AC/DC voltage monitoring in 1-phase mains

E1UU230V01

Monitoring relays - ENYA series

Undervoltage monitoring

1 change over contact

Width 17.5 mm

Installation design



Technical data

1. Functions
AC/DC undervoltage monitoring in 1-phase mains with adjustable threshold and fixed hysteresis.

UNDER	Undervoltage monitoring

2. Time ranges

	Adjustment range
Tripping delay (Delay):	-

3. Indicators

Green LED ON/OFF:	indication of supply voltage
Yellow LED ON/OFF:	indication of relay output

4. Mechanical design
Self-extinguishing plastic housing, IP rating IP40
Mounted on DIN rail TS 35 according to EN 50022
Mounting position: any
Shockproof terminal connection according to VBG 4 (PZ1 required), IP rating IP20
Tightening torque: max. 1Nm
Terminal capacity:
- 1 x 0.5 to 2.5mm² with/without multicore cable end
- 1 x 4mm² without multicore cable end
- 2 x 0.5 to 1.5mm² with/without multicore cable end
- 2 x 2.5mm² flexible without multicore cable end

5. Input circuit

Supply voltage:		(= measuring voltage)
Terminals:		
	230V AC E-F3	
	24V AC E-F2	(distance > 5mm)
	24V DC E-F1(+)	
Rated voltage Un:		see table ordering information or printing on the unit
Tolerance:		-25% to +20% of Un
Rated consumption:		
	230V AC 10VA (0.6W)	
	24V AC 1.3VA (0.8W)	
	24V DC 0.6W	
Rated frequency:		AC 48 to 63Hz
Duration of operation:		100%
Reset time:		500ms
Wave form:		DC, AC Sinus
Hold-up time:		-
Drop-out voltage:		>60% of supply voltage
Overvoltage category:		III (according to IEC 60664-1)
Rated surge voltage:		4kV

6. Output circuit
1 potential free change over contact

Rated voltage:	250V AC
Switching capacity:	1250VA (5A / 250V)
Fusing:	5A fast acting
Mechanical life:	20 x 10^6 operations
Electrical life:	2 x 10^5 operations at 1000VA resistive load
Switching frequency:	max. 60/min at 100VA resistive load max. 6/min at 1000VA resistive load (according to IEC 947-5-1)
Overvoltage category:	III. (according to IEC 60664-1)
Rated surge voltage:	4kV

7. Measuring circuit

Measuring variable:		DC or AC Sinus, 48 to 63Hz
Measuring input:		(= supply voltage)
Terminals:		
	230V AC E-F3	
	24V AC E-F2	Distance between the devices musst be greater than 5mm!
	24V DC E-F1(+)	
Overload capacity:		120% of Un
Input resistance: -		
Switching threshold Us:		see table ordering information or printing on the unit
Hysteresis H:		see table ordering information or printing on the unit
Overvoltage category:		III (according to IEC 60664-1)
Rated surge voltage:		4kV

8. Accuracy

Base accuracy:	≤5% of nominal value
Adjustment accuracy:	±5% of nominal value
Repetition accuracy:	≤2% of nominal value
Voltage influence:	-
Temperature influence:	≤0,05% / °C

9. Ambient conditions

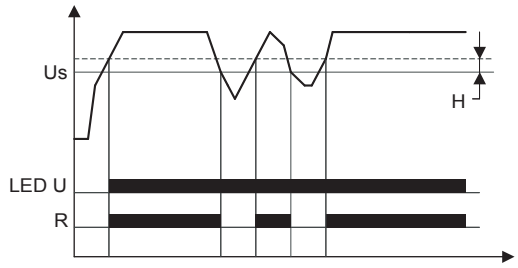
Ambient temperature:	-25 to +55°C (according to IEC 68-1)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (according to IEC 721-3-3 class 3K3)
Pollution degree:	2, if built in 3 (according to IEC 664-1)
Vibration resistance:	10 to 55 Hz 0.35mm (according to IEC 68-2-6)
Shock resistance:	15g 11ms (according to IEC 68-2-27)

10. Weight

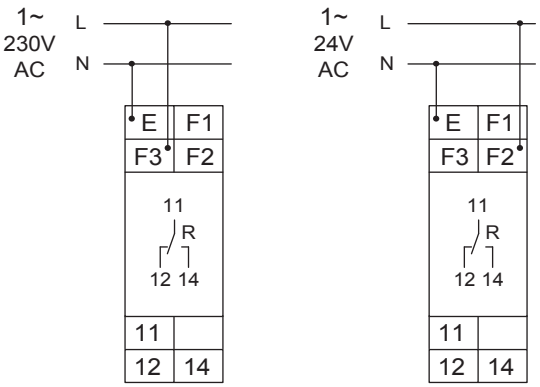
Single packing:	74g
Package of 10pcs:	676g per Package

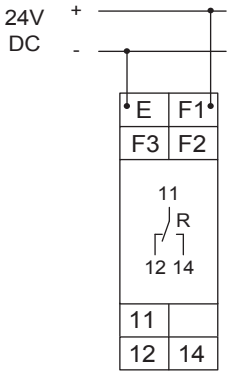
Functions

Untervoltage monitoring (UNDER)
When the supply voltage U is applied, the output relay R switches into on-position, if the measured voltage is beyond the adjusted value. When the measured voltage falls below the adjusted value, the output relay R switches into off-position. The output relay R switches into on-position again, if the voltage exceeds the adjusted value plus the hysteresis.

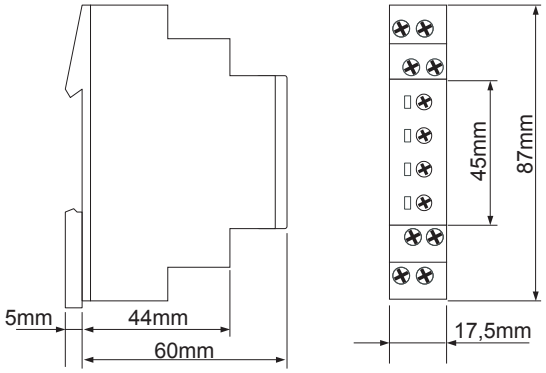


Connections





Dimensions



Ordering information

Types	Rated voltage U_N	Functions	Switching threshold U_s	Delay	Hysteresis	Part. No.
E1UU230V01	24V AC/DC 230V	U	Min 5% to 115% of U_N	-	fixed 5%	1340102