. It de-energises when voltage falls below the normal voltage Ue by 5-50% or when supply breaks.

The hysteresis is adjustable and its selection does not change the chosen voltage level.



VCP1/M: Multi voltage inputs:

Connect:
5-8 0 -10VAC(RMS)/DC
6-8 0.4 -40VAC(RMS)/DC
7-8 4 -400VAC(RMS)/DC
11-8 6 -600VAC(RMS)/DC

(For detailed wiring diagram, see www.acdc.co.za)

5 - 50% Adjustable



Over Current Monitor

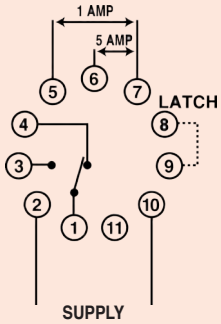
OCP1 **OCP1/R** **OCP1/D**

SPDT

OCP1 - 1A/5A AC/DC
OCP1/R - As **OCP1** with Remote Potentiometer
OCP1/D - 60mV/150mV AC/DC

Trip Point - The relay de-energises when the input current rises above the set point and energises when the input current falls a certain percentage (hysteresis) below the set point.

Hysteresis - The difference between the trip level and the set level.



UCP1
OCP1
CWP1
Input:
AC: 0 - 1A
Pins 5 +7
0 - 5A
Pins 6 +7
Startup delay: 10 seconds
For external pot use 10kV

5 - 50% Adjustable



Under Current Monitor

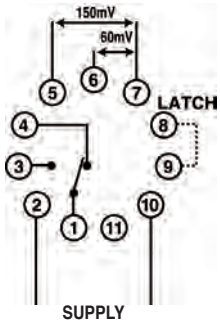
UCP1 **UCP1/D**
UCP1/E **UCP1/R**

SPDT

UCP1 - 1A/5A AC/DC
UCP1/R - As **UCP1** with Remote Potentiometer
UCP1/E - As **UCP1** But no Delay
UCP1/D - 60mV/150mV AC/DC

Trip Point - The relay de-energises when the input current drops below the set point and energises when the input current rises a certain percentage (hysteresis) above the set point.

Hysteresis - The difference between the set trip level and the recovery level.



UCP1/D
OCP1/D

DC: 0 - 150MV
Pins 5 +7
0 - 60MV
Pins 6 +7



Over & Under Current Monitor

CWP1

SPDT

CWP1 - 1A/5A AC/DC

The relay senses the input current and the relay will energise, if the current is within the set overcurrent and undercurrent.

The relay will de-energise if the current rises above the overcurrent setpoint or drops below the under-current set point.

LEDs:
Over current – Red
Under current – Red
Supply on – Green

2% Fixed



Over & Under Frequency Monitor

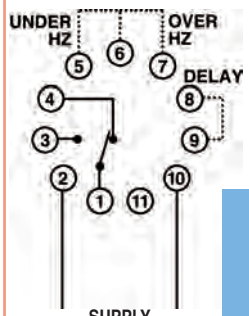
FR1

SPDT

The unit senses the supply frequency and the relay will energise if the frequency is within the set over frequency limits.

The relay will de-energise if the frequency rises above the over frequency setpoint or drops below the under frequency set point.

Link 6 & 5: Under Hz
Link 6 & 7: Over Hz



Response delay: 1 sec
Over: 52 - 58Hz adjustable
Under: 48 - 42Hz adjustable

LEDs:
Over frequency – Red
Under frequency – Red
Supply on – Green

2% Fixed

Galvanic isolation with internal transformer 12, 24, 48, 115, 230, 400, 525VAC ±15% (Isolation test volts 2kV)

12, 24, 48VDC (110VDC for **VCP1**) (**WCPT1** Not available in 12VDC) | -

SPDT: 10A @ 250VAC DPDT: 5A @ 250VAC

AUTOMATION

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