AC/DC voltage monitoring in 1-phase mains **E1IUM230V01**

Monitoring relays - ENYA series
Multifunction
1 change over contact
Width 17.5 mm
Installation design

Technical data

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

UNDER	Undervoltage monitoring
WIN	Monitoring the window between Min and Max

2. Time ranges

	Adjustment range
Start-up suppression time (Start):	-
Tripping delay (Delay):	-

3. Indicators

Green LED ON/OFF:	indication of supply voltage
Red LED ON/OFF:	indication of failure of the corresponding threshold
Yellow LED ON/OFF:	indication of output relay

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 2.5mm^2 with/without multicore cable end
- 1 x 4mm^2 without multicore cable end
- 2 x 0.5 to 1.5mm^2 with/without multicore cable end
- 2 x 2.5mm^2 flexible without multicore cable end

5. Input circuit

Supply voltage:	(= measuring voltage)
Terminals:	
230V AC	E-F3
24V AC	E-F2
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:	determined by undervoltage detection (see measured circuit)
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:	20×10^6 operations
Electrical life:	2×10^5 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

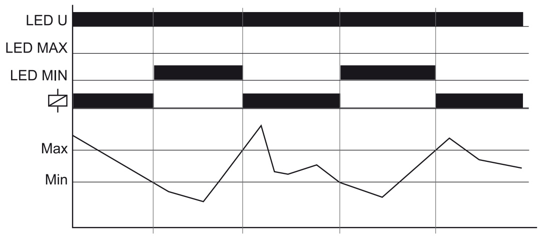
Ambient temperature:	-25 to +55°C (according to IEC 68-1)
Storage temperature:	-25 to +70°C
Transport temperature:	-25 to +70°C
Relative humidity:	15% to 85% (according to IEC 721-3-3 class 3K3)
Pollution degree:	2, if built in 3 (according to IEC 664-1)
Vibration resistance:	10 to 55 Hz 0.35mm (according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

10. Weight

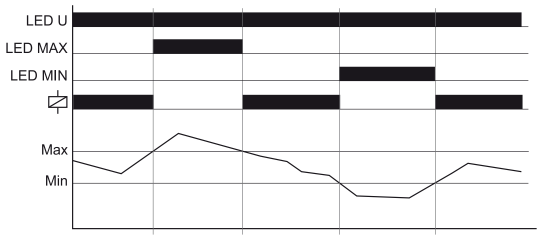
Single packing :	75g
Package of 10pcs:	684g per package

Functions

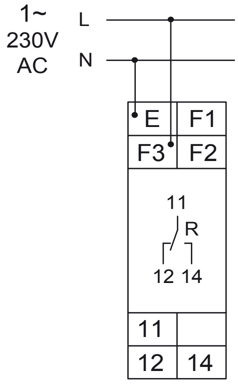
Undervoltage monitoring (UNDER)
When the supply voltage U is applied, the output relay R switches into on-position, if the measured voltage is beyond the Min-value.
When the measured voltage falls below the Min-value, the output relay R switches into off-position. The output relay R switches into on-position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

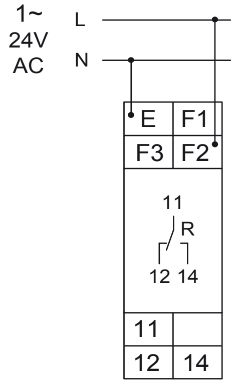


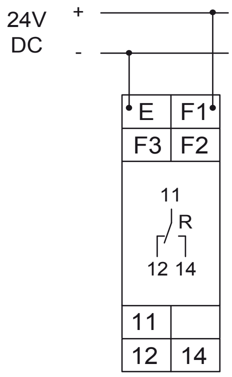
Window function (WIN)
When the supply voltage U is applied, the output relay R switches into on-position, if the measured voltage is within the adjusted window.
When the measured voltage left the window between Min and Max, the output relay R switches into off-position. The output relay R switches into on-position again, if the voltage re-enter the adjusted window.



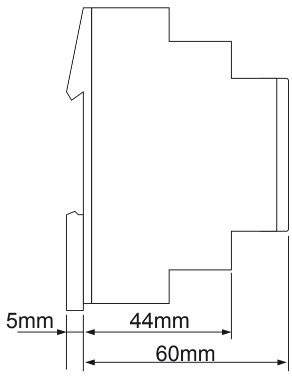
Connections

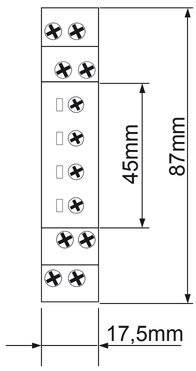






Dimensions





Ordering information

Types	Rated voltage U_N	Functions	Switching threshold U_s	Delay	Hysteresis	Part. No.
E1IUM230V01	24V AC/DC 230V	U. W	Max 80% to 120% of U_N Min 75% to 115% of U_N	-	adjustable	1340101

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Subject to alterations and errors

Technik Braucht Kontrolle