



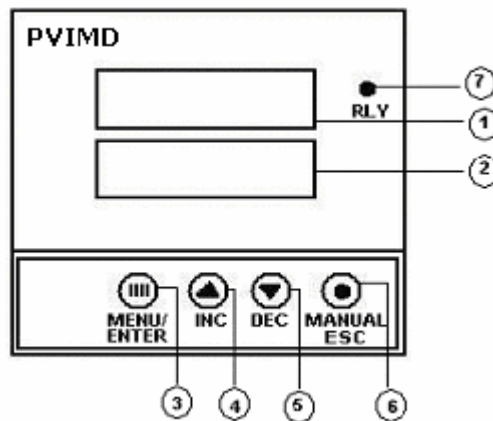
OPERATING INSTRUCTIONS Model : **PVIMD**

OPI No. : OPI/126

PAGE : 01 of 02

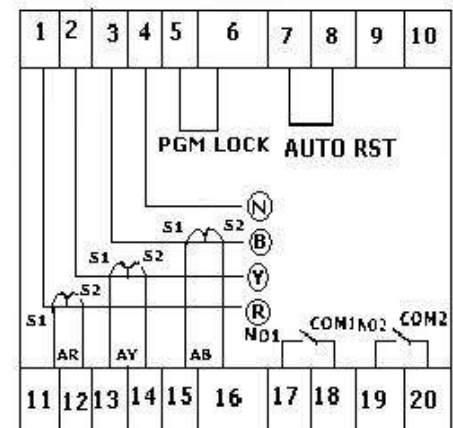
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Front panel layout



- 1: Display 1 : Shows Parameter Value
- 2: Display 2 : Shows the Parameter
- 3: Press this button to enter program mode
- 4: To Increment value during programming
- 5: To Decrement value during programming
- 6: ESC Key to go back to previous parameter .
MANUAL Key in run mode to make relay "ON" when fault is rectified.
- 7: LED: Shows the relay ON/OFF Status.

Terminal Details



- 1: R- Phase 5 & 6 : Program Lock
- 2: Y-Phase 7 & 8 : Auto reset
- 3: B-Phase 17&18 : NO1 & COM1
- 4: Neutral 19&20 : NO2 & COM2
- 11&12: AR – R Phase current
- 13&14: AY – Y Phase current
- 15 & 16: AB – B Phase current

PVIMD is a microcontroller digital based Phase Voltage Current Monitoring & Control Device designed to display 3 Phase voltages, 3 Phase current and monitors **phase reversals, single phasing, phase unbalance, over voltage, under voltage, Over Current and Under Current** faults in a 3 phase 4 wire system.

Once any one of the programmed limits are met, unit shall switch OFF the relay after programmed trip delay timings. Once the error is rectified, relay will power ON the load again depending on automatic or manual selection.

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When multiple faults are identified fault on the highest priority is shown. Priorities are defined as follows, Phase Failure, Phase Reverse, Phase Unbalance, Over Current, Under Current, Over Voltage and Under Voltage.

How to Program

- Short terminal 5 & 6 (Potential free).
- Connect 3 phase voltages and currents as per the diagram shown on the back panel.
- After power “ON” upper display shows EAPL and lower display shows PUCD.
- After specified power On-Delay the upper display starts showing voltage & current values in scrolling fashion.
- The Lower Display shows the Parameter Ex: “r – U”, “y – U”, “b –U” ,“r – A”, “y – A”, “b – A” in scrolling fashion.
- Press the MENU Button.

The Lower Display shows “ **nUOL**” i.e Nominal Voltage.

By Pressing “INC” or “DEC” key on front panel you can set any of these 220/230/240/250 as your nominal voltage.

- After setting Nominal Voltage.

Press the Menu Button.

The Lower Display shows “ **OUOL**” (**Over Voltage**).

By Pressing “INC” or “DEC” key on front panel you can set any of these values from 5 to 60V

Similarly set the other parameters as shown in the chart.

PARAMETERS	PRESS MENU BUTTON AND LOWER DISPLAY SHOWS FOLLOWING PARAMETERS	UPPER DISPLAY WILL SHOW THE RESPECTIVE PARAMETER VALUE AND PRESS INC/DEC KEY TO SET THE VALUE.
UNDER VOLTAGE	UUOL	V 5–60 OF Nominal Voltage
CT PRIMARY	CT-P	5-500(in steps of 5)
NOMINAL CURRENT	NCRT	0.1 – 500 A
OVER CURRENT	OCRT	P 105% to 120%
UNDER CURRENT	UCRT	P 70% to 95%
PHASE UNBALANCE	PUBL	P 1-20%
TRIP DELAY OVER VOLTAGE	TDOV	1-250sec
TRIP DELAY UNDER VOLTAGE	TDUV	1-250sec
TRIP DELAY OVER CURRENT	TDOC	1-250sec
TRIP DELAY UNDER CURRENT	TDUC	1-250sec
TRIP DELAY UNBALANCE	TDUB	1-250sec
OVER VOLTAGE BYPASS	BYPS	OVL Y/n
UNDER VOLTAGE BYPASS	BYPS	UVL Y/n
OVER CURRENT BYPASS	BYPS	OCt Y/n
UNDER CURRENT BYPASS	BYPS	UCt Y/n
UNBALANCE BYPASS	BYPS	UBL Y/n

- Remove the short terminal 5 & 6 to lock the set program.
- Restart the unit, once the programming is over.

CAUTION:

This PVIMD is basically developed for motor protection.

In our studies we find that, motor characteristic varies depending upon the usage and type of motor.

The condition which we could simulate in laboratory and input given by known user are taken care.

There can be many more factors which have missed our attention/ cannot be created in laboratory.

It is responsibility of enduser to evaluate the product before adopting it, hope that it will meet your requirement but caution is important and EAPL is not responsible for consequential damages

Note: Connect RC Filter across load/ the contactor controlling load, to avoid electrical noise influences.

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