

**Type: 1410-G1**



Single pole press-to-reset thermal circuit breaker with extremely fast overload switching performance (R-type TO CBE to EN 60934). Single hole threadneck mounting. Type 1410-G1 features changeover contacts suitable for providing status output signals. Largely temperature-insensitive.

**Voltage rating:**

- AC 240 V
- DC 28 V (DC 50 V upon request)
- UL/CSA: AC 250 V
- UL/CSA: DC 50 V

**Current ratings:**

from 0.63 A to 10 A

**Number of poles:**

single pole

**Mounting method:**

threadneck

**Terminal design:**

blade terminals

**Actuation:**

push button

**Auxiliary contacts:**

without auxiliary contacts

**Water splash protection:**

with water splash protection  
without water splash protection

**Illumination:**

without illumination

**Typical life:**

500 operations at  $2 \times I_N$ , AC, resistive  
500 operations at  $2 \times I_N$ , DC, inductive

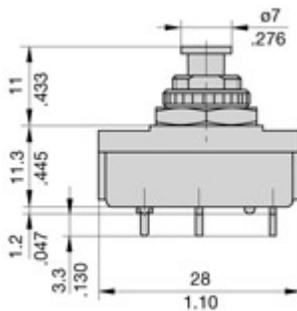
**Interrupting capacity  $I_{cn}$ :**

0.63...2 A:  $12 \times I_N$   
2.5...8 A:  $8 \times I_N$  AC, max 50 A  
10 A:  $6 \times I_N$  AC  
3.15...10 A:  $10 \times I_N$  DC

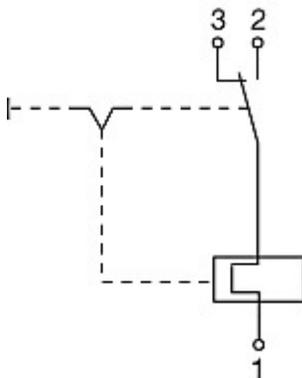
**Approvals:**

VDE, CSA, UL

**Dimensions**



**Internal connection diagrams**



## Description

Single pole press-to-reset thermal circuit breaker with extremely fast overload switching performance (R-type TO CBE to EN 60934). Single hole threadneck, PCB or integral mounting with a choice of designs. Miniaturised construction minimises PCB real estate required. Type 1410-L2 and 1410-G1 versions feature changeover contacts suitable for providing status output signals. Largely temperature-insensitive.

## Typical applications

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

## Ordering information

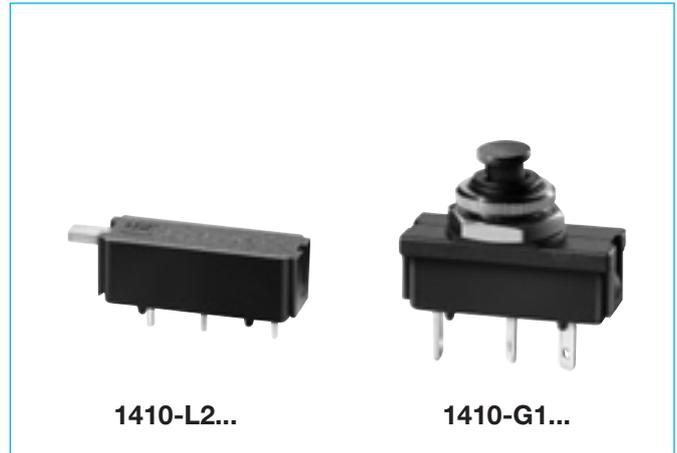
|                             |           |  |
|-----------------------------|-----------|--|
| <b>Type No.</b>             | 1410      | single pole circuit breaker  |
| <b>Configuration</b>        | <b>L</b>  | PCB mounting or integral mounting  |
|                             | <b>G</b>  | threadneck panel mounting or PCB mounting  |
| <b>Mounting</b>             | <b>1</b>  | threadneck 3/8-27UNS-2A (1410-G)   |
|                             | <b>2</b>  | PCB 10.15x7.62 (1410-L)  |
|                             | <b>3</b>  | PCB 10.15 without shunt terminal (1410-L)  |
| <b>Number of poles</b>      | <b>1</b>  | 1-pole, thermally protected  |
| <b>Hardware</b>             | <b>0</b>  | without  |
|                             | <b>1</b>  | with hexnut and knurled nut (only 1410-G)<br>> 5 pcs hexnut and knurled nut bulk shipped |
|                             | <b>2</b>  | without hexnut and knurled nut and without shunt terminal (only 1410-G)                  |
|                             | <b>4</b>  | with hexnut and knurled nut, without shunt terminal (only 1410-G)                        |
|                             | <b>8</b>  | with actuator guard and marking CB.. (only 1410-G)                                       |
| <b>Terminal design</b>      | <b>L2</b> | solder pins 1x0.8 silver-plated  |
|                             | <b>P2</b> | blade terminals DIN 46244-A2.8-0.8 silver-plated (only -G)                               |
|                             | <b>P3</b> | blade terminals DIN 46244-A4.8-0.5 silver-plated (only -G)                               |
| <b>Characteristic curve</b> | <b>F1</b> | fast acting  |
| <b>Actuator</b>             | <b>B</b>  | flat reset-slide (only 1410-G)   |
|                             | <b>S</b>  | reset slide/button   |
| <b>Actuator colour</b>      | <b>01</b> | black (for -G1..)  |
|                             | <b>02</b> | white (for -L2..)  |
|                             | <b>04</b> | red (for 1410-G.-...B)   |
| <b>Current ratings</b>      |           | 0.63...10 A  |

1410 - L 2 1 0 - L2 F1 - S 02 - 0.8 A ordering example

\*mounting hardware bulk shipped

## 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                  |                    |                         |



## Technical data

For further details please see chapter: Technical Information

|  |  |   |
|--|--|---|
| Voltage rating                                   | AC 240 V; DC 28 V<br>(UL: AC 250 V; DC 50 V)   |   |
| Current rating range 1-2                         | 0.63...10 A  |   |
| Auxiliary circuit 1-3                            | 0.2 x I <sub>N</sub> max. 1 A, AC 250 V  |   |
| Typical life                                     | AC 240 V: 0.63...2.25 A 500 break operations at 2 x I <sub>N</sub> , inductive<br>2.5...10 A 500 break operations at 2 x I <sub>N</sub> , resistive<br>DC 50 V: 0.63...2.25 A 500 break operations at 2 x I <sub>N</sub> , inductive<br>DC 28 V: 2.5...10 A 500 break operations at 2 x I <sub>N</sub> , inductive |   |
| Ambient temperature                              | -20...+70 °C (-4...+158 °F)  |   |
| Insulation co-ordination (IEC 60664 and 60664 A) | rated impulse withstand voltage<br>2.5 kV  | pollution degree<br>2<br>reinforced insulation in operating area  |
| Dielectric strength (IEC 60664 and 60664 A)      | test voltage<br>operating area   | AC 1,500 V  |
| Insulation resistance                            | > 100 MΩ (DC 500 V)  |   |
| Interrupting capacity I <sub>cn</sub> (o-o-o)    | 0.63...2 A<br>2.5...8 A<br>10 A<br>3.15...10 A   | 12 x I <sub>N</sub><br>8 x I <sub>N</sub> , AC max. 50 A<br>6 x I <sub>N</sub> , AC<br>10 x I <sub>N</sub> , DC |
| Interrupting capacity (UL 1077)                  | 0.63...10 A<br>0.63...10 A   | 2,000 A AC 250 V<br>200 A DC 50 V   |
| Degree of protection (IEC 60529/DIN 40050)       | operating area IP40<br>terminal area IP00  |   |
| Vibration  | 8 g (57-500 Hz) ± 0.61 mm (10-57 Hz),<br>to IEC 60068-2-6, test Fc,<br>10 frequency cycles/axis  |   |
| Shock  | 20 g (11 ms)<br>to IEC 60068-2-27, test Ea   |   |
| Corrosion  | 48 hours at 5 % salt mist,<br>to IEC 60068-2-11, test Ka   |   |
| Humidity   | 96 hours at 95 % RH<br>to IEC 60068-2-3, test Ca   |   |
| Mass   | approx. 5 g  |   |

## Approvals

| Authority | Voltage rating                 | Current ratings                         |
|-----------|--------------------------------|---|
| VDE       | AC 240 V<br>DC 50 V<br>DC 28 V | 0.63...10 A<br>0.63...2 A<br>2.5...10 A |
| UL, CSA   | AC 250 V; DC 50 V              | 0.63...10 A                             |

