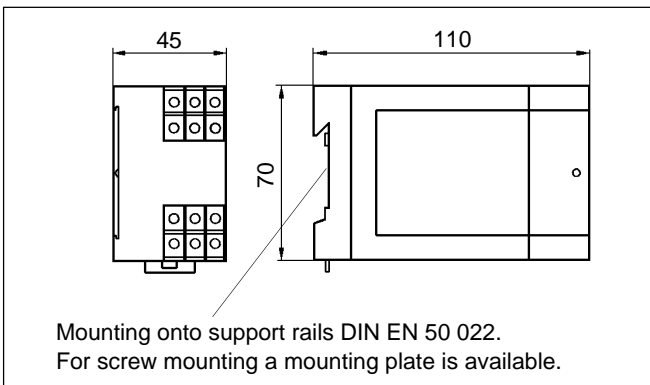


- Single Phase Circuits
- AC or DC Systems (Selectable)



- electronic measuring relay
- indicates under- or overvoltage
- impulse-voltage proof and HF-noise resistant
- output relay with two change-over contacts
- built-in operation-LED
- built-in indication-LED
- adjustable response value
- compact 45 mm casing
- response values:
 - 10 ... 30V
 - 20 ... 60 V
 - 50 ... 150 V
 - 120 ... 300 V

Dimension Diagram

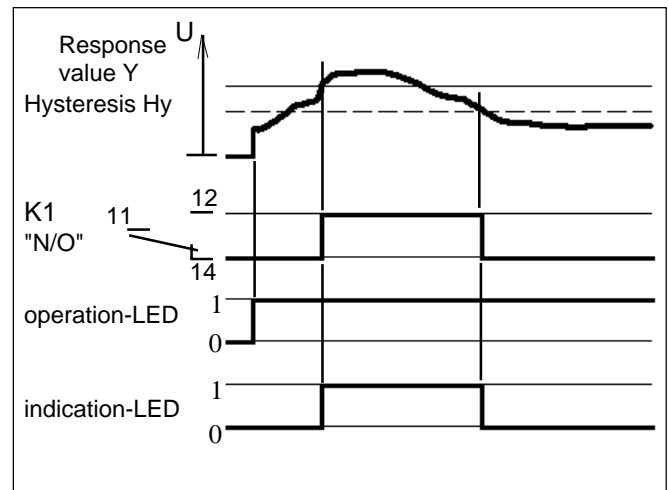


Function

1. Use as overvoltage relay

At nominal duty the output relay K1 is de-energized and the indication-LED "V>Y" is not illuminated.

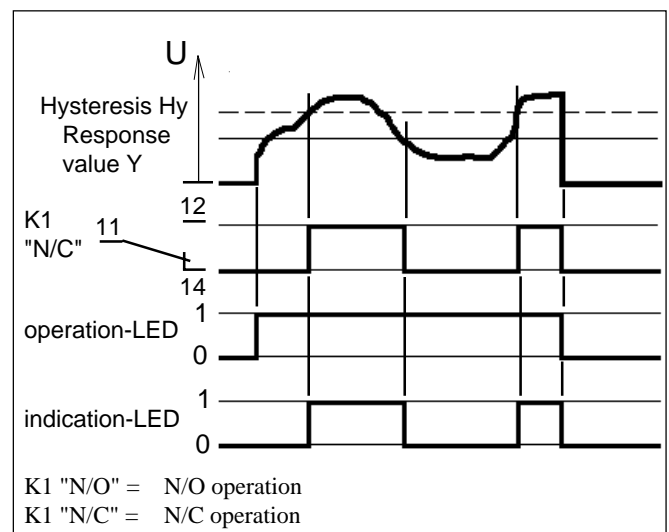
When the system voltage U exceeds the adjusted response value "Y", the output relay K1 operates and the indication-LED "V>Y" lights up.



2. Use as under voltage relay

At nominal duty the output relay K1 is energized and the indication-LED "V>Y" is lit up.

When the system voltage U falls below the adjusted response value "Y", the output relay drops out and the indication-LED "V>Y" extinguishes.



Technical Data SUA143

Nominal insulation voltage	AC 380 V
Contact circuits	AC 250 V
Insulation group	C
Test voltage	2500 V
Self-consumption	3 W, 3 VA

Rated mains voltage U_N				
UC 40...400 Hz	35 V	80 V	170 V	300 V
Response value	10-30 V	20-60 V	50-150 V	120-130 V

(steplessly adjustable)	
Temperature influence	<0.05% / °C
Switching hysteresis	3 %

OFF-delay approx.	120 ms
Repeat accuracy	< ± 1.5 %

Switch components	two free change-over contacts
Switch capacity max.	33 W, 1100 VA
Nominal contact voltage	230 V
Permanent current	5 A
Break capacity	
at AC 230 V and cos. phi = 0,4	3 A
at DC 110 V and L/R = 0	0.3 A

Operating principle	
undervoltage relay	N/C operation
overvoltage relay	N/O operation

Wiring diagram	Z 320 102
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Admissible ambient temperature	
when operating	-15°C ... +50°C / 258 K ... 323 K
when stored	-20°C ... +70°C / 253 K ... 343 K

Tests according to VDE 0435, part 303 and IEC 255-4	
Impulse voltage strength	class III
HF-noise resistance	class III
Climatic class according to DIN 40 040	F

Mounting	indifferent
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Type of connection	terminal screws with self-lifting clamp-washers
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Terminal screws	M 3.5
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Wire cross section	
single wire	2x (1 ... 1.5 mm ²) 16 AWG
fine braid with end sleeve	2x (0.75 ... 1.5 mm ²) 16 AWG

Protection class according to DIN 40 050	
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Internal components	IP 50
Terminals	IP 10
with terminal covers	IP 20

Casing	
Behavior in fire according to	UL 94 V - 0
Fixing	on supporting rail according to DIN EN 50 022 or screw mounting*

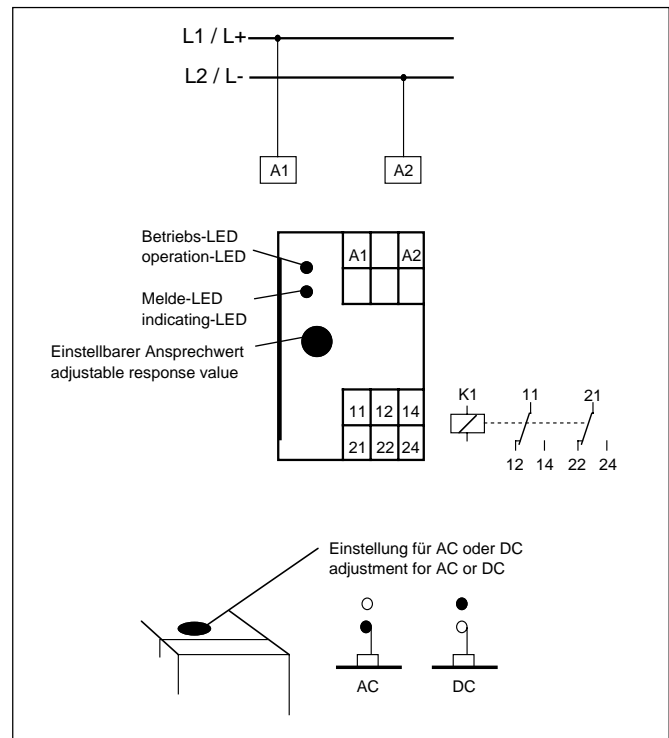
Weight	approx. 170 g
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* Accessories for screw mounting:
Mounting plate art.-no.: 300 102

Ordering details

Type	Response value	Art. No.
SUA143	UC 10...30 V	932 802
	UC 20...60 V	932 803
	UC 50...150 V	932 801
	UC 120...300 V	932 800

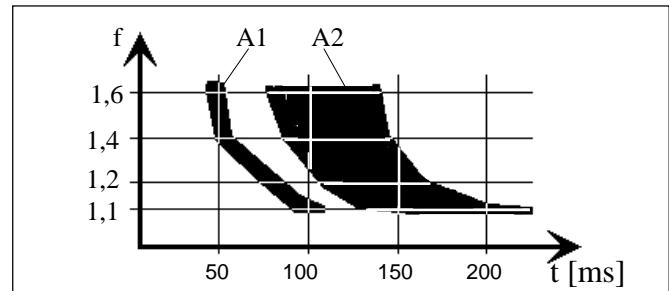
Wiring Diagram



Legend to wiring diagram

K1 Output relay with two free change over contacts

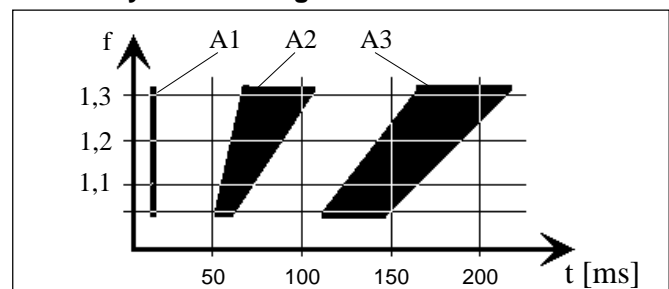
ON-delay overvoltage



A1 = Changing from 0 x Y to f x Y

A2 = Changing from 0,8 x Y to f x Y

OFF-delay under voltage



A1 = Changing from f x Y to 0 x Y

A2 = Changing from f x Y to 0,6 x Y

A3 = Changing from f x Y to 0,9 x Y

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