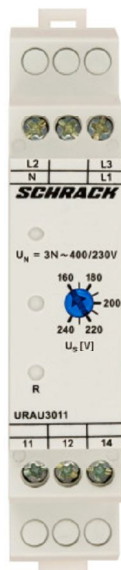


■ Datasheet: Voltage monitoring relay with adjustable voltage, series AMPARO



■ SCHRACK-INFO

- Undervoltage monitoring 1- and 3-phasing with adjustable threshold
- Supply voltage 400/230 V AC, Supply voltage = measured voltage
- Connection of neutral is necessary
- 1 CO, 5A

■ Technical datas

Input circuit	
Terminals	L1-L2-L3-N
Supply voltage	400/230 V AC
Voltage supply tolerance	-30 / +15 %
Rated frequency	50 / 60 Hz
Duty cycle	100 %
Bridging time	10 ms
Reset time	500 ms
Drop-away voltage	<30%
Power loss	0,8 W

Measuring circuit		
Terminals	L1-L2-L3-N	
Measure	Voltage 3-phase	
Measurement methods	Rectified value	
Monitoring function	Undervoltage	
Measuring range	U _n = 400/230 V AC	
Overload	(= supply voltage)	
Thresholds	Max	240 V
	Min	160 V
	adjustable	yes
	asymmetrie	-
Hysteresis	5 %	

Time circles		
On delay	fixed	appr. 400 ms
Off delay	< 250 ms	

Indicator		
Relay status	LED R (yellow) on	Relay is on

Output circuit		
Terminals	11-12-14	
Type	Relay	
Number of contacts	CO	1
Contact material	AgNi	
Rated voltage	250 V	
Max. switching voltage	250 V	
Max. switching current	5A	
Rated current	5 A / 250 V	
Lifetime	mechanical	1 x 10 ⁶ operation cycle
	electrical (AC-1)	1 x 10 ⁵ operation cycle
Switching frequency	with load	6/min
	without load	300/min
Back up fuse	5A fast acting	

Accuracy		
Basic accuracy	< 5 %	
Setting accuracy	-	
Repeatability	< 1 %	
Influence of temperature	< 0,05 % / °C	
Influence of voltage	-	
Frequency influence	-	

Standards		
Product standards		EN 61010-2-201: 2013
Immunity	EN 61326-1	Basic electromagnetic environment
Emission	EN 61326-1	Class B

Datas of insulation		
Pollution degree (IEC 61010-2-201)		2
Overvoltage category (IEC 61010-2-201)		II
Rated insulation voltage (IEC 61010-2-201)	Input circuit / outout circuit	300 V
Rated surge voltage (IEC 61010-2-201)	Input circuit / outout circuit	2.500 V
Insulation-test-voltage (IEC 61010-2-201)	Input circuit / outout circuit	1.500 V
Insulation	Input circuit / outout circuit	Basic insulation

Electrical connection		
Terminal design		Screw-terminal
Terminal capacity	Rated terminal capacity	2,5mm ²
	Max. terminal capacity flexible with/without ferrule	1x 0,25 ... 2,5 mm ² (23 AWG ... 14 AWG)
	flexible without sleeve	2x 0,25 ... 1,5 mm ² (23 AWG ... 14 AWG)
	flexible with twin-sleeve	2x 0,25 ... 1,5 mm ² (23 AWG ... 14 AWG)
	Stranded without sleeve	1x 0,25 ... 2,5 mm ² (23 AWG ... 14 AWG)
Length without insulation		7 mm
Tightening torque		max. 0,5 Nm

Mechanical datas		
Ambient temperature	Operation	-25 ... +50 °C
Dimensions (accord. DIN 43880)	LxHxD	17,5 x 97 x 57,9 mm
Mounting		DIN-rail (EN 60715)
Installation position		In any order
Protection class	Cover	IP40
	Terminals	IP20

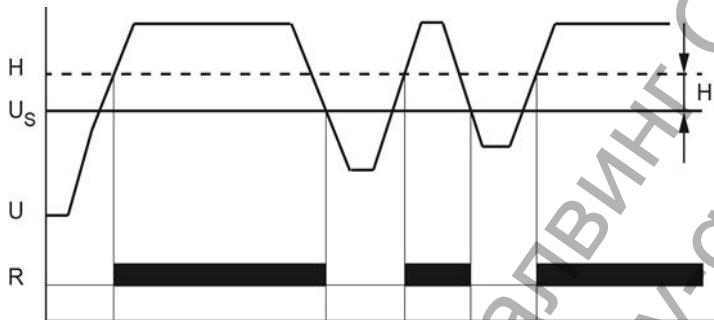
Function

Undervoltage monitoring for 3-phase AC mains with variable threshold voltage U_S and fixed hysteresis.

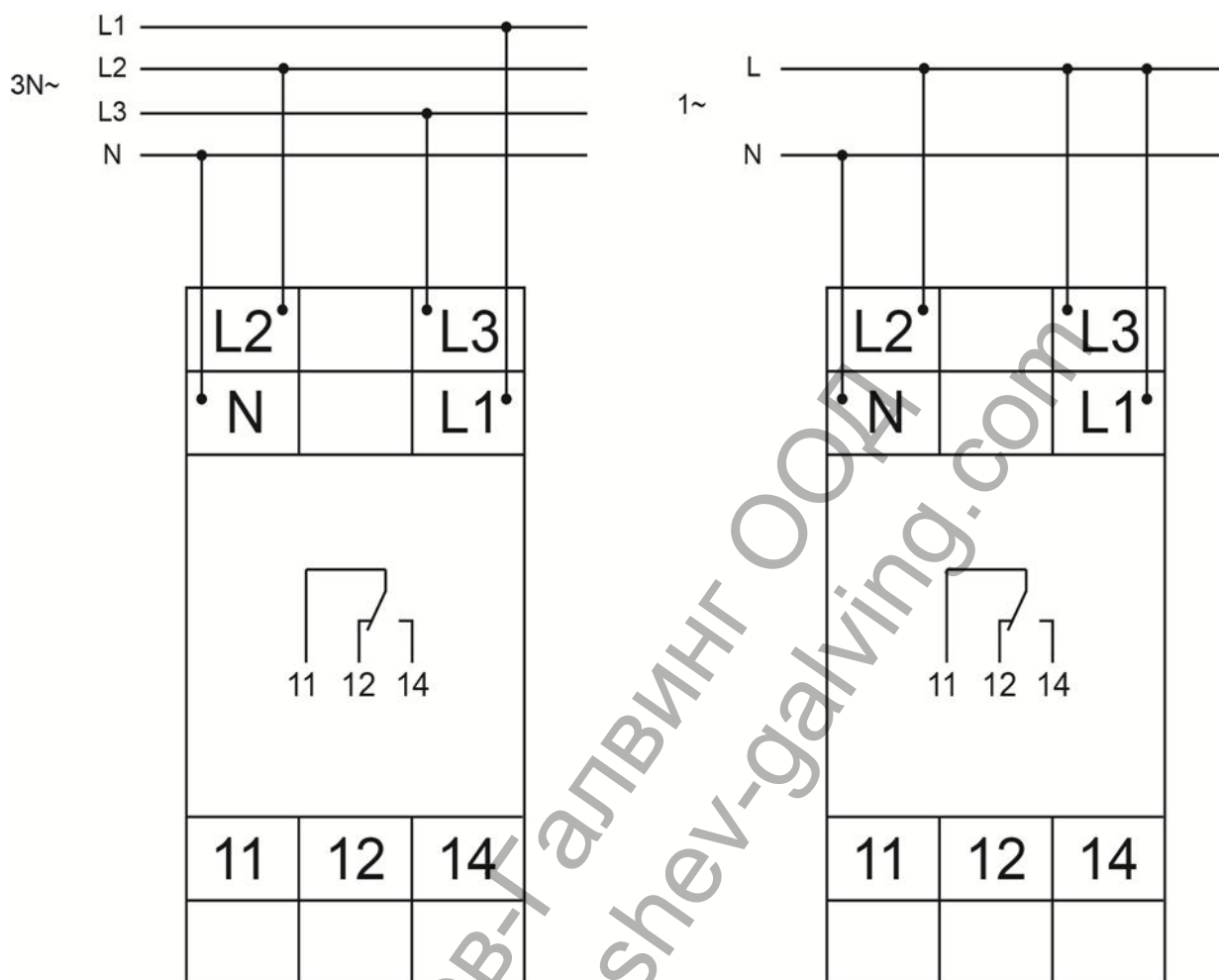
All measuring inputs (L1, L2 and L3) must be connected to phase voltage. If single-phase monitoring is required, unused input terminals (L) must be connected to mains voltage to have proper L-N voltage on the terminals L1, L2 and L3. A phase failure can not be detected, if the reverse voltage coming from the load exceeds the threshold U_S relay.

Undervoltage monitoring

The output relay R switches into on-position (yellow LED illuminated), when the measuring voltage of all connected phases exceeds the fixed threshold U_S by more than the fixed hysteresis H. When the voltage of one of the connected phases (L1, L2 or L3) falls below the fixed threshold, the output relay R switches into off-position again (yellow LED not illuminated).

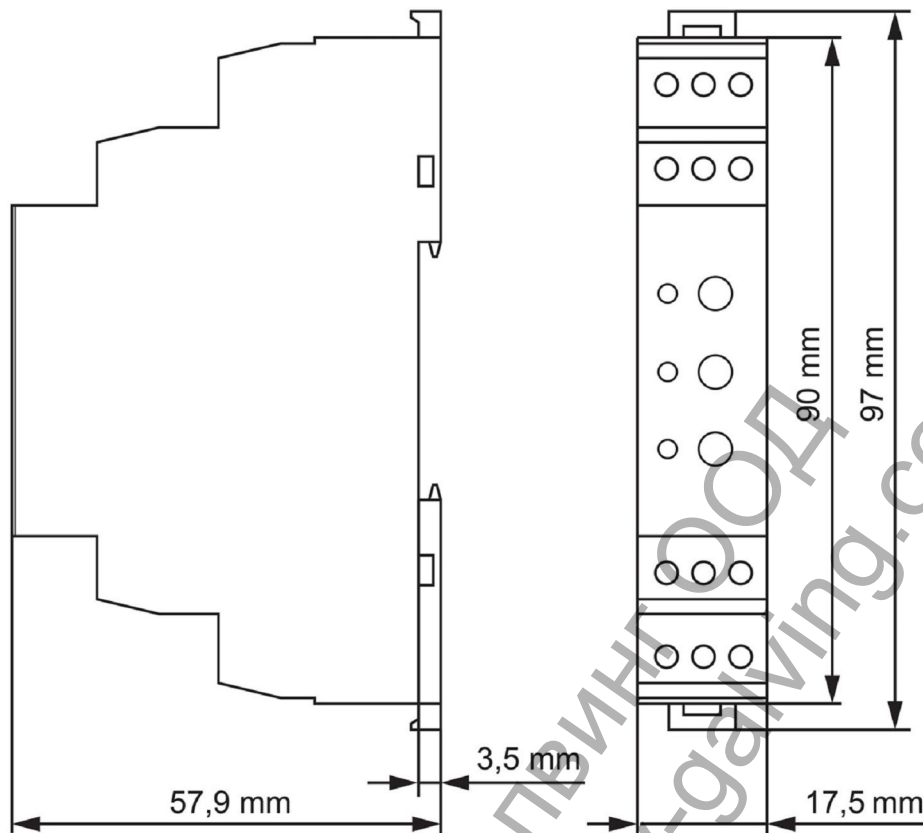


■ Wiring diagram



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▀ Dimensions



▀ Articles

Description	Orderno.
Voltage monitoring relay with adjustable voltage 160-240V, series AMPARO,	URAU3011--