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 (only1410-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...

Technical data

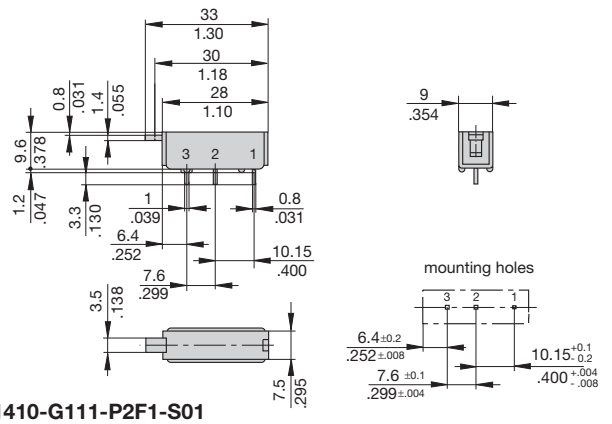
For further details please see chapter: Technical Information		
Voltage rating	AC 240 V; DC 28 V (UL: AC 250 V; DC 50 V)	
Current rating range 1-2	0.63...10 A	
Auxiliary circuit 1-3	0.2 x I_N max. 1 A, AC 250 V	
Typical life AC 240 V: 0.63...2.25 A 2.5...10 A DC 50 V: 0.63...2.25 A DC 28 V: 2.5...10 A	 500 break operations at 2 x I_N, inductive 500 break operations at 2 x I_N, resistive 500 break operations at 2 x I_N, inductive 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 reinforced insulation in operating area	pollution degree 2
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 2.5...8 A 10 A 3.15...10 A	12 x I_N 8 x I_N, AC max. 50 A 6 x I_N, AC 10 x I_N, DC
Interrupting capacity (UL 1077)	0.63...10 A 0.63...10 A	2,000 A AC 250 V 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

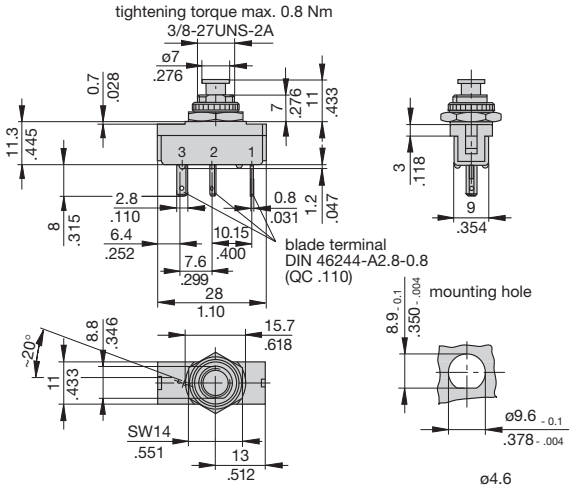
Authority	Voltage rating	Current ratings
VDE	AC 240 V DC 50 V DC 28 V	0.63...10 A 0.63...2 A 2.5...10 A
UL, CSA	AC 250 V; DC 50 V	0.63...10 A

Dimensions

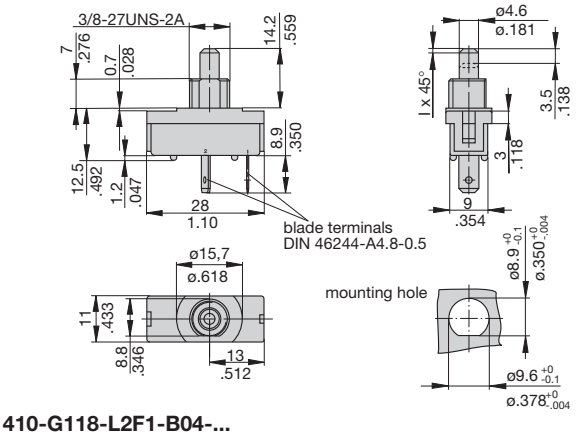
1410-L210-L2F1-S02



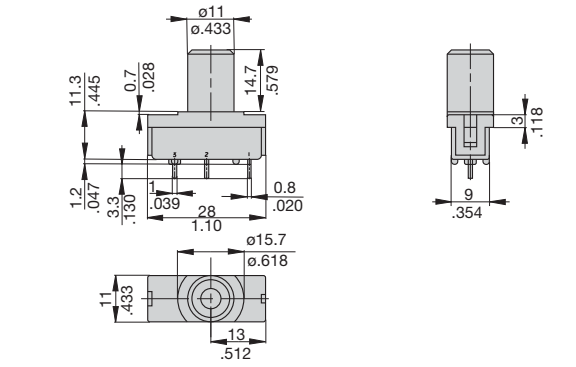
1410-G111-P2F1-S01



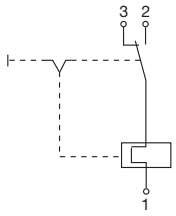
1410-G114-P3F1-B04-...



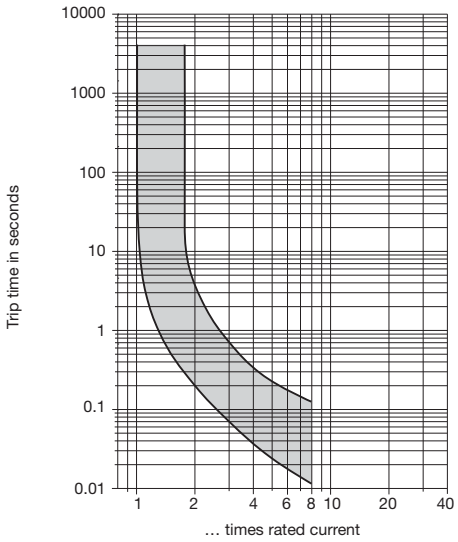
1410-G118-L2F1-B04-...



Internal connection diagram

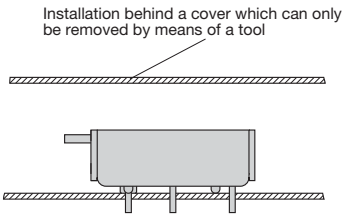


Typical time/current characteristics at +23 °C/+73.4 °F

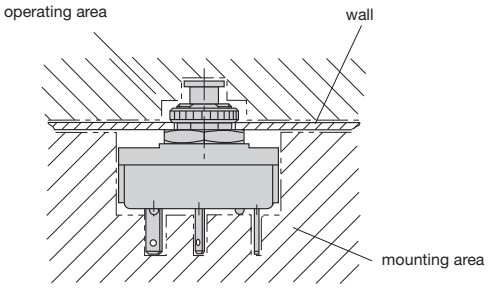


Installation drawings

1410-L2..



1410-G...



This is a metric design and millimeter dimensions take precedence (mm / 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.