

Description

Single pole press-to-reset thermal circuit breaker with extremely fast overload switching performance (R-type TO CBE to EN 60934). Miniaturised construction minimises PCB real estate required. PCB mounting or integral mounting. Largely temperature-insensitive.

Typical applications

Motors, transformers, solenoids, PCBs, hand-held machines, appliances, instrumentation.

Ordering information

Type No.

1410 single pole circuit breaker

Configuration

L integral mounting or PCB mounting

Mounting

1 footprint 16.3x4.6

Number of poles

1 1-pole, thermally protected

Hardware

0 without

Terminal design

L1 solder pins 1.8x0.8 silver-plated

Characteristic curve

F1 fast acting

Actuator, Type and Colour

S01 reset button, black

Current ratings

0.63...10 A

1410 - L 1 1 0-L1 F1 - S01 - 0.8 A ordering example

Please be informed that we have minimum ordering quantities to be observed.

Preferred types

| Preferred types | Standard current ratings (A) | | | | | | | | | | | |
|---------------------|------------------------------|-----|---|-----|---|-----|------|---|---|-----|---|----|
| | 0.63 | 0.8 | 1 | 1.5 | 2 | 2.5 | 3.15 | 4 | 5 | 6.3 | 8 | 10 |
| 1410-L110-L1F1-S01- | x | x | x | x | x | x | x | x | x | x | x | x |

Standard current ratings and typical internal resistance values

| Current rating (A) | Internal resistance (Ω) | Current rating (A) | Internal resistance (Ω) |
|--------------------|-------------------------|--------------------|-------------------------|
| 0.63 | 1.8 | 3.15 | < 0.12 |
| 0.8 | 1.7 | 4 | < 0.1 |
| 1 | 1.3 | 5 | < 0.1 |
| 1.5 | < 1 | 6.3 | < 0.1 |
| 1.8 | < 1 | 8 | < 0.1 |
| 2 | < 1 | 10 | < 0.1 |
| 2.5 | < 0.15 | | |



1410-L1...

Technical data

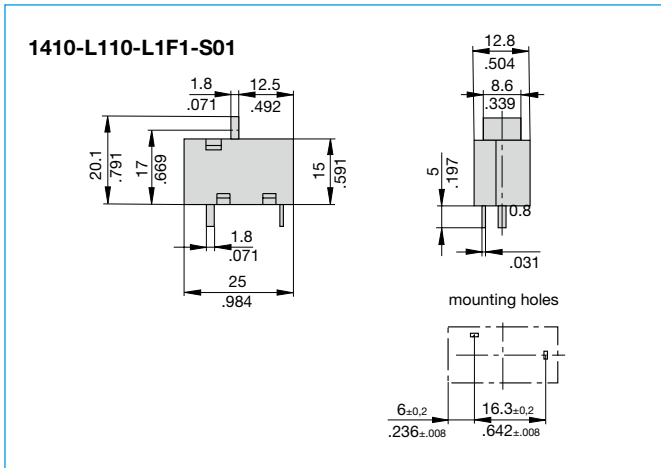
For further details please see: http://www.e-t-a.de/ti_e

| | | |
|---|--|--------------------|
| Voltage rating | AC 240 V; DC 28 V (UL: AC 250 V; DC 50 V) | |
| Current rating range 1-2 | 0.63...10 A | |
| Typical life | AC 240 V: 0.63...2.25 A 500 break operations at 2 x I _N , inductive 2.5...10 A 500 break operations at 2 x I _N , resistive DC 50 V: 0.63...2.25 A 500 break operations at 2 x I _N , inductive DC 28 V: 2.5...10 A 500 break operations at 2 x I _N , inductive | |
| Ambient temperature | -20...+70 °C (-4...+158 °F) | |
| Insulation co-ordination (IEC 60664 and 60664 A) | rated impulse withstand voltage 2.5 kV | pollution degree 2 |
| | reinforced insulation in operating area | |
| Dielectric strength (IEC 60664 and 60664A) operating area | test voltage AC 1,500 V | |
| Insulation resistance | > 100 MΩ (DC 500 V) | |
| Interrupting capacity I _{cn} (o-o-o) | 0.63...2 A 12 x I _N 2.5...8 A 8 x I _N , AC max. 50 A 10 A 6 x I _N , AC 3.15...10 A 10 x I _N , DC | |
| Interrupting capacity (UL 1077) | 0.63...10 A 2,000 A AC 250 V 0.63...10 A 200 A DC 50 V | |
| Degree of protection (IEC 60529/DIN 40050) | operating area IP40 terminal area IP00 | |
| Vibration | 8 g (57-500 Hz) ± 0.61 mm (10-57 Hz), to IEC 60068-2-6, test Fc, 10 frequency cycles/axis | |
| Shock | 20 g (11 ms) to IEC 60068-2-27, test Ea | |
| Corrosion | 48 hours at 5 % salt mist, to IEC 60068-2-11, test Ka | |
| Humidity | 96 hours at 95 % RH to IEC 60068-2-78, test Cab | |
| Mass | approx. 5 g | |

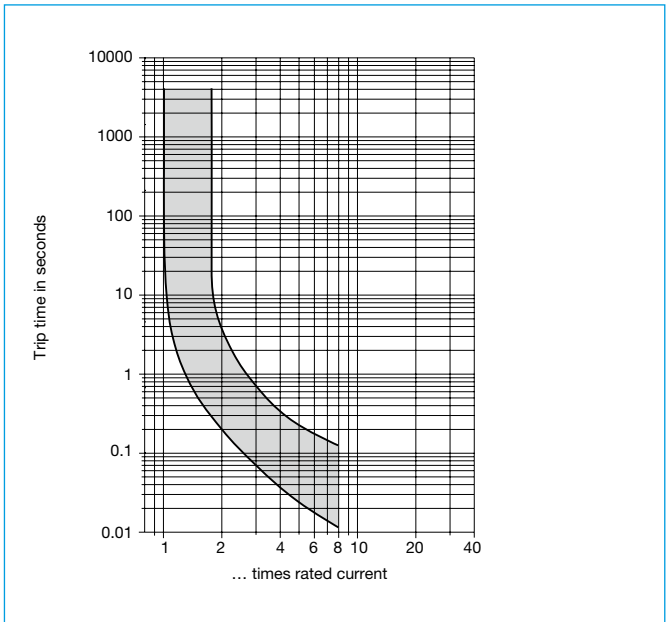
Approvals

| Authority | Standard | Rated voltage | Current ratings |
|-----------|--------------|--------------------------------|---|
| VDE | IEC/EN 60934 | AC 240 V DC 50 V DC 28 V | 0.63 A...6.3 A 0.63 A...2.25 A 2.5 A...10 A |
| UL | UL 1077 | AC 250 V DC 50 V | 0.63 A...10 A 0.63 A...10 A |
| CSA | C22.2 No 235 | AC 125 V DC 48 V | 0.63 A...8 A 0.63 A...8 A |

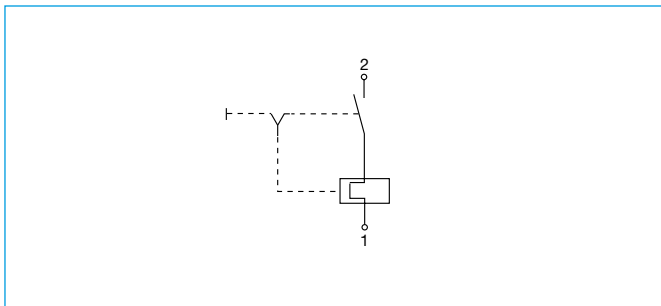
Dimensions



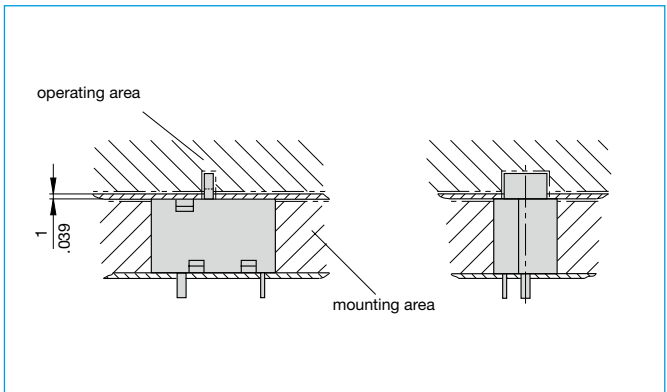
Typical time/current characteristics at +23 °C/+73.4 °F



Internal connection diagram



Installation drawings



This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.