

Terminal Protection to IP20



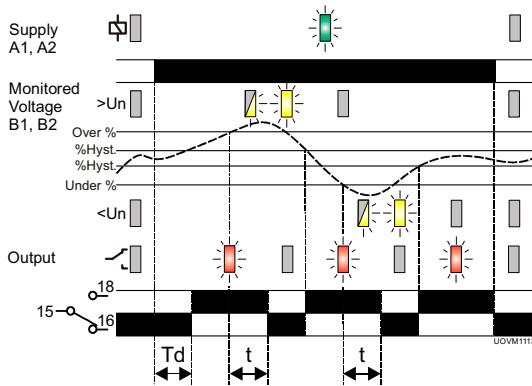
Dims: to DIN 43880
W. 17.5mm

- True R.M.S. monitoring
- 7 Selectable Nominal voltage ranges (12 – 240V AC/DC)
- Window operation Under and Over voltage monitoring
- Adjustable Under and Over voltage trip levels
- Adjustable time delay
- 1 x SPDT relay output 8A
- Green LED indication for supply status
- Separate Yellow LED indication for Under or Over voltage condition
- Isolated Auxiliary supply (24 – 230V AC/DC)



FUNCTION DIAGRAM

Under and Over Voltage Monitoring



TECHNICAL SPECIFICATION

Auxiliary supply voltage U (A1, A2):	24 – 230V AC/DC			
Frequency range:	48 - 63Hz (AC supplies)			
Supply variation:	+15%/-10%			
Overvoltage category:	III (IEC 60664)			
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664			
Power consumption (max.):	24V	48V	115V	230V
	AC: 0.84 VA	0.82 VA	1.1 VA	1.4 VA
	DC: 0.6 W	0.47 W	0.46 W	0.53 W

Monitoring mode:	Under and Over voltage (Window)
Hysteresis:	2% fixed
Selectable nominal voltages (Un):	12, 24, 48, 110, 115, 230, 240VAC
Under trip level adjustment:	70 – 95% of Un
Over trip level adjustment:	105 – 130% of Un
Time delay (t):	0.1 – 30S (from fault occurring to relay de-energising)
Power up delay (Td):	1 second (fixed)
Reset time:	100ms
Accuracy:	± 1% of maximum full scale
Adjustment accuracy:	< 5% of maximum full scale
Repeat accuracy:	± 0.5% at constant conditions
Drift with temperature:	± 0.05% / °C
Drift with voltage:	± 0.2% / V

Monitoring input (B1, B2):	0.2 to 350V AC/DC
Frequency:	DC, 48 – 500Hz
Maximum input rating:	500V
Overload:	1kV for 1s
Overvoltage category:	III (IEC 60664)
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664
Power on indication:	Green LED
Under voltage trip indication:	Red LED
Over voltage trip indication:	Red LED

Ambient temp:	-20 to +60°C
Relative humidity:	+95%
Output (15, 16, 18):	SPDT relay
Output rating:	AC1 250V 10A (2500VA) AC15 250V 5A (no), 3A (nc) DC1 25V 10A (250W)

Electrical life:	≥ 150,000 ops at rated load
Dielectric voltage:	2kV AC (rms) IEC 60947-1
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664
Housing:	Grey flame retardant UL94 V0
Weight:	63g
Mounting option:	On to 35mm symmetric DIN rail to BS EN 60715 or direct surface mounting via 2 x M3.5 or 4BA screws using the black clips provided on the rear of the unit

Terminal conductor size	≤ 2 x 2.5mm ² solid or stranded
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Approvals: **UL** US LISTED IND. CONT. EQ. E111187
CE, UKCA and RoHS Compliant.
EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 10V/m 80MHz - 2.7GHz)
Emissions: EN 61000-6-4

INSTALLATION AND SETTING

Installation work must be carried out by qualified personnel.

- BEFORE INSTALLATION, ISOLATE THE SUPPLY.
- Connect the Auxiliary and Monitored Inputs as required.

Setting the unit.

- Set the "Nominal voltage" selector **8** to the match that of the voltage being monitored on terminals B1 and B2.
- Set the "Under %" **5** and "Over %" **7** trip levels as required. These are scaled as a % of the selected nominal voltage.
- Set the "Delay" **6** as required.

Applying power.

- Apply power and the green LED **1** will illuminate. Both yellow LED's will remain extinguished and the relay will energise. The red LED **2** will also illuminate.

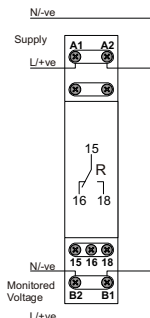
Under voltage condition:

- If the monitored voltage falls below the "Under %" trip level the yellow "<Un" LED **3** will start flashing. The relay will de-energise and red LED extinguish after the delay period "t" has elapsed. The yellow LED will then remain illuminated to indicate an under voltage condition. The relay will re-energise/red LED illuminate (and yellow LED extinguish) when the voltage rises above the trip level plus the hysteresis

Over voltage condition:

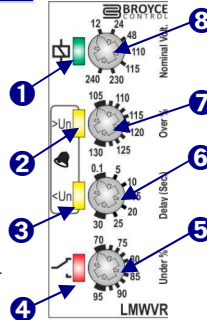
- If the monitored voltage rises above the "Over %" trip level the yellow ">Un" LED **4** will start flashing. The relay will de-energise and red LED extinguish after the delay period "t" has elapsed. The yellow LED will then remain illuminated to indicate an over voltage condition. The relay will re-energise/red LED illuminate (and yellow LED extinguish) when the voltage falls below the trip level minus the hysteresis.

CONNECTION DIAGRAM

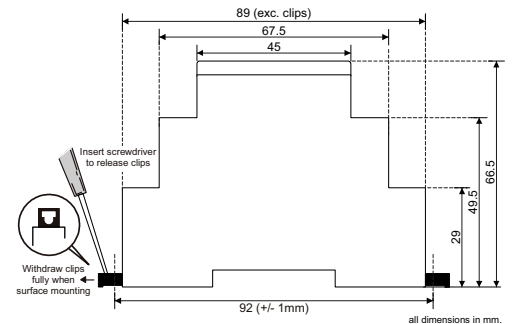


SETTING DETAILS

- Power supply status (Green) LED
- Over voltage trip indication (Yellow) LED
- Under voltage trip indication (Yellow) LED
- Relay energised (Red) LED
- Under voltage trip level adjustment
- Time delay adjustment
- Over voltage trip level adjustment
- Nominal voltage selector



DIMENSIONS



The Information provided in this literature is believed to be accurate (subject to change without prior notice); however, use of such information shall be entirely at the user's own risk.