



for current monitoring in AC systems



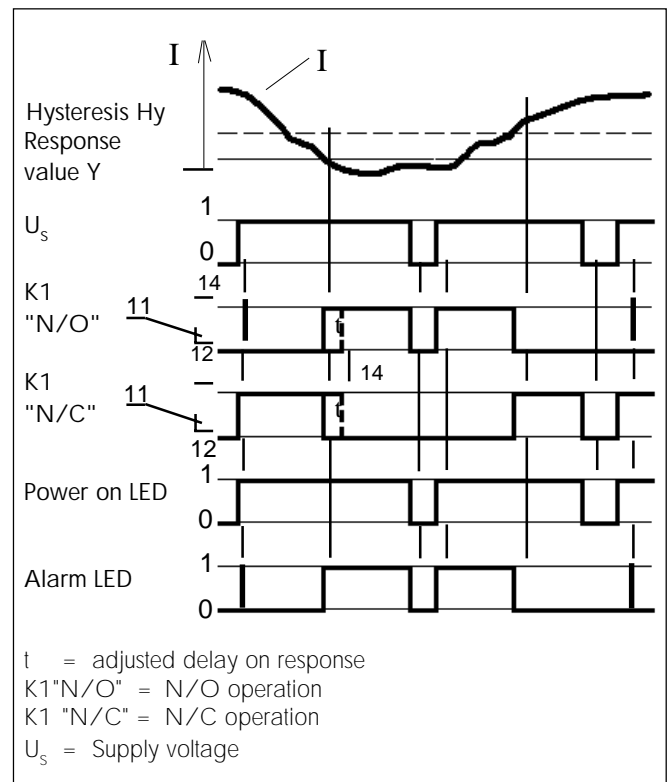
- electronic measuring relay
- indicates decreasing current
- impulse voltage and electrical disturbance proof according to VDE and IEC
- alarm relay with two change-over contacts
- built-in power on LED and alarm LED
- steplessly adjustable: response value, response time, hysteresis
- compact 45 mm casing

Function

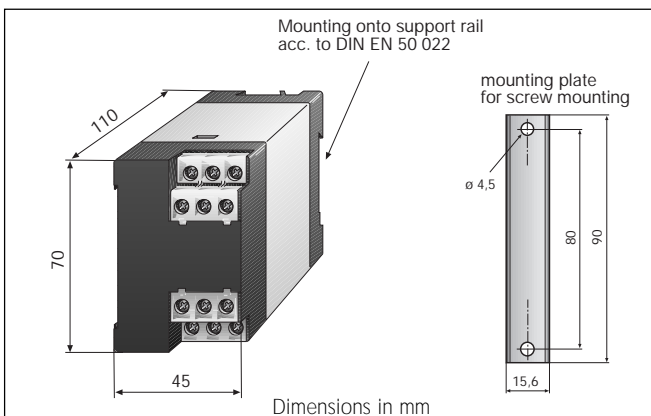
If the monitored current decreases below the adjusted response value "Y" the red alarm LED signals "I<Y" and after the adjustable delay on response "t" the alarm relay K1 reacts.

If current increases above the adjusted response value and additionally the adjustable hysteresis "Hy" the alarm relay reacts and the red alarm LED extinguishes after the delay on response of approx. 70 ms.

The function of the alarm relay is selectable between N/O operation and N/C operation (see wiring diagram).



Dimension Diagram



Technical Data CSE140

Insulation coordination acc. to IEC 664-1

Rated insulation voltage	AC 440 V
Rated impulse withstand voltage/contamination level	4 kV/3
Voltage test acc. to IEC 255-5	2,5 kV

Supply voltage

Supply voltage U_s	AC 50...60 Hz 85...125V, 100...145V, 185...275V (other values on request)
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Max. power approx.

3 VA

Response value

Response value (steplessly adjustable)	0.1-1A, 0.5-5A, 1-10A, *5-50A
Overload capacity	40 A 1s / 12 A continuous operation * 5-50A (10 x I_n)

Influence of ambient temperature

<0.05% / °C

Load

< 1.5 VA

Switching hysteresis (steplessly adjustable)

2...10 %

Delay on response t (steplessly adjustable)

0.1 ... 10 sec

Recovery time max.

0.2 sec

Delay on release

approx. 70 ms

Repeat accuracy

< ± 1.5 %

Influence of ambient temperature

<0.2 % / °C

Contact circuits

Switching components	two change-over contacts
Contact class acc. to DIN IEC 60255 T. 0-20	IBB
Rated contact voltage	AC 250 V / DC 300 V
Admissible number of operations	12000 cycles
Limited making capacity	UC 5 A
Limited breaking capacity	UC 2 A
AC 230 V, cos phi = 0.4	DC 0.2 A
DC 220 V, L/R = 0.04 s	N/C or N/O operation
Operating principle	N/O operation
Pre-set by factory	N/O operation

Type tests

Test of the Electromagnetic Compatibility (EMC):

Immunity against electromagnetic

Interferences acc. EN 50082-2:

Impulse voltage and electrical disturbance test acc. to IEC 60255:

Impulse voltage test acc. to IEC60255-5 class III

Electrical disturbance test acc. to IEC 60255-5 class III

Emission acc. to EN 50081-2:

Emissions acc. to EN 55011/CISPR11 class B¹⁾

Mechanical tests

Shock resistance acc. to IEC 6068-2-27 15 g/11 ms

Bumping acc. to IEC 6068-2-29 40 g/6 ms

Vibration strength acc. to IEC 6068-2-6 10 ...150 Hz/0.15 mm - 2 g

Environmental conditions

Ambient temperature during operating -15°C ... +50°C

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

Climatic class according to IEC 60721 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 2x (1 ... 1.5 mm²) 16 AWG

fine braid with end sleeve 2x (0.75 ... 1.5 mm²) 16 AWG

DIN rail according to DIN EN 50 022 or screw mounting

Protection class according to EN 60 529 IP 50

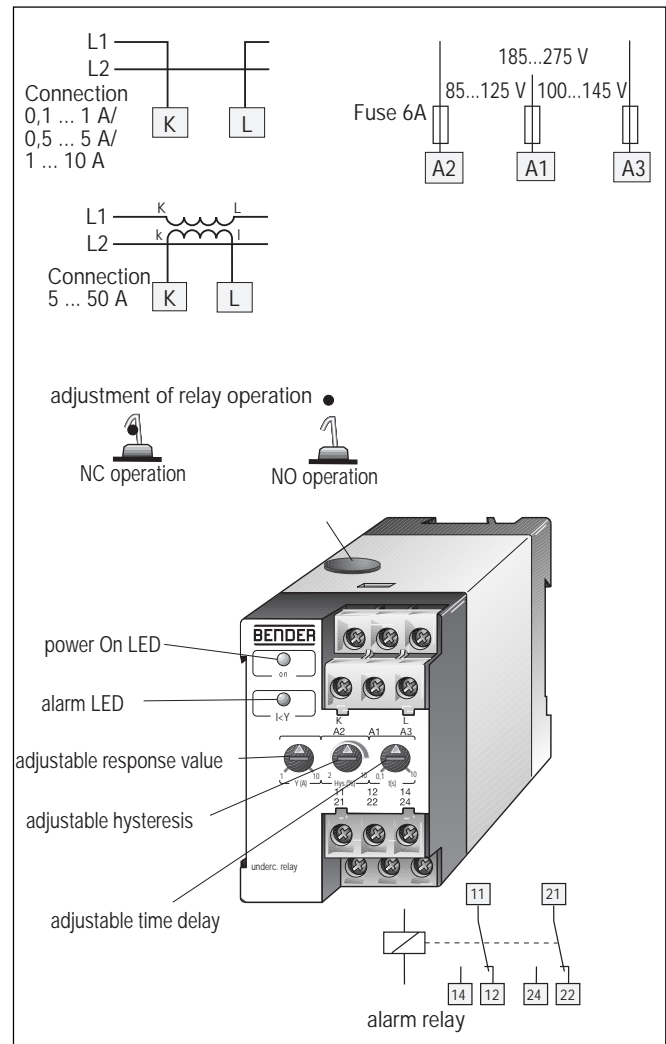
Internal components IP 10/IP 20

Terminals/with terminal covers X140

Casing UL 94 V - 0

Weight approx. 250 g

Wiring diagrams



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 connection to the supply voltage 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	Response Value	Art. No.
CSE140	0,1...1 A	B 942 616
	0,5...5 A	B 942 614
	1...10 A	B 942 612
CSE140	5...50 A	B 942 617
*ext. current transformer		B 942 709

Other values on request

Ordering details for screw mounting

Type	Art.-No.
Mounting plate	R 300 102

Right to modifications reserved

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