



- current monitoring in DC networks



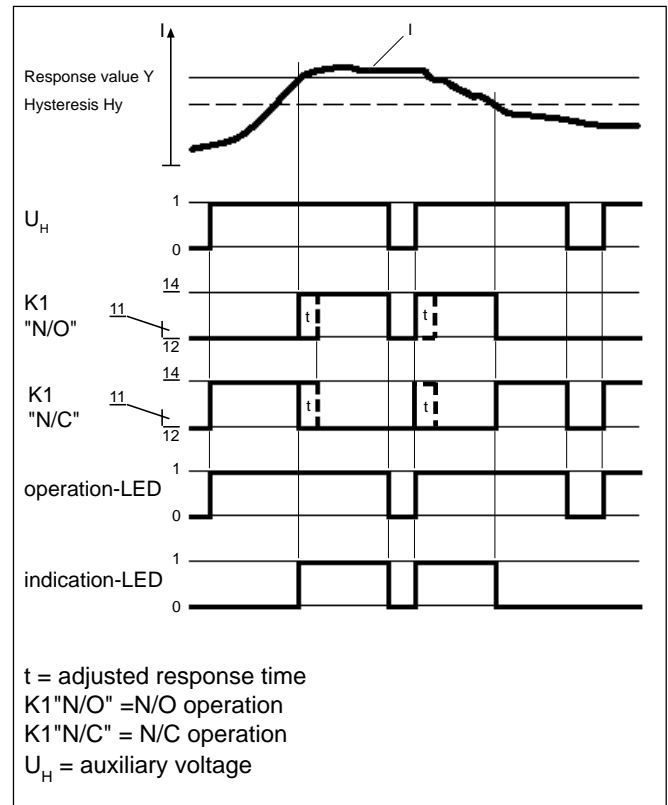
### Function

If the monitored current exceeds the adjusted response value "Y" the red indication-LED signals "I>Y" and at the end of the adjustable response time "t" the output relay K1 reacts.

If the current falls below the adjusted response value together with the adjustable hysteresis "Hy" the output relay reacts and the red indication-LED extinguishes at the end of the switch-back retardation of approx. 70 ms.

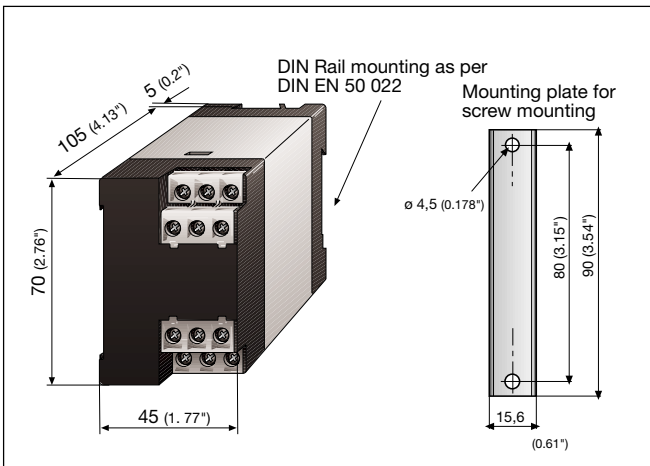
The function of the output relay is selectable between circuit-closing and circuit-opening connection (see wiring diagram).

- electronic measuring relay
- indicates increasing current
- 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
- adjustable: response time
- adjustable: hysteresis
- compact 45 mm casing
- response values:
  - 2 ... 20 mA / 0,5 ... 5 mA
  - 6 ... 60 mV / 50 ... 500 mV
  - 0,5 ... 5 A
  - 0,1 ... 10 A



t = adjusted response time  
 K1"N/O" = N/O operation  
 K1"N/C" = N/C operation  
 $U_H$  = auxiliary voltage

### Dimension Diagram



## Technical Data CSG141

|                            |   |
|----------------------------|---|
| Nominal insulation voltage | DC 300 V  |
| Contact circuit            | AC 250 V  |
| Insulation group           | C   |
| Test Voltage               | 2500V   |
| Auxiliary voltage $U_H$    | AC50...60Hz 85...125 V / 100...145 V<br>185...275 V (other values on request) |
| Max. self-consumption      | 3VA   |
| Response value adjustable  |   |

0,5-5 mA 2-20 mA 6-60 mV 50-500 mV 0,5-5 A 1-10 A

Load  
12  $\Omega$  3  $\Omega$  1 k $\Omega$  8,2 k $\Omega$  10 m $\Omega$  10 m $\Omega$

Overload capacity  
0,5 A 1s 0,5A 1s 30V 1s 50V 1s 40A 1s 40A 1s

continuous working  
0,2 A 0,2 A 6 V 10 V 12 A 12 A

Temperature influence <0.05% / °C

Switching hysteresis adjustable 2 ... 10 %

Time delay adjustable 0.1 ... 10 sec

Ready to trip time max. 0.2 sec

Off-delay 70 ms

Repeat accuracy <  $\pm$  1.5 %

Temperature influence <0.2 % / °C

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 0.3 A

Operating principle N/C or N/O operation

Adjustment by factory N/O operation

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

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

Terminal screws M 3.5

Wire cross section single wire

2x (1 ... 1.5 mm<sup>2</sup>) 16 AWG

fine braid with end sleeve 2x (0.75 ... 1.5 mm<sup>2</sup>) 16 AWG

Protection class according to DIN 40 050

Internal components IP 50

Terminals IP 10

with terminal covers IP 20

Casing

Behavior in fire according to UL 94 V - 0

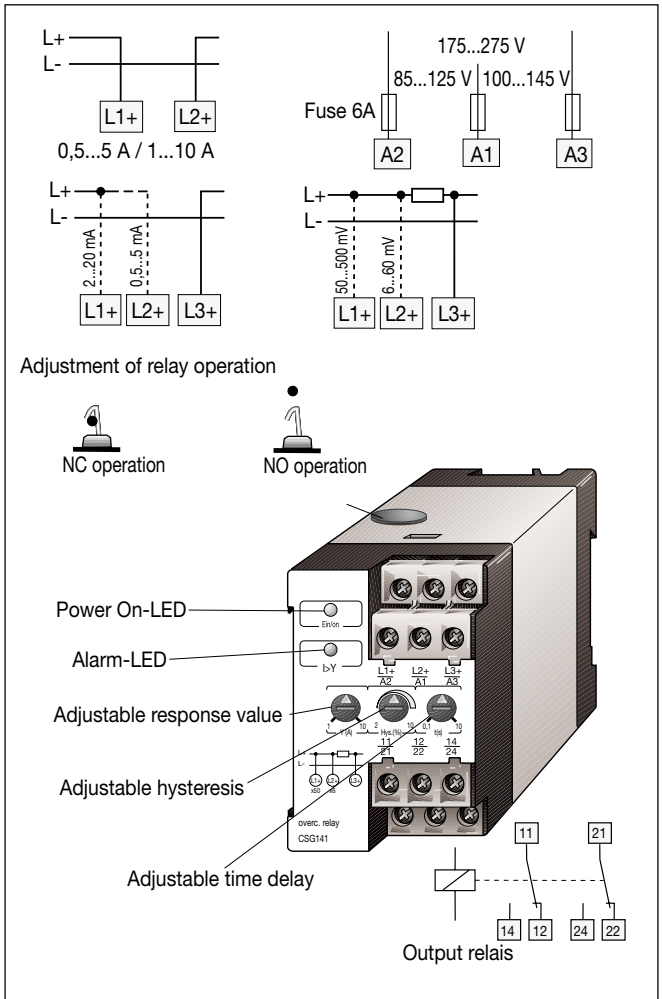
Fixing

on supporting rail according to DIN EN 50 022 or screw mounting\*

Weight approx. 250 g

\* Accessories for screw mounting:  
Mounting plate art.-no.: 300 102

## Wiring Diagrams



## Legend to wiring diagram

K1 Output relay with two free change over contacts

The auxiliary voltage for the internal electronic has to be connected to the terminals A1/A2/A3.

| UH          | Terminal |
|-------------|----------|
| 85...125 V  | A2 - A1  |
| 100...125 V | A1 - A3  |
| 175...275 V | A2 - A3  |

Other values on request

## Ordering details

| Type   | Reponse value         | Art.-No. |
|--------|-----------------------|----------|
| CSG141 | 0,5...5 A             | 943 605  |
|        | 0,5...5 mA/2...20 mA  | 943 602  |
|        | 1...10 A              | 943 603  |
|        | 6...60 mV/50...500 mV | 943 607  |

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