

HRN-54, HRN-54N | Voltage monitoring relays in 3P with adjustable levels



EAN code
 HRN-54: 8595188137201
 HRN-54N: 8595188137218

Technical parameters	HRN-54	HRN-54N
Supply and measuring:	L1, L2, L3	L1, L2, L3, N
Supply terminals:	L1, L2, L3	L1, L2, L3, N
Supply/measured voltage:	3x 400 V (50-60 Hz)	3x 400 V/230 V (50-60 Hz)
Burden:	max. 2 VA/1 W	
Max. dissipated power (Un + terminals):	1 W	
Level Umax:	105 - 125 % Un	
Level Umin:	75 - 95 % Un	
Hysteresis:	2 %	
Max. permanent overload:	AC 3x 460 V	AC 3x 265 V
Peak overload <1ms:	AC 3x 500 V	AC 3x 288 V
Time delay T1:	max. 500 ms	
Time delay T2:	adjustable 0.1-10 s	

Output	
Number of contacts:	1x changeover/SPDT (AgNi/Silver Alloy)
Current rating:	8 A/AC1
Breaking capacity:	2000 VA/AC1, 240 W/DC
Inrush current:	10 A
Switching voltage:	250 V AC/24 V DC
Indication of state:	red LED
Mechanical life:	60.000.000 ops.
Electrical life (AC1):	150.000 ops.

Other information	
Operating temperature:	-20 °C to 55 °C (-4 °F to 131 °F)
Storage temperature:	-30 °C to 70 °C (-22 °F to 158 °F)
Electrical strength:	4 kV (supply - output)
Operating position:	any
Mounting:	DIN rail EN 60715
Protection degree:	IP40 from front panel/IP10 terminals
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm²):	solid wire max. 2x 2.5 or 1x 4/ with sleeve max. 1x 2.5 or 2x 1.5 (AWG 12)
Dimensions:	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")
Weight:	62 g (2.19 oz.) 63 g (2.22 oz.)
Standards:	EN 60255-1, EN 60255-26, EN 60255-27

Function description

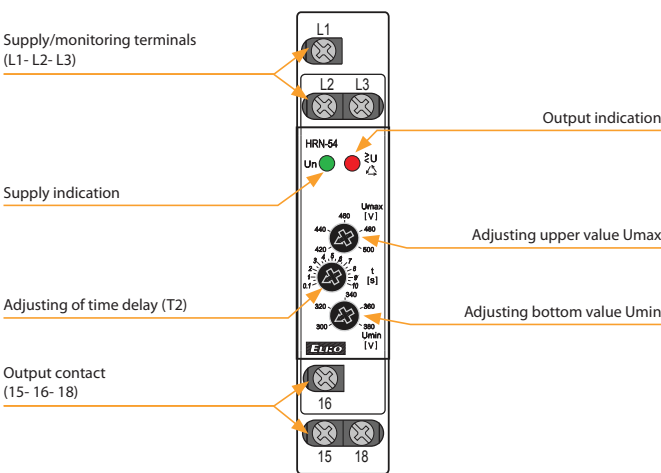
Relay in 3-phase main monitors size of phase voltage. It is possible to set two independent voltage levels and thus it is possible to set two independent voltage levels and monitor e.g. undervoltage and overvoltage independently. In normal state when voltage is within set levels, output relay is closed and red LED shines. In case voltage exceeds or falls below the set levels, output relay opens and red LED shines (LED indicates faulty state - flashes when timing).

In case supply voltage falls below 60 % Un (U_{OFF} lower level) relay immediately opens without delay and faulty state is indicated by red LED.

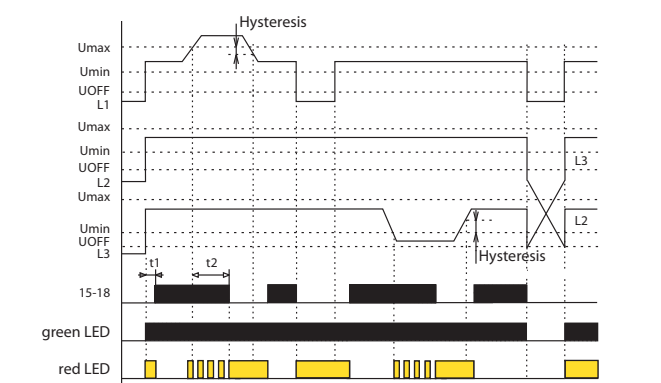
In case timing is in progress and faulty state is indicated, timing is immediately stopped.

- It serves to monitor voltage, phase failure and sequence in switchboards, protection of devices in 3-phase mains.
- It is possible to set upper and lower level of monitoring voltage.
- Adjustable time delay eliminates short voltage peaks and failures in the main.
- In case supply voltage falls below 60 % Un (U_{OFF} lower level) relay immediately opens without delay.
- **HRN-54:** supply from all phases which means that relay is functional also in case when one phase is faulty.
- **HRN-54N:** supply L1, L2, L3-N, means that relay monitors also failure of neutral wire.

Description



Function



Connection

