

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: $12 \times I_N$

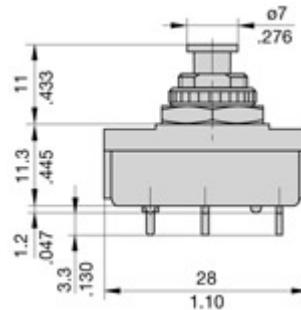
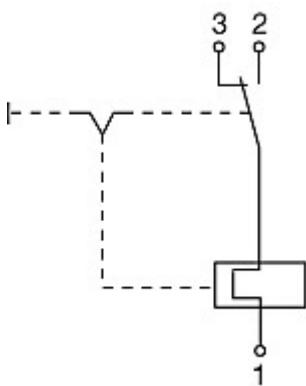
2.5...8 A: $8 \times I_N$ AC, max 50 A

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

Type No.

1410 single pole circuit breaker

Configuration

L PCB mounting or integral mounting

G threadneck panel mounting or PCB mounting

Mounting

1 threadneck 3/8-27UNS-2A (1410-G)

2 PCB 10.15x7.62 (1410-L)

3 PCB 10.15without shunt terminal (1410-L)

Number of poles

1 1-pole, thermally protected

Hardware

0 without

1 with hexnut and knurled nut (only 1410-G)
> 5 pcs hexnut and knurled nut bulk shipped

2 without hexnut and knurled nut and without shunt terminal (only 1410-G)

4 with hexnut and knurled nut,
without shunt terminal (only 1410-G)

8 with actuator guard and marking CB..
(only 1410-G)

Terminal design

L2 solder pins 1x0.8 silver-plated

P2 blade terminals DIN 46244-A2.8-0.8 silver-plated (only -G)

P3 blade terminals DIN 46244-A4.8-0.5 silver-plated (only -G)

Characteristic curve

F1 fast acting

Actuator

B flat reset-slide (only 1410-G)

S reset slide/button

Actuator colour

01 black (for -G1..)

02 white (for -L2..)

04 red (for 1410-G...-B)

Current ratings

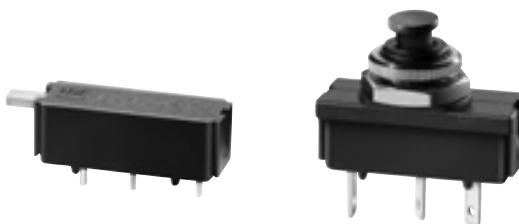
0.63...10 A

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		



1410-L2...

1410-G1...

1

Technical data

For further details please see chapter: Technical Information

Voltage rating AC 240 V; DC 28 V
(UL: AC 250 V; DC 50 V)

Current rating range 1-2 0.63...10 A

Auxiliary circuit 1-3 0.2 x I_N max. 1 A, AC 250 V

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

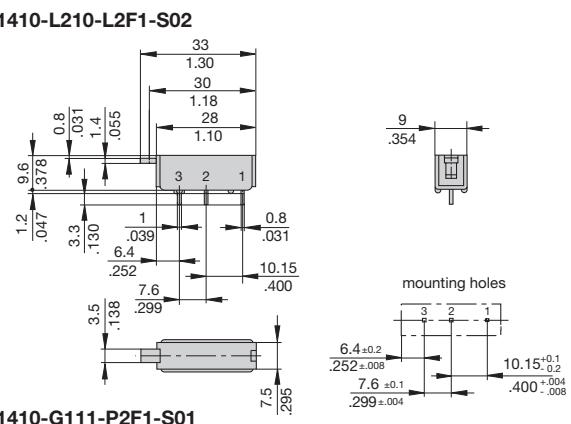
Humidity 96 hours at 95 % RH
to IEC 60068-2-3, test Ca

Mass approx. 5 g

Approvals

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

Dimensions



1410-G111-P2F1-S01

tightening torque max. 0.8 Nm

Technical drawing of a blade terminal assembly. The main drawing shows a top-down view with various dimensions: overall width 1.10, height 1.13, thicknesses of .445 and .446, and a central slot width of 1.10. A 20° angle is indicated at the bottom left. A side view shows a height of .252, a central slot width of 1.10, and a base thickness of .299. A front view shows a height of .315, a central slot width of 1.10, and a base thickness of .299. A cross-sectional view shows a height of .276, a central slot width of 1.10, and a base thickness of .299. A callout for 'blade terminal DIN 46244-A2.8-0.8 (QC .110)' includes a side view of the terminal with dimensions .354, .118, .9, and .47. Another callout for 'mounting hole' shows a detail with a diameter of .378-.004 and a depth of .350-.004.

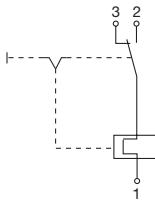
1410-G114-P3F1-B04-...

1410-G118-L2F1-B04-...

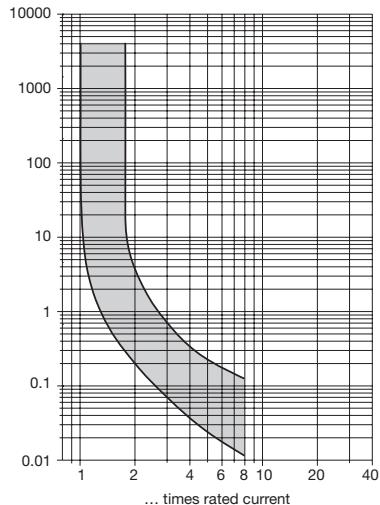
The technical drawing illustrates a mechanical component with the following dimensions:

- Front View:** Overall height is 1.13, with a .445 shoulder. A central slot has a width of .028 and a depth of .07. The top surface has a diameter of $\varnothing 11$ and a shoulder diameter of $\varnothing .433$. A vertical slot on the right has a height of 14.7 and a shoulder height of .579.
- Top View:** Total width is 0.8, with a central slot of 0.28. The left side has a shoulder of 1.10, a slot of 0.28, and a shoulder of 0.20. The right side has shoulders of 0.047 and 0.039, and a slot of 0.130. The overall length is 1.2, with shoulders of 0.047 and 0.039, and a slot of 0.130.
- Side View:** The part is 3.3 units thick. The bottom surface has a diameter of $\varnothing 15.7$ and a shoulder diameter of $\varnothing .618$. A central slot has a width of .512 and a depth of 13. The total height is 11, with a shoulder of .433.

Internal connection diagram



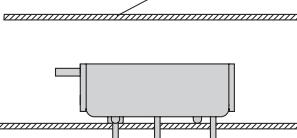
Typical time/current characteristics at +23 °C/+73.4 °F



Installation drawings

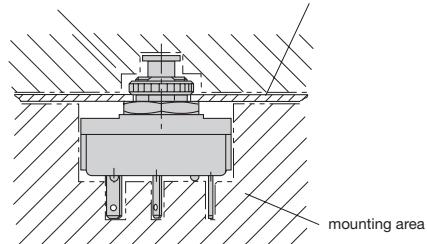
1410-L2..

Installation behind a cover which can only be removed by means of a tool



1410-G...

operating area wall



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.