

## Description

Single pole compact high performance thermal circuit breaker with tease-free, trip-free, snap action mechanism and push/pull on/off manual actuation (M-type TO CBE to EN 60934). An indicator band on the push button clearly shows the tripped/off position. Threadneck panel mounted in tracked vehicle and aircraft/general purpose versions, with optional auxiliary contacts.

## Typical applications

Extra low voltage wiring systems on all types of vehicles for land, sea and air, battery powered machines, process control.

## Ordering information

### Type No.

482 single pole thermal circuit breaker

### Mounting

G threadneck panel mounting

### Threadneck design

- 1 M 12x1 nickel plated
- 2 M 12x1 black
- 3 15/32-UN-2A black
- 6 M12x1x8 black, without locating pin, push button marking as with 482-G2..
- 7 M12x1x6,4 black, without locating pin, push button marking as with 482-G1..

### Hardware - washer for threadneck

- 0 without hardware
- 1 corrugated washer 12/15, fitted
- 2 serrated lock washer 12/15, fitted (MS 35333-136)
- 3 serrated lock washer 12/15, bulk shipped (MS 35333-136)

### Hardware - hex nut for threadneck

- 0 without hardware
- 1 hex nut M12x1 nickel plated
- 2 hex nut M12x1 black
- 3 hex nut 15/32-UN-2B black, fitted
- 4 hex nut 15/32-UN-2B black, bulk shipped

### Terminal design (main terminals)

- K1 screw terminals with metric thread M4
- J1 screw terminals with inch thread 8-32-UNC-2B
- R1 round connector ø6

### Characteristic curve

M1 thermal 1.15-1.4 I<sub>N</sub>

### Terminal screws

- A flat head screw M4x6, ISO 1580, fitted
- B Phillips screw 8-32UNC-2Ax6 (MS 51957-41), fitted
- F Phillips screw M4x6 (ISO 7045), bulk shipped
- H socket head cap screw M4x6 (DIN 7984), fitted
- K hex screw 8-32UNC-3Ax7.6 fitted

### Terminal washers

- 0 without lock washer
- 1 lock washer DIN 137-B4, fitted
- 2 lock washer 4.3, fitted, MS 35338-137
- 3 lock washer 4.3, bulk shipped (MS 35338-137)
- 5 lock washer 4.3/9, fitted
- 6 lock washer DIN 137-B4, bulk shipped

### Auxiliary contact

- S0 without auxiliary contacts
- S1 with auxiliary contact (NC)
- S5 with polarized aux. contact (NC)

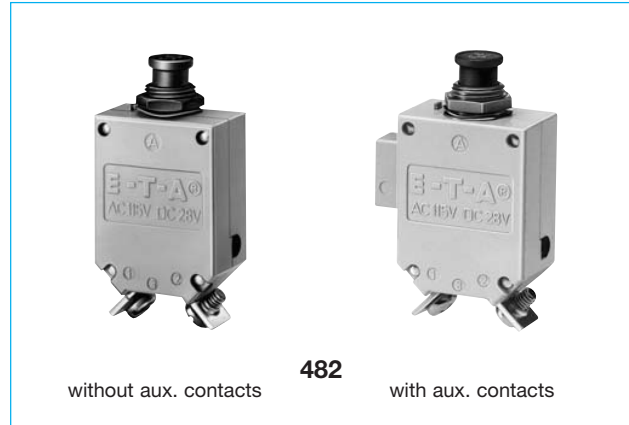
### Barrier

- (blank) without barrier
- T with barrier, 31 mm wide

### Current ratings

0.1...50 A

482 - G 1 1 1 - K1 M1 - A 1 S1 . - 10 A ordering example



without aux. contacts

482

with aux. contacts

## Technical data

Voltage rating	AC 115 V (400 Hz); DC 28 V AC 230 (50/60 Hz) to special order		
Current rating range	0.1...50 A		
Auxiliary circuit	0.5 A, DC 28 V		
Typical life	10,000 operations mechanical 5,000 operations at I <sub>N</sub>		
Ambient temperature	-55...+75 °C (-67...+167 °F)		
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage	pollution degree 3	
	1.5 kV		
Dielectric strength (IEC 60664 and 60664A)	test voltage	operating area	
	AC 1,500 V	main to aux. circuit	
	AC 1,500 V		
Insulation resistance	> 100 MΩ (DC 500 V)		
Interrupting capacity I <sub>cn</sub>	0.1...2.5 A	15 x I <sub>N</sub>	
	3...3.5 A	250 A DC / 150 A AC	
	4...7 A	500 A	
	7.5...50 A	6,000 A DC / 1,000 A AC	
	35...50 A	with auxiliary contact: 3,000 A DC / 1,000 A AC	
Interrupting capacity (UL 1077)	I <sub>N</sub> 0.1...50 A	U <sub>N</sub> DC 72 V	5,000 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00		
Vibration	10 g (55-2000 Hz), ± 0.76 mm (10-55 Hz) to VG 95210, sheet 19/IEC 60068-2-6, test Fc		
Shock	50 g (11 ms) to VG 95210, sheet 28/IEC 60068-2-27, test Ea		
Corrosion	48 hours at 5 % salt mist to VG 95210, sheet 2/IEC 60068-2-11, test Ka		
Humidity	240 hours at 95 % RH to VG 95210, sheet 7/IEC 60068-2-3, test C		
Explosion	to VG 95210, sheet 10/MIL-STD-202, meth. 109		
Mass	approx. 43 g without auxiliary contact approx. 46 g with auxiliary contact		

## Approvals

Authority	Voltage ratings	Current ratings
VG 95345 T21	DC 28 V	0.1...50 A
QPL, Canada	DC 28 V	0.5...35 A
UL, CSA	DC 72 V	0.1...50 A

Previous ordering codes:

482-N-MS = 482-G111-K1M1-A1S0-...A

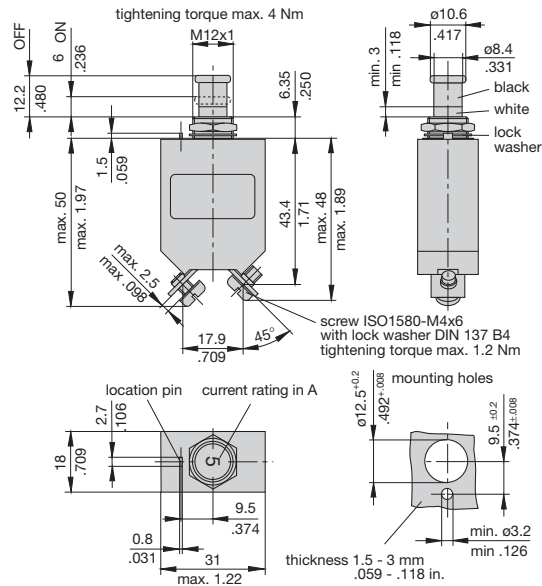
482-MS = 482-G212-K1M1-A1S0-...A

## Standard current ratings and typical volt drop values

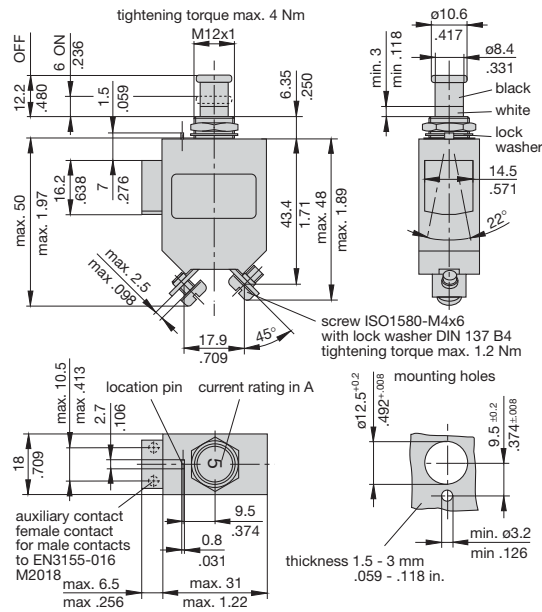
Current rating (A)	Volt drop (mV)	Current rating (A)	Volt drop (mV)
0.1	16,000	5	350
0.2	8,000	7.5	230
0.5	3,000	10	< 200
0.8	2,000	15	< 200
1	1,500	20	< 200
1.2	1,200	25	< 200
1.5	1,000	30	< 200
1.8	850	35	< 200
2	800	40	< 200
2.5	700	45	< 200
3	600	50	< 200
4	430		

## Dimensions 482-G1...

### 482-G111-K1M1-A1S0 (VG 95345 T21)

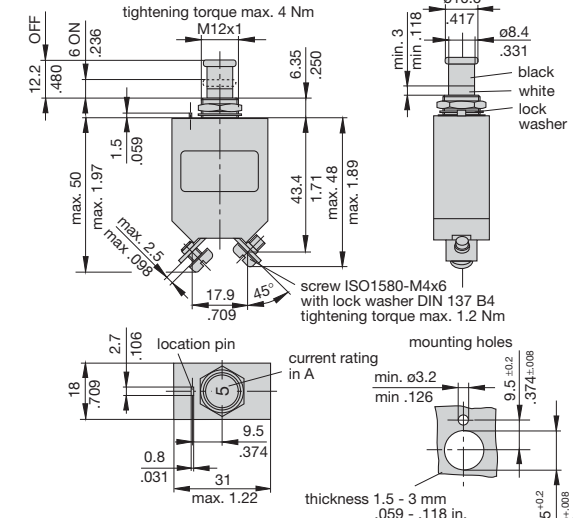


### 482-G111-K1M1-A1S1 (VG 95345 T21) 482-G111-K1M1-A1S5

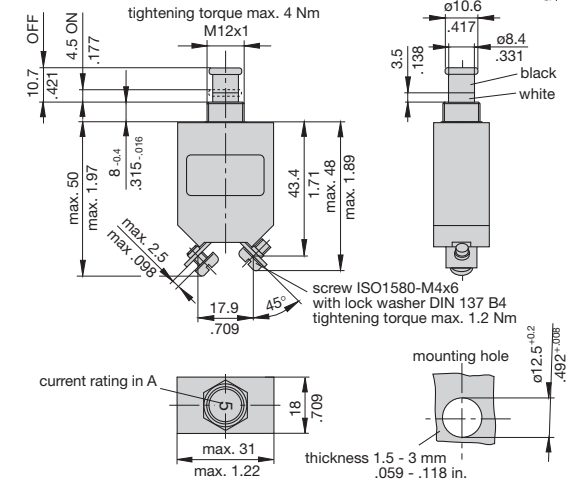


## Dimensions 482-G2../-G6../-G7...

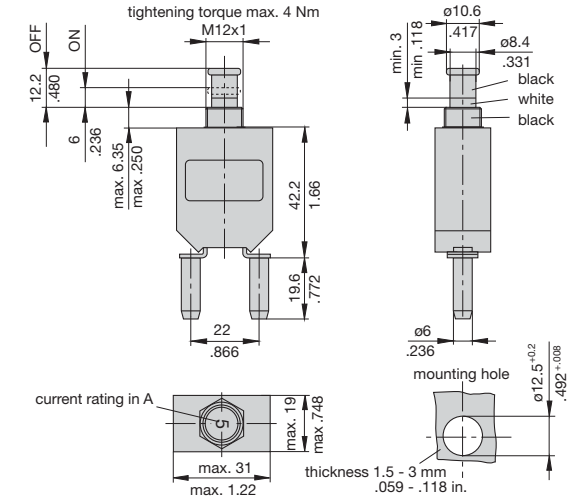
### 482-G212-K1M1-A1S0 (VG 95345 T21)



### 482-G600-K1M1-A1S0



### 482-G700-R1M1-Z0S0



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

