

## 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.

Type III to SAE J 553.

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

## Typical applications

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

## Ordering information

Type No.	
1170	plug-in
	<b>Design standard</b>
21	blade terminals for automotive fuse blocks (standard) with retaining clips
22	blade terminals for automotive fuse blocks, without retaining clips
	<b>Current ratings</b>
	3...25 A
1170 - 21 - 15 A ordering example	

## Preferred types

Preferred types	Standard current ratings (A)									
	3	4	5	6	7.5	8	10	15	20	25
1170-21-	x	x	x	x	x	x	x	x	x	x
1170-22-	x	x	x	x	x	x	x	x	x	x

## 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)



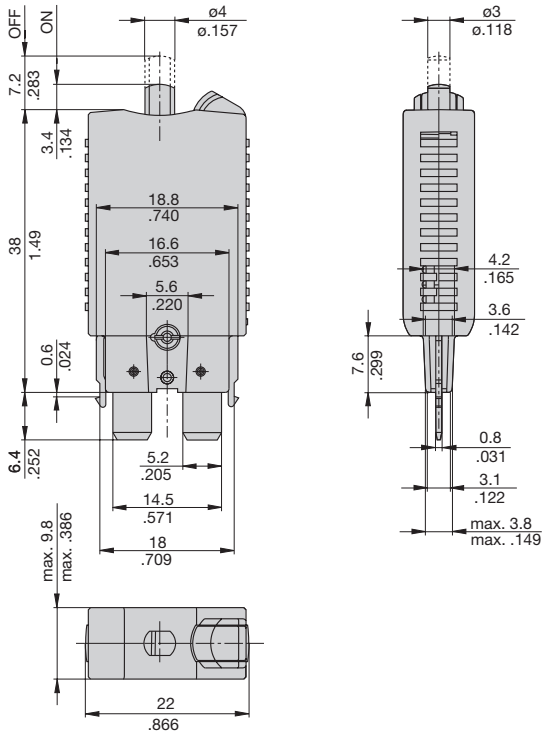
1170-...

## Technical data

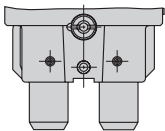
Voltage rating	DC 28 V
Current ratings	3...25 A (30 A upon request)
Typical life	at rated current: 3...25 A 6,000 operations at $I_N$ 3...20 A 3,000 operations at $2 \times I_N$ 25 A 1,000 operations at $2 \times I_N$
Ambient temperature	-40...+85 °C (-40...+185 °F)
Interrupting capacity $I_{cn}$	400 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) ± 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 60068-2-78, test Cab
Mass	approx. 13 g

**Dimensions**

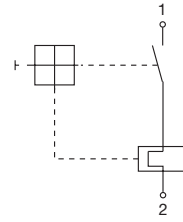
**1170-21**



**1170-22**

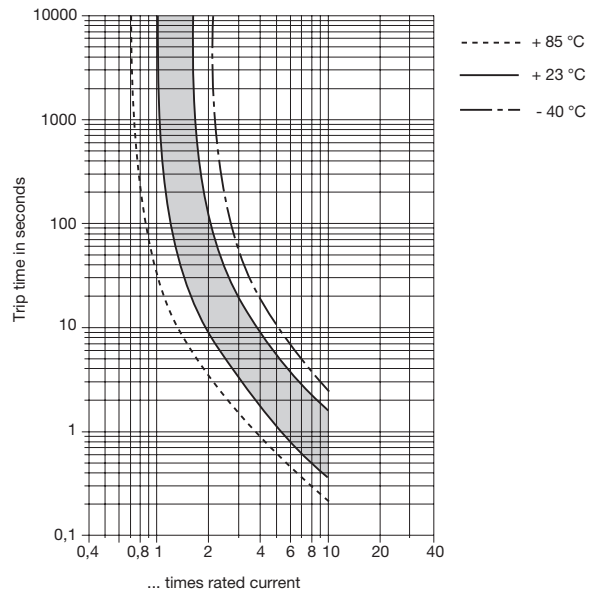


**Internal connection diagram**



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

**3...25 A**



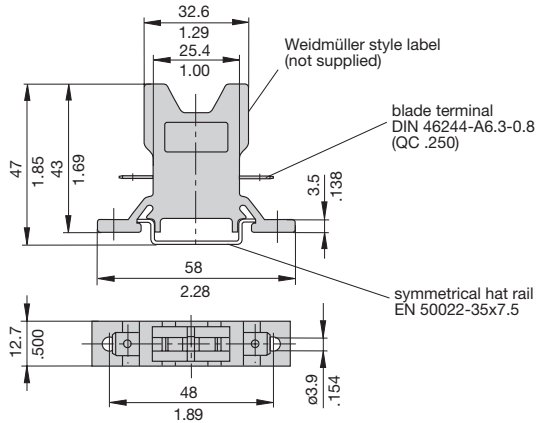
The time/current characteristic curve depends on the ambient temperature prevailing. In order to eliminate nuisance tripping, please multiply the circuit breaker current ratings by the derating factor shown below. See also section Technical information.

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

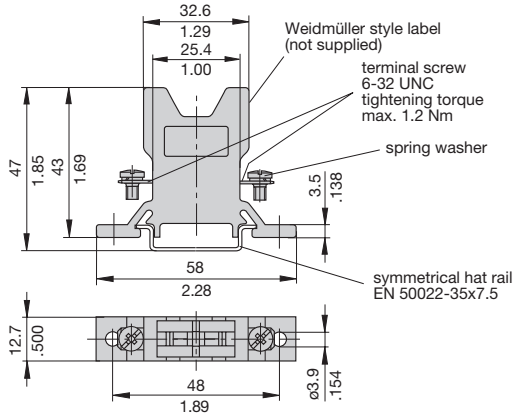
This is a metric design and millimeter dimensions take precedence ( $\frac{\text{mm}}{\text{inch}}$ )

**Accessories**

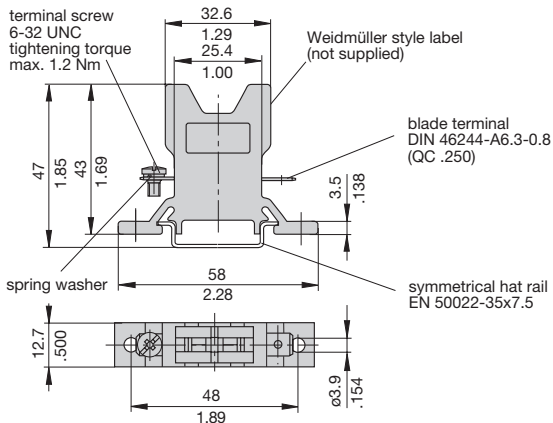
**Socket 12-P10**



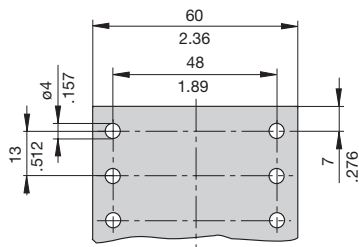
**Socket 12-J20**



**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 A6.3-0.8 (QC .250)

**J20** screw terminals 6-32 UNC

**A10** 1 blade terminal A6.3-0.8 (QC .250)/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**

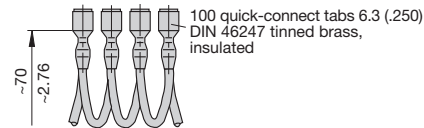
**Connector bus links -P10**

**X 210 588 01/** 1.5 mm<sup>2</sup> (AWG 16), brown (up to 13 A max. load)

**X 210 588 02/** 2.5 mm<sup>2</sup> (AWG 14), black (up to 20 A max. load)

**X 210 588 03/** 2.5 mm<sup>2</sup> (AWG 14), red (up to 20 A max. load)

**X 210 588 04/** 2.5 mm<sup>2</sup> (AWG 14), blue (up to 20 A max. load)

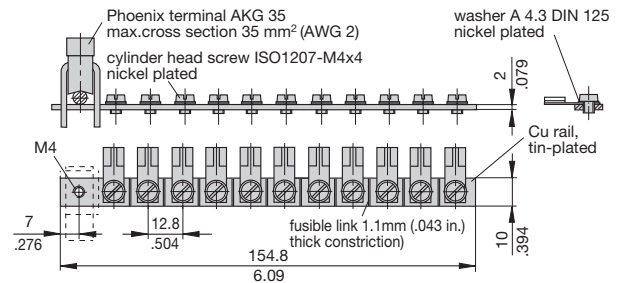


**Bus bar (supplied as a complete package)**

(up to 100 A max. load)

**X 211 157 01** with terminal

**X 211 157 02** without terminal



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

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.

