

Description

Single pole thermal circuit breaker with push-to-reset, tease-free, trip-free, snap action mechanism (R-type TO CBE to EN 60934). Options include an additional unprotected circuit tap (-A3) and -KF housing particularly suited to high humidity and other damp conditions. Designed for threadneck panel mounting. Approved to CBE standard EN 60934 (IEC 60934).

Typical applications

Motors, transformers, solenoids, hand tools, appliances.

Ordering information

Type No.	
2-4100	threadneck panel mounting (hardware bulk shipped)
Terminal design	
L10	solder terminals
P10	blade terminals A6.3-0.8 mm (QC .250)
P50	blade terminals A4.8-0.8 mm (QC .190)
Shunt terminal (optional)	
A3	shunt terminal (3 A max. load)
Current ratings	
0.05...10 A	
2-4100 - L10 - .. - - - 5 A ordering example	

The exact part number required can be built up from the table of choices shown above. Ordering references for optional features should be omitted if not required.

Standard current ratings and typical internal resistance values

Current rating (A)	Internal resistance (Ω)	Current rating (A)	Internal resistance (Ω)
0.05	322	1.8	0.34
0.08	125	2	0.29
0.1	101	2.5	0.18
0.2	25	3	0.14
0.3	11	3.5	0.1
0.4	6.3	4	0.08
0.5	4.1	4.5	0.069
0.6	2.8	5	0.053
0.7	2.1	6	< 0.05
0.8	1.6	7	< 0.05
1	0.97	8	< 0.05
1.2	0.66	10	< 0.05
1.5	0.4		

Approvals

Authority	Voltage rating	Current rating
VDE (EN 60934)	AC 250 V; DC 28 V	0.05...10 A
CSA	AC 250 V	0.05...3.5A
UL	AC 250 V	0.05... 5 A
-A3 versions are not UL approved		



2-4100-...

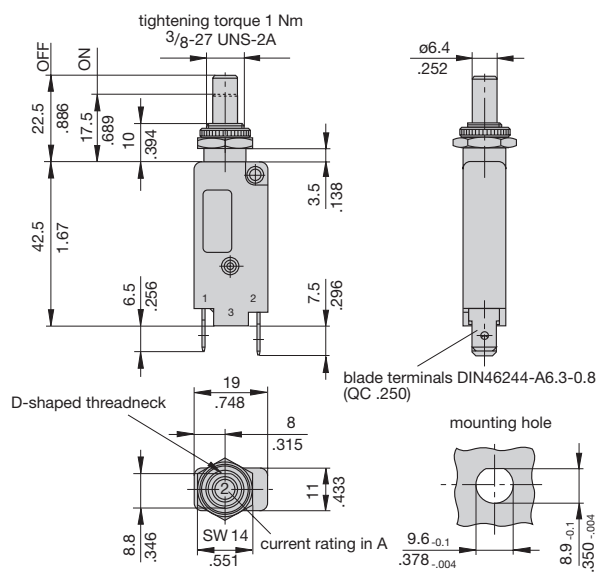
Technical data

For further details please see chapter: Technical Information

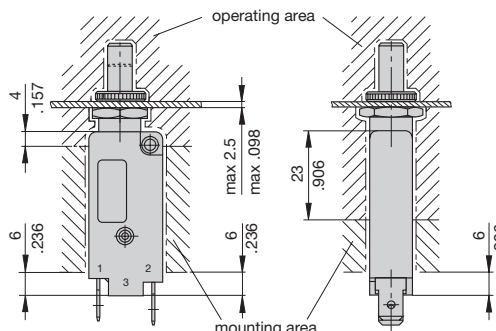
Voltage rating	AC 250 V; DC 28 V		
Current rating range	0.05...10 A		
Typical life	AC 250 V / DC 28 V: 2,000 operations at 2 x I _N , resistive DC 28 V: 0.05...10 A 1,000 operations at 2 x I _N , inductive		
Ambient temperature	-20...+60 °C (-4...+140 °F)		
Insulation co-ordination (IEC 60664 and 60664 A)	rated impulse withstand voltage 2.5 kV reinforced insulation in operating area	pollution degree 2	
Dielectric strength (IEC 60664 and 60664 A) operating area	test voltage AC 3,000 V		
Insulation resistance	> 100 MΩ (DC 500 V)		
Interrupting capacity I _{cn}	0.05...2 A 2.5...6 A 7...10 A	10 x I _N 8 x I _N 6 x I _N	
Interrupting capacity (UL 1077)	I _N 0.05...4.5 A 5 A	U _N AC 250 V AC 250 V	200 A 1,000 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00		
Vibration	10 g (57-500 Hz) ± 0.76 mm (10-57 Hz), to IEC 60068-2-6, test Fc, 10 frequency cycles/axis		
Shock	25 g (11 ms) to IEC 60068-2-27, test Ea		
Corrosion	96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka		
Humidity	240 hours at 95 % RH to IEC 60068-2-3, test Ca		
Mass	approx. 15 g		

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.

Dimensions

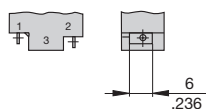


Installation drawing

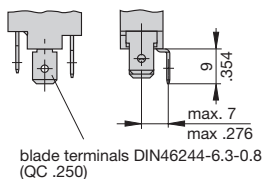


Terminal design

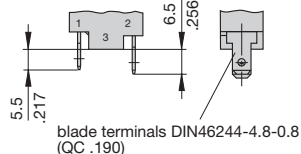
-L10



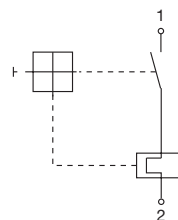
-P10-A3



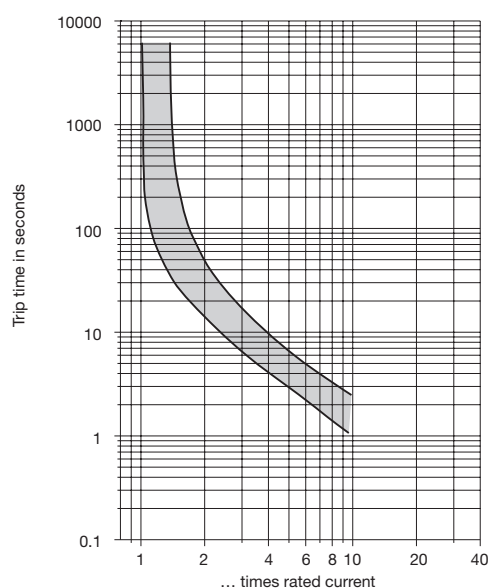
-P50



Internal connection diagram



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

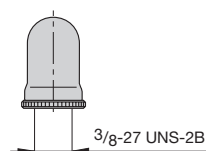


The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section 9 – Technical information.

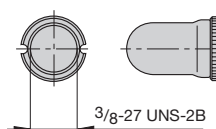
Ambient temperature °F	-4	+14	+32	+73.4	+104	+122	+140
°C	-20	-10	0	+23	+40	+50	+60
Derating factor	0.76	0.84	0.92	1	1.08	1.16	1.24

Accessories

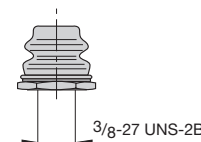
**Water splash cover, transparent Y 300 538 01,
bonded to knurled nut Y 300 628 01
X 200 799 01 (IP64)**



**Water splash cover, transparent
bonded to special knurled nut
X 200 798 02 (IP64)**



**Hex nut with splash cover,
black X 210 739 01 (IP64)
Water splash cover,
transparent with hex nut
X 201 296 03 (IP64)**



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