

## OPERATING INSTRUCTIONS : OP INST VPRA2M OP400-V01

OP400-V01

### SELEC VPRA2M Operating Instructions



#### FEATURES

- Under Voltage, Over Voltage, Phase Asymmetry, Phase sequence, Phase Failure and Neutral loss detection
- Adjustable over and under voltage trip level
- Adjustable operate time and trip time delay
- DPDT Relay Output (5A Resistive)
- Din Rail mounting

#### SPECIFICATIONS

##### FUNCTION

Voltage and Phase controls

##### WIRING INPUT

1 Ø-2 wire, 3 Ø-4 wire

##### AUXILIARY

Self powered

##### Nominal Supply

230V AC (L-N)

##### OPERATING RANGE

127 - 288V AC(L-N)

##### FREQUENCY RANGE

48 - 63Hz

##### VA RATING

5VA

##### RESET

Auto

##### TRIP SETTING

Under Voltage : 127 to 219V AC(L-N)

Over Voltage : 242 to 288V AC(L-N)

Phase asymmetry : >10%

Setting accuracy : ±5% of full scale ( Trip )  
± 10% of full scale ( Time )

##### TIME DELAY

Power ON Delay : 0-15 Sec

For 0 setting : <400msec

Trip Time Delay : 0-15 Sec

For 0 setting : <100msec

Recovery Time Delay : 5 Sec. ±200ms

For L1 / Neutral loss Trip Delay : <200ms

For Phase Sequence Trip Delay : <250ms

#### HYSTERESIS

7V ± 2V of trip Setting

#### OUTPUT SPECIFICATIONS

1 Relay : 2 C/O(DPDT)

#### RELAY RATING

5A (Res) @ 250V AC/28V DC

#### LED INDICATION

- Green : Power ON
- Blink : L2 / L3 Phase Loss
- OV : Over Voltage
- UV : Under Voltage
- ON : Phase Reverse
- Blink : Phase asymmetry

#### ENVIRONMENTAL CONDITIONS

Temperature : Operating : - 10°C to 55°C

Storage : - 25°C to 70°C

Humidity : Up to 85% non-condensing

#### MECHANICAL SPECIFICATIONS

Mounting : Din rail mounting

Dimension : 35 x 90 x 60mm

Enclosure : UL94V0

Degree of Protection

IP 20 for Terminal

IP 40 for Enclosure

IP 50 for Faceplate

#### WEIGHT

150gms

#### SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed to ensure the safety of the operating personnel as well as the instrument.

If there is physical damage to the unit then do not use it. Read complete instructions prior to installation of unit.

#### WIRING GUIDELINES

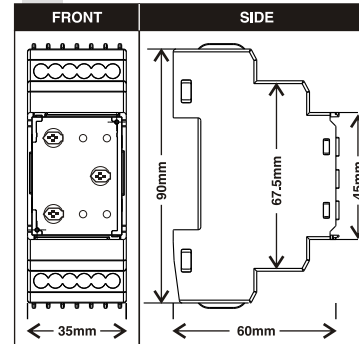
##### WARNING :

1. To prevent the risk of electric shock, power supply to the equipment must be kept OFF while doing the wiring arrangement.
2. Wiring shall be done strictly according to the terminal layout. Confirm that all connections are correct.

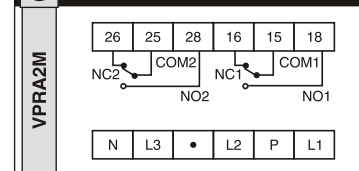
##### CAUTION :

1. To ensure the safe operate of unit check wiring connection
2. It is recomm. to test the unit period to satisfy resolutions.

#### MECHANICAL INSTALLATION



#### TERMINAL CONNECTIONS



#### LED INDICATION CHART

SUPPLY	POWER LED	UNDER VOLTAGE LED	OVER VOLTAGE LED	PHASE REVERSE / ASYMMETRY
NOMINAL CONDITION	ON	OFF	OFF	OFF
UNDER VOLTAGE	ON	ON	OFF	OFF
OVER VOLTAGE	ON	OFF	ON	OFF
PHASE REVERSED	ON	OFF	OFF	ON
PHASE ASYMMETRY	ON	OFF	OFF	BLINK
L2/L3 PHASE FAIL	BLINK	OFF	OFF	OFF

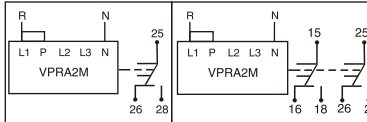
#### OPERATING MODES

Product operates in single phase as well as three phase mode.

##### A) Single Phase Mode :

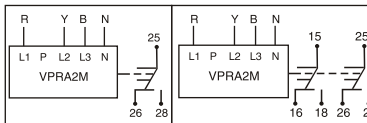
Connect R-Phase at L1, P and Neutral at N terminal. L2 and L3 connections are kept open. In single phase mode device monitors only L1 phase for OV and UV condition.

##### Single Phase Application



##### B) Three Phase Mode :

Connect three phase at L1, L2, L3 and Neutral at N terminal. Keep 'P' terminal open.



#### ORDER CODE INFORMATION

PRODUCT	CERTIFICATION	
	CE	RoHS
VPRA2M	■	—
VPRA2M-RoHS	■	■

( Specifications subject to change as development is a continuous process. )

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Doc. name : OP INST VPRA2M OP400-V01 ( Page 1 of 1 )

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