

E-T-A® Thermal Overcurrent Circuit Breaker 1410-L/-G...

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
G	threadneck panel mounting
Mounting	
1	threadneck 3/8-27 UNS-2A (1410-G)
1	PCB 16.3x4.6 grid (1410-L)
2	PCB 10.15x7.62 grid (1410-L)
Number of poles	
1	1 pole, thermally protected
Hardware	
0	without
1	with hex nut and knurled nut (1410-G only) bulk shipped
Terminal design	
L1	solder pins 1.8x0.8 silver-plated (-L1 only)
L2	solder pins 1x0.8 silver-plated (-L2 and -G1 only)
P2	blade terminals A2.8-0.8 silver-plated (-G1 only)
Characteristic curve	
F1	fast acting
Actuator	
S	manual re-set
Actuator colour	
01	black (for -G1.. and -L1..)
02	white (for -L2..)
Current ratings	
0.63 ... 10 A	

1410- L 1 1 0 - L1 F1 - S 01 - 0.8 A ordering example

Please enquire for packaging quantities.

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	4.5	< 0.1
1.25	< 1	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...

1410-L2...

1410-G1...

Technical data

Voltage rating	AC 240 V; DC 28 V (DC 50 V UL/CSA)	
Current rating range 1-2	0.63...10 A	
Auxiliary circuit 1-3	0.2 x I _N max. 1 A, AC 250 V style -L2 and -G1 only	
Typical life	300 operations at 2 x I _N (-L2...) 500 operations at 2 x I _N (-L1../-G1..)	
Ambient temperature	-20...+100 °C	
Insulation co-ordination (IEC 664 and 664 A)	Rated impulse withstand voltage 2.5 kV	Pollution degree 2 reinforced insulation in operating area
Dielectric strength (IEC 664 and 664A) 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... 8 A	2,000 A AC 250 V 200 A DC 50 V
Degree of protection (IEC 529/DIN 40050)	operating area IP 40 terminal area IP 00	
Vibration	8 g (57-500 Hz) ±0.61 mm (10-57 Hz), to IEC 68-2-6, Test Fc, 10 frequency cycles/axis	
Shock	20 g (11 ms) to IEC 68-2-27, test Ea	
Corrosion	48 hours at 5 % salt mist, to IEC 68-2-11, test Ka	
Humidity	96 hours at 95 % RH to IEC 68-2-3, test Ca	
Mass	approx. 5 g	

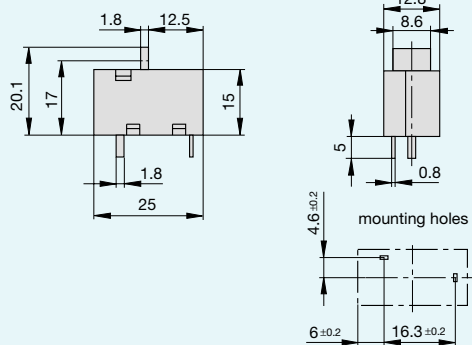
Approvals

Authority	Voltage rating	Current ratings
VDE	AC 250 V; DC 28 V	0.63... 8 A
UL, CSA	AC 250 V; DC 50 V	0.63...10 A

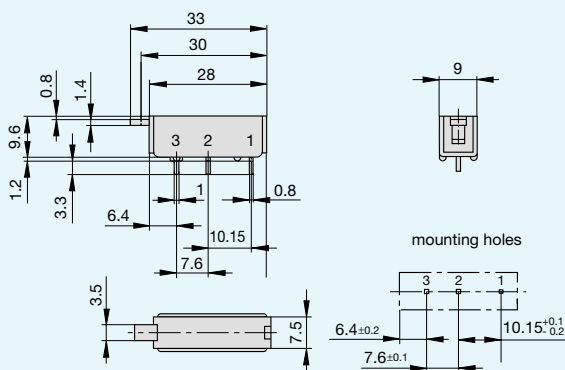
E-T-A® Thermal Overcurrent Circuit Breaker 1410-L/-G...

Dimensions

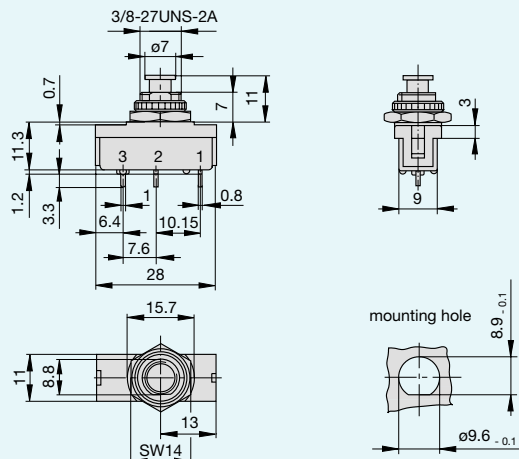
1410-L110-L1F1-S01



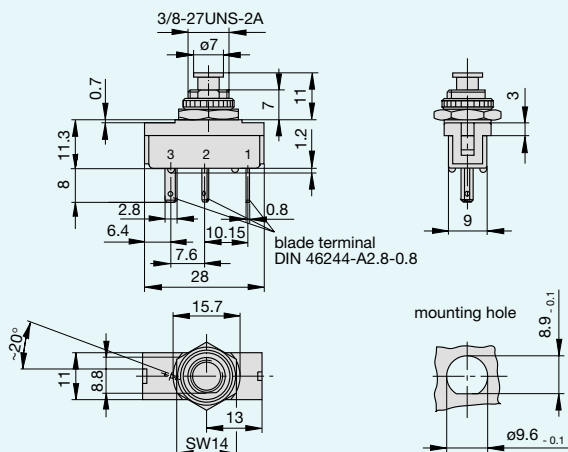
1410-L210-L2F1-S02



1410-G111-L2F1-S01

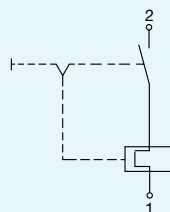


1410-G111-P2F1-S01

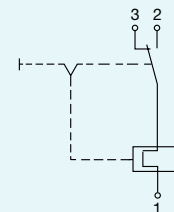


Internal connection diagrams

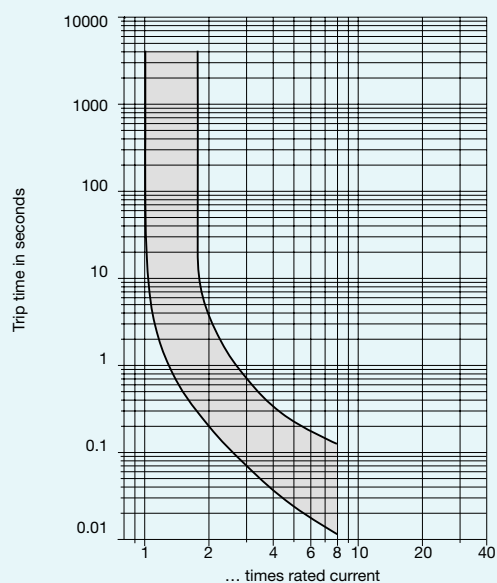
1410-L11...



1410-L21... 1410-G11...

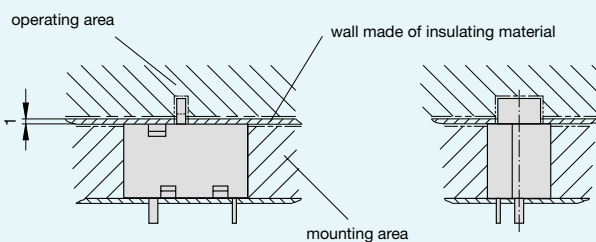


Typical time/current characteristics at +23°C



Installation drawings

1410-L11...



1410-G...

