

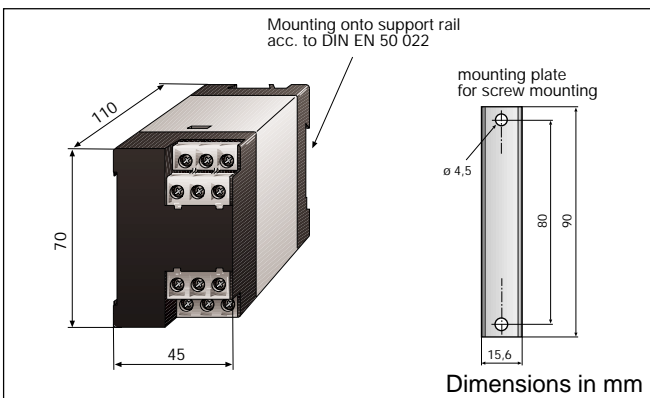


- Monitoring line-to-line voltage in 3 AC systems



- electronic measuring relay
- indicates undervoltage
- no additional supply voltage required
- impulse voltage and electrical disturbance proof according to VDE and IEC
- alarm relay with two change-over contacts
- built-in power on LED and alarm LED
- continuously adjustable alarm points
- compact 45 mm casing

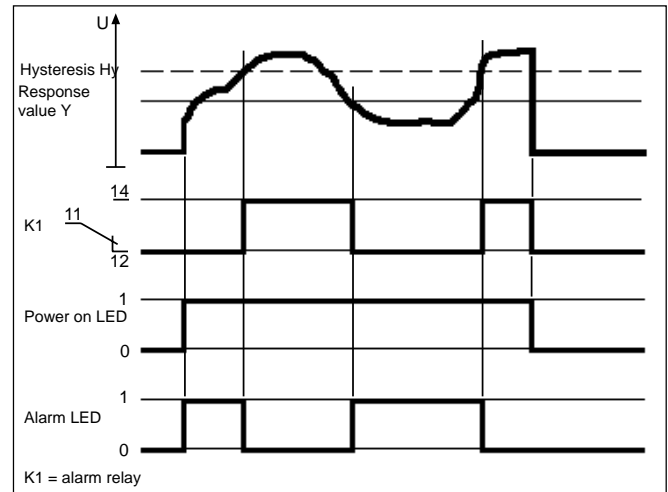
Dimension diagram



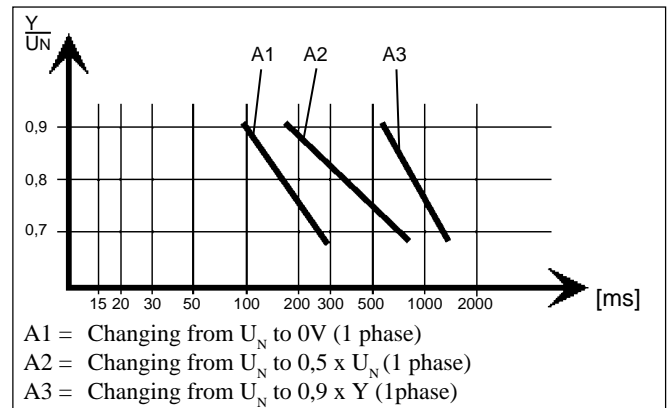
Function

If one, two or all line-to-line voltages fall below the adjusted response value "Y", the alarm relay releases and the red alarm LED signals "UVW<Y".

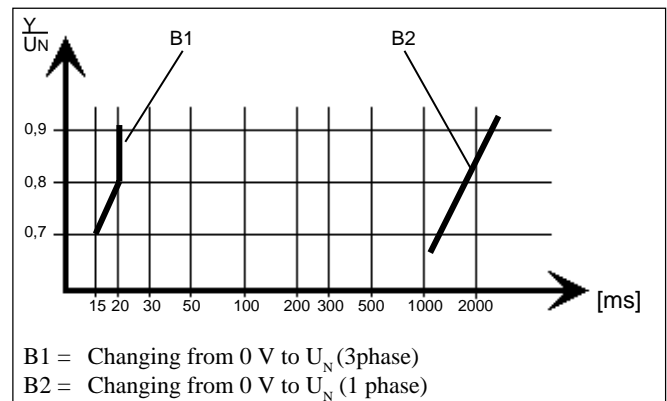
If the adjusted response value and additionally the fixed hysteresis "Hy" is exceeded, the alarm relay and the red alarm LED extinguish.



ON-delay



OFF-delay



Technical data SUD142

Insulation coordination acc. to IEC 664-1:

Rated insulation voltage	AC 250 V
Rated impulse withstand voltage/contamination level	4 kV/3
Dielectric test acc. to IEC 255	3 kV

System being monitored

Nominal voltage of the system U_N	3 AC 50...60 Hz 100 ... 120 V 200...240 V 400 ... 440 V
Operating range	0 ... 1.15 x U_N

Supply voltage

Supplied by the system being monitored	
Max. power consumption	3 VA

Response values

Response value (adjustable)	80...120 V 140 ... 220 V or 260 ... 420 V
Repeat accuracy	1.5 %
Temperature influence	< 0.05 % / °C
Frequency influence	< 0.1 % / Hz
Switching hysteresis approx.	5 %

Contact circuit

Switching components	2 change over contacts
Contact class acc. to DIN IEC 255 Teil 0-20	IIB
Rated contact voltage	AC 250 V/DC 300 V
Admissible number of operations	12000 cycles
Limited making capacity	UC 5 A
Limited breaking capacity	
at AC 230 V and $\cos \phi = 0.4$	AC 2 A
at DC 220 V and $L/R = 0.04$ s	DC 0.2 A
Operating principle	N/C operation

Type tests

Test of the Electromagnetic Compatibility (EMC):

Immunity against electromagnetic

Interferences acc. prEN 50082-2:

Impulse voltage and electrical disturbance test acc. to IEC 255:

Impulse voltage test acc. to IEC 255-5 class III

Electrical disturbance test acc. to IEC 255-5 class III

Emissions acc. to EN 50081-2:

Emissions acc. to EN 55011/CISPR11 class B¹⁾

Mechanical tests:

Shock resistance acc. to IEC 68-2-27 15 g/11 ms

Bumping acc. to IEC 68-2-29 40 g/6 ms

Vibration strength acc. to IEC 68-2-6 10 ... 150 Hz/0.15 mm - 2 g

Environmental conditions

Ambient temperature, during operation -15°C ... +50°C

Storage temperature range -20°C ... +70°C

Climatic class acc. to IEC 721 3K5, except condensation and formation of ice

General data

Operation class continuous operation

Mounting position any position

Type of connection terminal screws with self-lifting clamp-washers

Wire cross section

single wire 2 x (1...1.5 mm²) 16 AWG

fine braid 2 x (0,75...1.5 mm²) 16 AWG

DIN rail according to DIN EN 50 022 or screw mounting

Protection class acc. to EN 60529

Internal components IP 50

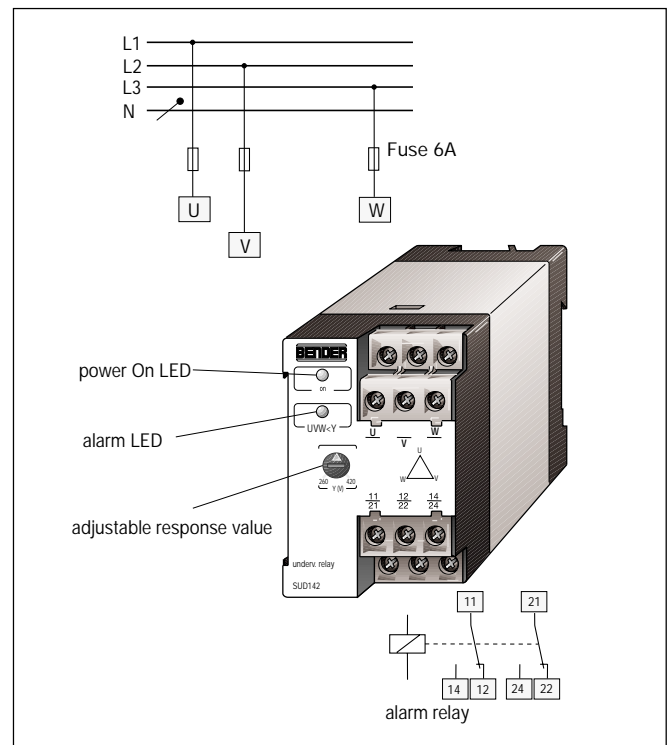
Terminals/with terminal covers IP10/IP 20

Type of casing X140

Flammability class UL94V-0

Weight approx. 300 g

Wiring diagram



Safety instructions

Please check for correct mains voltage !

Electrical equipment shall only be installed by qualified personnel in consideration of the current safety regulations.

For short-circuit protection, the network coupling has to be equipped with a protective device according to IEC 364-4-473 (A fuse of 6 A is recommended).

Supplementary to this data sheet you will find enclosed "important safety instructions on the proper use of BENDER products."

Ordering details

Type	Rated system voltage	Response value	Art. No.
SUD142	3 AC 100...120 V	80...120 V	933 559
	3 AC 200...220 V	140...220 V	933 558
	3 AC 380...440 V	260...420 V	933 557

Ordering details for screw mounting

Type	Art. No.
Mounting plate	300 102

BENDER Industrial Products

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www.benderrelay.com

¹⁾ Class B devices are suitable for household and industrial use.