

## Description

Single pole, miniaturised, aircraft style 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, available in metric and US (MS 3320) configurations. Advanced two-chamber design contributes to fail-safe operation. Temperature compensated from -55 °C to +125 °C, with optional auxiliary contacts, and fully approved for use on a wide range of aircraft and equipment. Full specification ensures suitability for the most demanding applications. For three pole version see type 583.

## Typical applications

Aircraft systems and equipment (fixed wing and helicopters); other extra low voltage wiring applications; defence equipment; communications systems.

## Standard current ratings and typical volt drop values

Current rating (A)	Volt drop (mV)	Current rating (A)	Volt drop (mV)
1	750	10	190
2	520	15	190
2.5	400	20	200
3	360	25	170
4	350	30	160
5	260	35	150
7.5	230		

## Approvals

Authority	Standard	Rated voltage	Current ratings
UL	UL 1077	AC 250 V DC 75 V	1 A...25 A 1 A...35 A
CSA	C22.2 No 235	AC 250 V DC 75 V	1 A...25 A 1 A...35 A
Bw	VG 95345, part 6	AC 115 V, 400 Hz DC 28 V	1 A...25 A 1 A...25 A
Bw	LN 29886	AC 115 V, 400 Hz DC 28 V	1 A...25 A 1 A...25 A
QPL Canada Dep. of National Defence	VG 95345, part 6	AC 115 V, 400 Hz DC 28 V	1 A...25 A 1 A...25 A
QPL Sweden Defence Material Admin.	LN 29886 MS 3320	AC 115 V, 400 Hz DC 28 V	1 A...25 A 1 A...25 A
QPL UK Ministry of Defence	LN 29886	AC 115 V, 400 Hz DC 28 V	1 A...25 A 1 A...25 A
Dep. of the Navy	MS 3320 (V)	AC 115 V, 400 Hz DC 28 V	1 A...20 A 1 A...20 A



## Technical data

For further details please see: [www.e-t-a.de/ti\\_e](http://www.e-t-a.de/ti_e)

Voltage rating	AC 115 V (300 Hz to 800 Hz); DC 28 V (higher voltage ratings upon request)	
Current rating range	1...35 A	
Auxiliary circuit	0.5 A, DC 28 V	
Typical life	20,000 operations mechanical or 10,000 operations at $I_N (\leq 25 \text{ A})$ 5,000 operations at $I_N (30 + 35 \text{ A})$	
Ambient temperature	-55...+125 °C (-67...+257 °F)	
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage 1.5 kV	pollution degree 3
Dielectric strength (IEC 60664 and 60664A)	test voltage operating area main to aux. circuit	AC 1,500 V AC 1,500 V
Insulation resistance	> 100 MΩ (DC 500 V)	
Interrupting capacity $I_{cn}$	AC 115 V (400 Hz): 5 A      2,000 A 7.5...35 A    2,500 A DC 28 V: 1...25 A    6,000 A 30 + 35 A    4,000 A	
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00	
Vibration (sinusoidal)	15 g (70-2000 Hz), ± 0.76 mm (5-70 Hz) to VG 95210, sheet 19, IEC 60068-2-6, test Fc/ISO 7137	
Vibration (random)	16.4 g rms, 0.2 g <sup>2</sup> /Hz ± 1.5 dB to VG 95210, sheet 29, ISO 7137	
Acceleration	17 g, to ISO 2669	
Shock	75 g (11 ms) to VG 95210, sheet 28, IEC 60068-2-27, test Ea/ISO 7137	
Corrosion	96 hours at 5 % salt mist, severity A 48 hours at 20 % salt mist, severity B to VG 95210, sheet 2, IEC 60068-2-11, test Ka/ISO 7137	
Humidity	240 hours at 95 % RH, to VG 95210, sheet 7, IEC 60068-2-3, test C/ISO 7137	
Explosion	to VG 95210, sheet 10, MIL-STD-202, meth. 109	
Altitude	≤ 25,000 m above sea level	
Mass	max. 29 g with auxiliary contact max. 25 g without auxiliary contact	

**Weight reduction through aluminium threadneck: approx. 3 g**

## Ordering information

<b>Type No.</b>	
483	single pole, with temperature compensation
<b>Mounting</b>	
G	threadneck panel mounting, standard
<b>Threadneck design</b>	
1	M12x1x6.4x8.8 dia. with mounting plate (aux. contact version)
3	MJ12x6.4x8.8 dia. (without aux. contact)
4	M12x1x6.4x8.8 dia. (without aux. contact)
5	7/16-32UNx6.4x7.8 dia. (without aux. contact)
6	M12x1x9.4x8.8 dia. (without aux. contact)
<b>Hardware for threadneck (washers)</b>	
0	without hardware
1	wave washer 12/15 - mounted
2	mounted washer 12.1/17.2 - mounted
3	mounted washer 11.3/14.9 - mounted (threadneck design 5,7 only)
<b>Hardware for threadneck (nuts)</b>	
0	without hardware
1	hex nut M12x1 (threadneck design 1, 4, 6 only)
3	hex nut 7/16-32UN (threadneck design 5, 7 only)
4	hex nut M12x1, aluminium, fitted (threadneck design 8 only)
5	hex nut MJ12x1 (only with threadneck design 3)
<b>Terminal design (main terminals)</b>	
<b>K</b> screws terminals with metric thread	
1	K14 (M4, MJ4)
<b>J</b> screw terminals with inch thread	
1	J14 (8-32UNC-2B)
2	J17 (8-32UNC-2B)
3	J25 (6-32UNC-2B)
<b>Characteristic curve</b>	
M1	thermal, 1.15-1.38 I <sub>N</sub>
<b>Terminal screws</b>	
A	Phillips screw M4x6
B	Phillips screw 8-32UNC-2Ax6 (MS 51957-41)
C	Phillips screw 6-32UNC-2Ax6 (MS 51957-26)
D	slotted flat head screw M4x6
E	hex screw with Phillips head 8-32UNC-3A-9.5
L	Phillips screw MJ4x6
Z	without accessories
<b>Terminal washers</b>	
0	without lock washer
1	lock washer B4
2	lock washer 4.3 (MS 35338-137)
4	lock washer 3.7 (MS 35338-136)
<b>Auxiliary contact</b>	
S0	without auxiliary contact
S1	with auxiliary contact (N/C) connector to EN3155-016M2018, size 20
S5	with polarized auxiliary contact (N/C)
<b>Barrier</b>	
Z	without barrier (standard)
<b>Colour of the push button</b>	
blank: black (standard) (e. g. 7.5)	
N	black, marking to EN (e. g. 7 1/2)
<b>Current ratings</b>	
1...35 A	
483 - G 4 1 1 - K 1 M1 - A 1 S0 Z . - 5 A ordering example	

Please be informed that we have minimum ordering quantities to be observed.

## Ordering information for approved devices

### 483-G411-K1M1-A1S0ZN

Metric threadneck M12x1 and terminal design -K14 (M4x6), listed by the German Materialamt der Bundeswehr to VG 95345 T06.

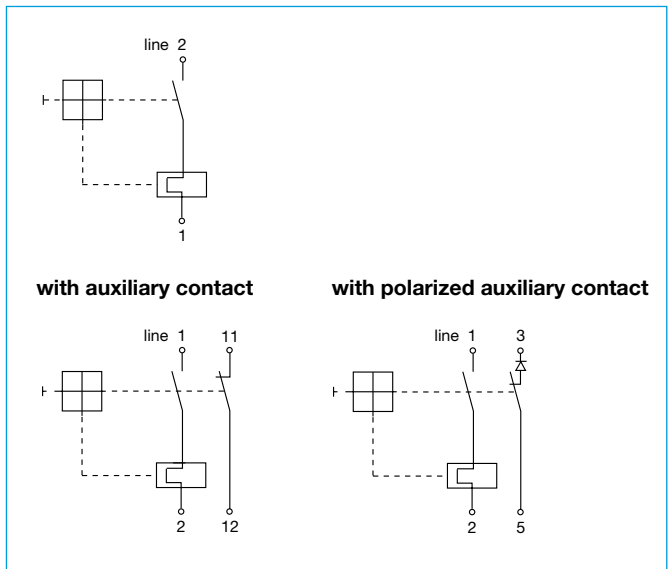
### 483-G533-J1M1-B2S0ZN (MS 3320)

Threadneck size 7/16-32UNSx6.4 and terminal design -J14 (inch thread 8-32), approved to MS 3320.

### 483-G533-J3M1-C4S0Z (483-TC-G11-J25)

Threadneck size 7/16-32UNSx6.4 and terminal design -J25 (inch thread 6-32), listed by the German Materialamt der Bundeswehr to VG 95345, part 6.

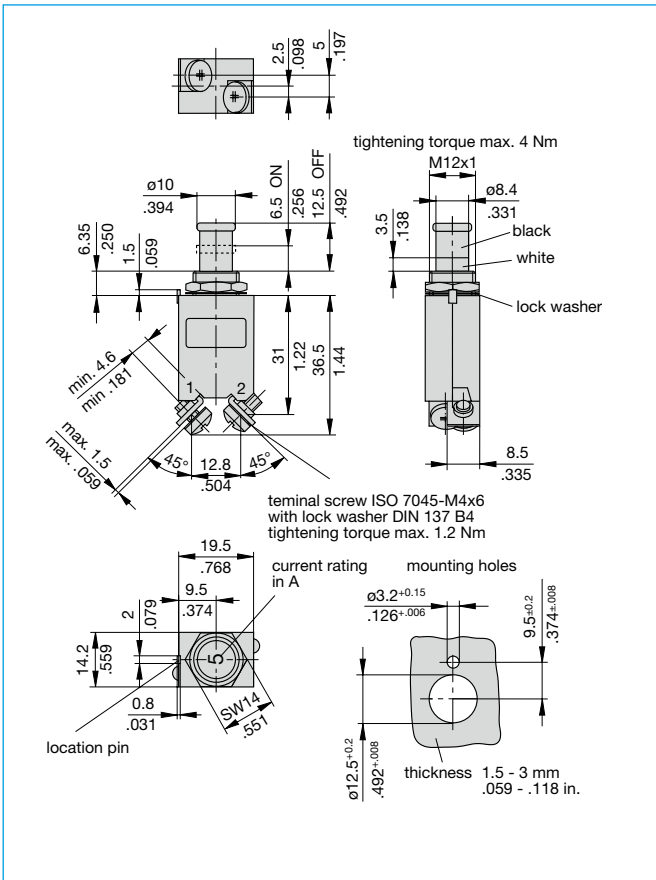
## Internal connection diagrams



## Preferred types

Preferred types	Standard current ratings (A)												
	1	2	2.5	3	5	6	7.5	10	15	20	25	30	35
483-G411-K1M1-A1S0Z-	x	x	x	x	x	x	x	x	x	x	x	x	x
483-G411-K1M1-A1S0ZN- (VG 95345 T06)	x	x	x	x	x	x	x	x	x	x	x	x	x

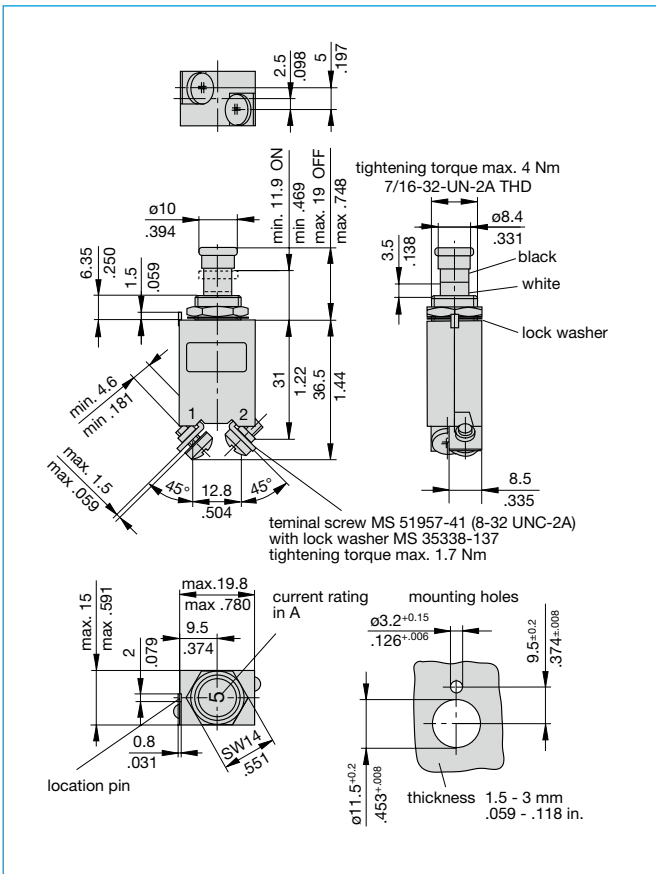
## Dimensions 483-G411-K1M1-A1S0ZN (VG 95345 T06)



## Dimensions 483-G111-K1M1-A1S1ZN (VG 95345 T06)



## Dimensions 483-G533-J1M1-B2S0ZN (MS 3320)



## Mounting



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