

# DIGITAL REVERSE POWER RELAY



# DIGITAL REVERSE POWER RELAY

Prok dv's®

An ISO 9001 : 2008 Company

DIGITAL MICROPROCESSOR BASED REVERSE POWER  
RELAY(RPR) IEEE DEVICE CODE -32

## Features

- Microcontroller based, hence accurate and precise.
- Protection of Generator / Prime movers against reverse power
- Visual indication of power, pick-up and relay tripping.
- Display of reverse power on the LCD.
- Continuous display of sensing voltage, current, frequency and power factor with lead/lag indication.
- Wide Auxiliary voltage range from 85-275V AC/DC.
- Cost effective and highly reliable compact design.
- Test Facility, allowing the user to check the NO and NC contacts of the relay.

## Applications

- Protection of Generator and Prime Mover/ Turbine.

## Specifications

Rated Current	: 5Amps
Trip Level	: 4 % – 20 % in Steps of 1%
Delay	: 0 – 20 Sec in Steps of 0.1 Sec
Sensing Voltage Range	: 50 – 500V
Frequency Range	: 40 – 60 Hz
Auxiliary supply	: 85-275V AC/DC
Out put Relay	: 2 C/O,250V, 8A AC 30V, 8A DC
Operating Temperature	: -5°C to +55°C
Panel cut out	: 137 x 137+0.1mm
Enclosure Dimensions	: 144 x 144 x 105 mm

## Setting Procedure

Step 1: Connect the auxiliary supply, sensing voltages and currents to the Digital Microprocessor Based Reverse Power Relay(RPR).The display shows Prok Dv's

RPR In-5A

After few seconds, the display shows the sensing voltage, current, frequency and power factor.

V=220V F=49.9Hz  
I=5.00A PF+0.95

Step 2: To enter the setting mode, press the mode/set key. At first display comes for setting of reverse current. The display shows

In 10%  
Range [4 - 20]%

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Range is from 4% to 20% at steps of 1% Press the increment and decrement key to make the desired setting

Delay 0.5sec  
Range [0 - 20]sec

Press the set key to store the value. Then display shows as shown Range is from 0 sec to 20 sec at steps of 0.1 sec

Press the increment and decrement key to make the desired setting.

Press the set key to store the value. Then display shows for a while and then displays the sensing voltage, current, frequency and Power Factor.

V=220V F=49.9Hz  
I=5.00A PF+0.95

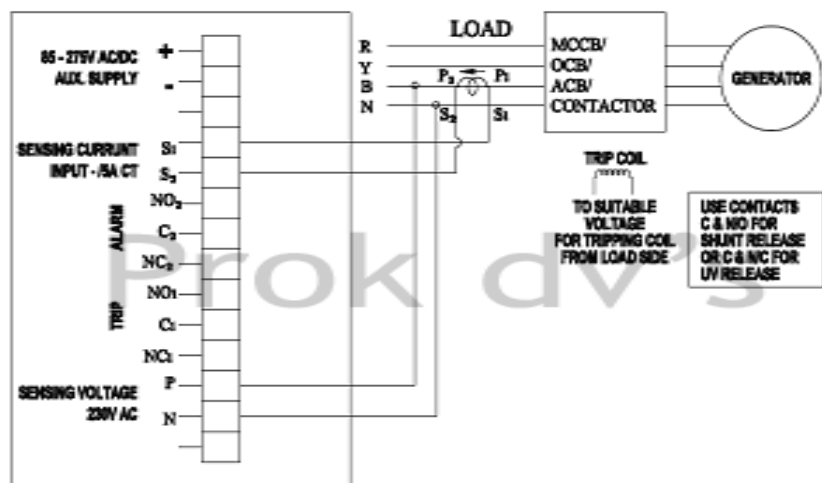
## Relay Testing

Press and hold the Decrement / Test key for 3 seconds. The Digital Microprocessor Based Reverse Power Relay (RPR) goes into the test mode. The display shows

Relay Test  
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At first the Digital Microprocessor Based Reverse Power Relay (RPR) trips, then the GREEN LED switches OFF and at last the RED LED switches ON, with a definite time gap of 2 seconds. It goes to LOCK MODE. The Relay Test blinks till the RESET key is pressed.

## MECHANICAL DIMENSIONS DIGITAL MICROPROCESSOR BASED REVERSE POWER RELAY(RPR)



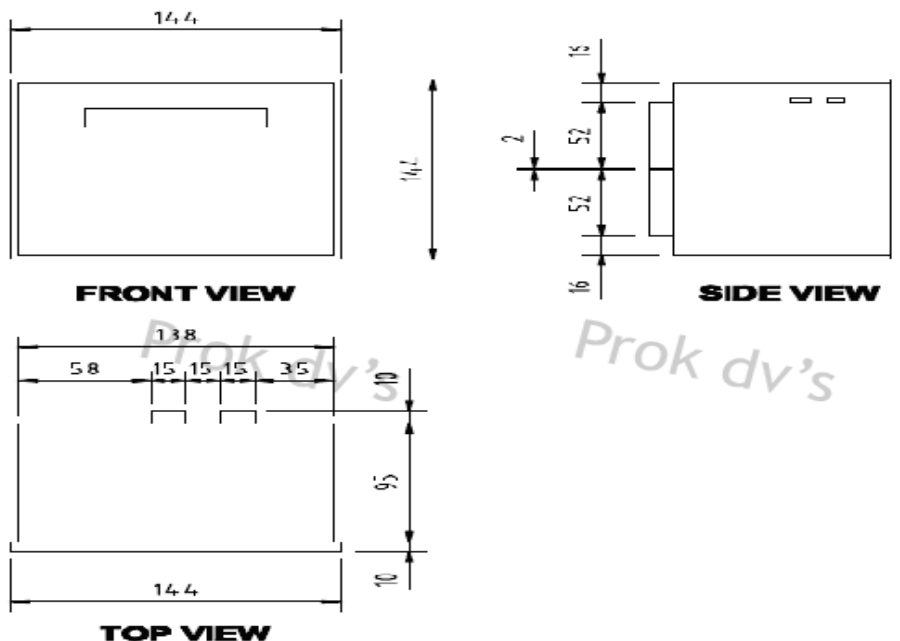
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WIRING DIAGRAM DIGITAL MICROPROCESSOR  
BASED REVERSE POWER RELAY(RPR)



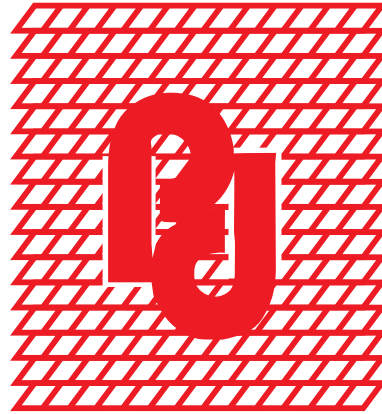
**NOTE: ALL DIMENSIONS ARE IN MM  
TOLERANCE:- ± 1MM**

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