

- ▶ Industrial design
- ▶ Width 45mm
- ▶ AC/DC voltage monitoring in 1-phase mains
- ▶ 2 change over contacts



Technical data

1. Functions

AC/DC voltage monitoring in 1-phase mains inside the window between U_{min} and U_{max} with adjustable thresholds, timing for start-up suppression and tripping delay separately adjustable

2. Time ranges

	Adjustment range	
Start-up suppression time:	0.5s	5s
Tripping delay:	0.5s	5s

3. Indicators

Green LED ON:	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
 Initial 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:	12 to 440V AC	terminals A1-A2 (galvanically separated) selectable via transformer modules TR3
Tolerance:		-15% to +10%
Rated frequency:		48 to 63Hz
Rated consumption:		4VA (3W)
Duration of operation:		100%
Reset time:		500ms
Residual ripple for DC:		-
Drop-out voltage:		>30% of the supply voltage

6. Output circuit

2 potential free change over contacts	
Switching capacity:	1500VA (6A / 250V)
Fusing:	6A 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)
Insulation voltage:	250V AC (according to IEC 664-1)
Surge voltage:	4kV, overvoltage category III (according to IEC 664-1)

7. Measuring circuit

Input:	100mV AC/DC	terminals e-f	(UW100mV4X)
	5V AC/DC	terminals e-f	(UW5V4X)
	50V AC/DC	terminals e-f	(UW50V4X)
	450V AC/DC	terminals e-f	(UW450V4X)
Overload capacity:	100mV AC/DC	5V	(UW100mV4X)
	5V AC/DC	15V	(UW5V4X)
	50V AC/DC	250V	(UW50V4X)
	450V AC/DC	600V	(UW450V4X)
Input resistance:	100mV AC/DC	900Ω	(UW100mV4X)
	5V AC/DC	30kΩ	(UW5V4X)
	50V AC/DC	300kΩ	(UW50V4X)
	450V AC/DC	3MΩ	(UW450V4X)

Switching threshold U_{max} :

100mV AC/DC	10 to 100mV AC/DC (UW100mV4X)
5V AC/DC	0.5 to 5V AC/DC (UW5V4X)
50V AC/DC	5 to 50V AC/DC (UW50V4X)
450V AC/DC	50 to 450V AC/DC (UW450V4X)

U_{min} : 10% to 90%

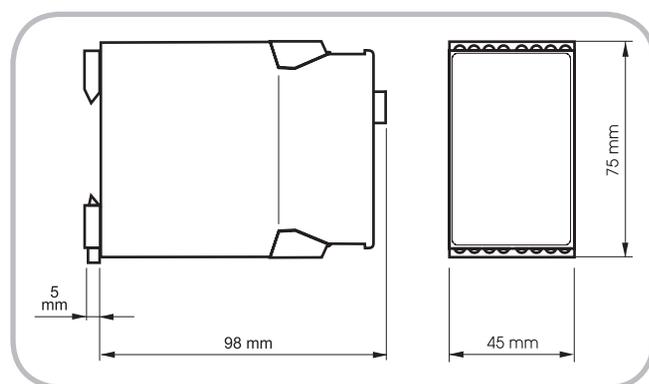
8. Accuracy

Base accuracy:	-
Adjustment accuracy:	≤5% (of maximum scale value)
Repetition accuracy:	≤1%
Voltage influence:	≤0.5%
Temperature influence:	≤0.1% / °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:	3 (according to IEC 664-1)

10. Dimensions



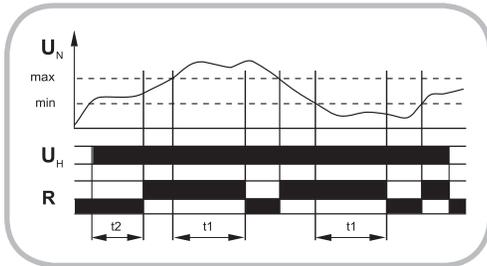
► Functions

AC/DC voltage monitoring in 1-phase mains inside the window between U_{min} and U_{max} with adjustable thresholds, timing for start-up suppression and tripping delay separately adjustable

When the supply voltage U is applied (green LED illuminated), the set interval of the start-up suppression (t_2) begins. Changes of the measured voltage during this period do not affect the state of the output relay.

Window function

The output relay R switches into on-position (yellow LED illuminated), when the measured voltage exceeds the value adjusted at the MIN-regulator. When the measured voltage exceeds the value adjusted at the MAX-regulator, the set interval of the tripping delay (t_1) begins. After the interval has expired, the output relay switches into off-position (yellow LED not illuminated). When the measured voltage falls below the maximum value, the output relay again switches into on-position (yellow LED illuminated). When the measured voltage falls below the minimum value, the set interval of the tripping delay begins. After the interval has expired, the output relay switches into off-position (yellow LED not illuminated).



► Connections

