

Type: 1170



Compact single pole thermal circuit breaker with push-to-reset, tease free, trip free, snap action mechanism and separate (colour coded) manual release. Combining full feature circuit breaker protection and convenience with low cost of ownership benefits. Fitted with blade terminals for plug-in mounting. Type III to SAE J 553.

Version 1176 is available especially for the automotive industry (current ratings correspond to those of blade fuses).

Voltage rating:

- DC 28 V

Current ratings:

from 3 A to 25 A

Number of poles:

single pole

Mounting method:

socket

Terminal design:

blade terminals

Actuation:

manual release
push button

Auxiliary contacts:

without auxiliary contacts

Water splash protection:

without water splash protection

Illumination:

without illumination

Typical life:

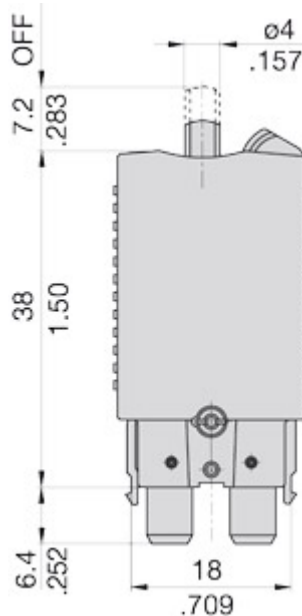
at rated current:

- 3...25 A 6,000 operations at I_N
- 3...20 A 3,000 operations at $2 \times I_N$
- 25 A 1,000 operations at $2 \times I_N$

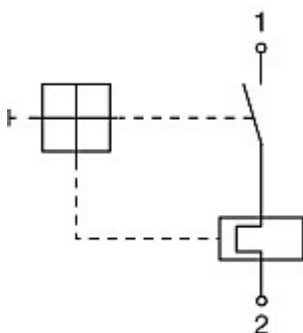
Interrupting capacity I_{cn} :

400 A

Dimensions



Internal connection diagrams



Description

Compact single pole thermal circuit breaker with push-to-reset, tease free, trip free, snap action mechanism and separate (colour coded) manual release. Combining full feature circuit breaker protection and convenience with low cost of ownership benefits. Fitted with blade terminals for plug-in mounting.

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Typical applications

Extra low voltage wiring systems on all types of vehicles and marine craft.

Ordering information

Type No.

1170 plug-in

Design standard

21 blade terminals for automotive fuse blocks (standard) with retaining clips

22 blade terminals for automotive fuse blocks, without retaining clips

Current ratings

3...25 A

1170 - 21 - 15 A ordering example

Standard current ratings, typical voltage drop values and actuator colours (manual release)

Current rating (A)	Voltage drop (mV)	Actuator colour
3	< 300	violet (approximating RAL 4008)
4	< 300	pink (approximating RAL 3015)
5	< 300	orange-brown (approximating RAL 8023)
6	< 150	mossy-green (approximating RAL 6005)
7.5	< 150	hazel (approximating RAL 8011)
8	< 150	honey (approximating RAL 1005)
10	< 150	red (approximating RAL 3020)
15	< 150	blue (approximating RAL 5012)
20	< 150	yellow (approximating RAL 1018)
25	< 150	pearl (approximating RAL 1013)



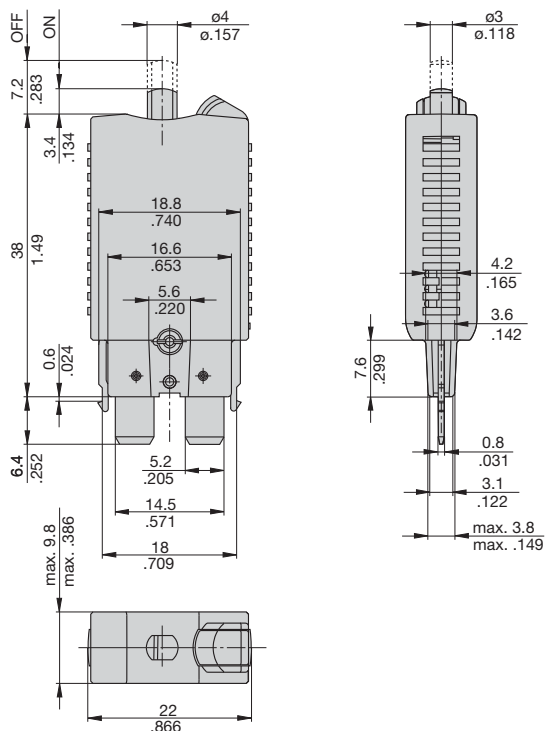
1170-...

Technical data

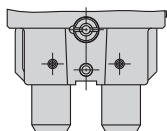
Voltage rating	DC 28 V
Current ratings	3...25 A (30 A upon request)
Typical life	at rated current: 3...25 A 6,000 operations at I_N 3...20 A 3,000 operations at $2 \times I_N$ 25 A 1,000 operations at $2 \times I_N$
Ambient temperature	-40...+85 °C (-40...+185 °F)
Interrupting capacity I_{cn}	400 A
Ultimate short-circuit breaking capacity	≥ 1 break operation at 2,000 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00
Vibration	10 g (57-500 Hz) \pm 0.76 mm (10-57 Hz), to IEC 60068-2-6, test Fc, 10 frequency cycles/axis
Shock	50 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. 13 g

Dimensions

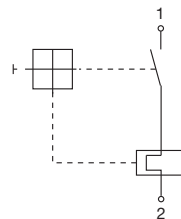
1170-21



1170-22

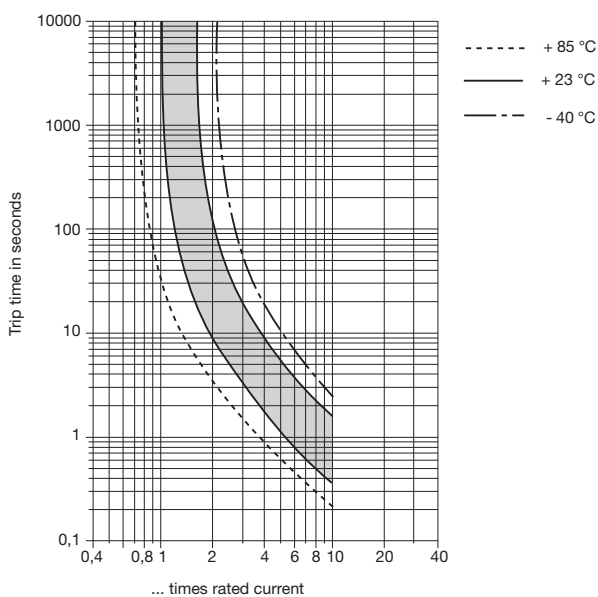


Internal connection diagram



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

3 ... 25 A



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	-40	-22	-4	+14	+32	+50
Ambient temperature °C	-40	-30	-20	-10	0	+10
Derating factor	0,77	0,80	0,84	0,89	0,94	0,96
Ambient temperature °F	+73.4	+104	+122	+140	+158	+185
Ambient temperature °C	+23	+40	+50	+60	+70	+85
Derating factor	1	1,08	1,16	1,24	1,33	1,42