

# E-T-A® Thermal Automotive Circuit Breaker 1170-...

## 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.

## Typical applications

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



1170-...

## Ordering information

Type No.	
1170	plug-in
Design standard	
01	blade terminals for automotive fuse blocks (standard) with retaining clips
02	blade terminals for automotive fuse blocks, without retaining clips
21	as design 01 but with higher interrupting capacity
22	as design 02 but with higher interrupting capacity
31	blade terminals for automotive fuse blocks with retaining clips and ribs for higher pull-out force
Current ratings	
3...25 A	

1170 - 01 - 15 A ordering example

Please enquire for packaging quantities.

## 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	< 150	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)

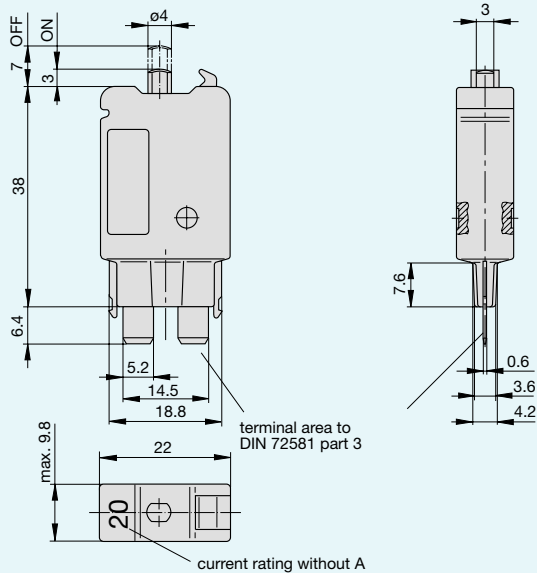
## Technical data

Voltage rating	DC 28 V (AC to special order)
Current ratings	3...25 A
Typical life	6,000 operations at $I_N$ 3,000 operations at $2 \times I_N \leq 20$ A 1,000 operations at $2 \times I_N \geq 25$ A
Ambient temperature	-30...+60 °C
Interrupting capacity $I_{cn}$	3...15 A 200 A (1170-01/-02/-31) 3...15 A 400 A (1170-21/-22) 20...25 A 400 A
Ultimate short-circuit breaking capacity	$\geq 1$ break operation at 2000 A
Degree of protection (IEC 529/DIN 40050)	operating area IP 40 terminal area IP 00
Vibration	3 or 4 A: 8 g (57-500 Hz) $\pm 0.65$ mm (10-57 Hz) 5...25 A: 10 g (57-500 Hz) $\pm 0.76$ mm (10-57 Hz), to IEC 68-2-6, Test Fc, 10 frequency cycles/axis
Shock	3 or 4 A: 35 g (11 ms) 5...25 A: 50 g (11 ms) to IEC 68-2-27, test Ea
Corrosion	96 hours at 5 % salt mist, to IEC 68-2-11, test Ka
Humidity	240 hours at 95 % RH to IEC 68-2-3, test Ca
Mass	approx. 13 g

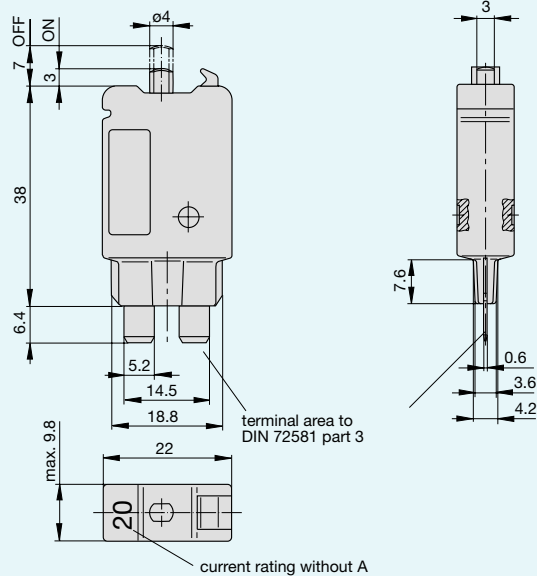
# E-T-A® Thermal Automotive Circuit Breaker 1170-...

## Dimensions

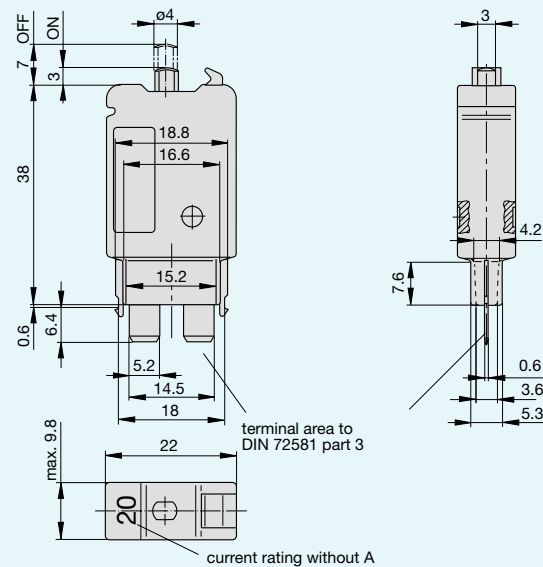
### 1170-01/-21



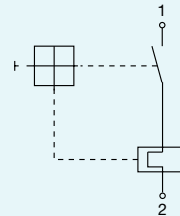
### 1170-02/-22



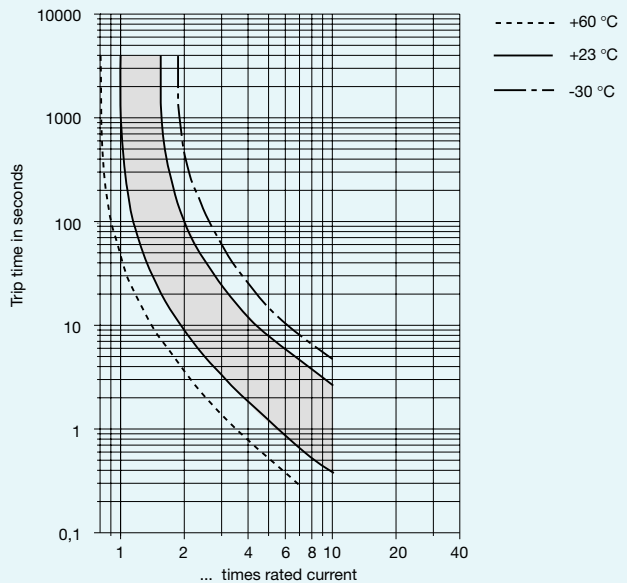
### 1170-31



## Internal connection diagram



## Typical time/current characteristics at +23 °C

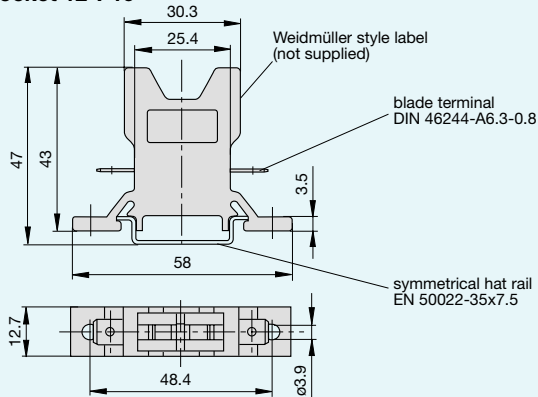


The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section 9 - Technical information.

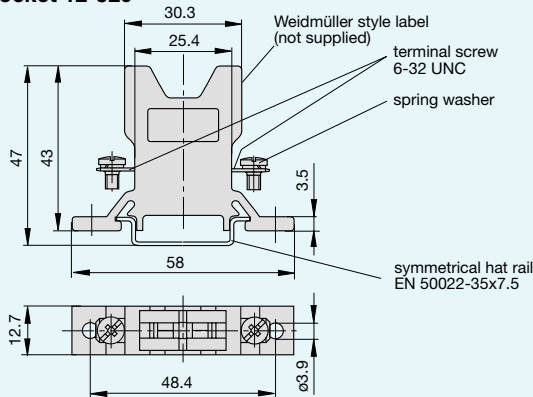
Ambient temperature °C	-30	-20	-10	0	+23	+40	+50	+60
Multiplication factor	0.8	0.84	0.88	0.92	1	1.08	1.16	1.24

## Accessories

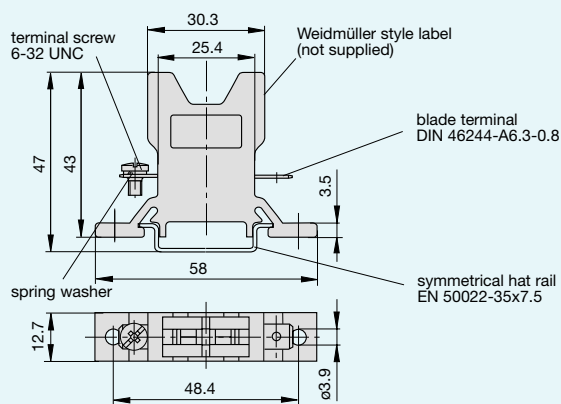
### Socket 12-P10



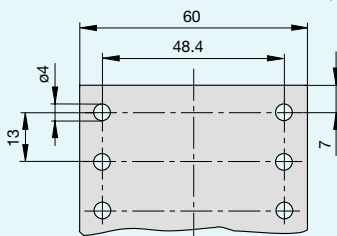
### Socket 12-J20



### Socket 12-A10



### Dimensions for surface mounting



Other sockets available to special order

Labels: Weidmüller, D-33102 Paderborn

## Ordering information Mounting socket 12

Type No.	
12	Mounting socket
Terminal design	
P10	blade terminals A 6.3-0.8
J20	screw terminals 6-32 UNC
A10	1 blade terminal A6.3-0.8 / 1 screw terminal 6-32 UNC
Version	
...	blank: single socket
20	two-way
30	three-way
40	four-way
60	six-way

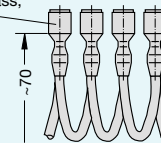
12 - P10 - 20 ordering example

## Accessories for mounting socket 12

### Connector bus links -P10

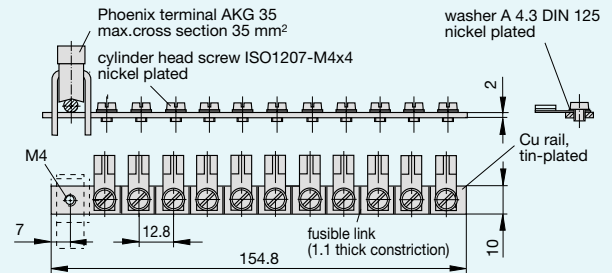
- X 210 588 01/1.5 mm<sup>2</sup> (brown), up to 13 A max. load
- X 210 588 02/2.5 mm<sup>2</sup> (black), up to 20 A max. load
- X 210 588 03/2.5 mm<sup>2</sup> (red), up to 20 A max. load
- X 210 588 04/2.5 mm<sup>2</sup> (blue), up to 20 A max. load

100 quick-connect tabs 6.3  
DIN 46247 tinned brass,  
insulated



### Bus bar (up to 100 A max. load)

- X 211 157 01 with terminal
- X 211 157 02 without terminal



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