

## 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° 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	Voltage ratings	Current ratings
LN 29886		
VG 95345 T06		
MS 3320, MS 3320 V		
QPL		
UL	AC 250 V, 50/60 Hz DC 75 V	1...25 A 1...35 A



## Technical data

Voltage rating	AC 115 V (400 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) operating area main to aux. circuit	test voltage 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	
<b>Weight reduction through aluminium threadneck: approx. 3 g</b>		

## Ordering information

<b>Type No.</b>	483	single pole, with temperature compensation
<b>Mounting</b>		
<b>G</b>		threadneck panel mounting, standard
<b>V</b>		threadneck panel mounting, high vibration performance
<b>Threadneck design</b>		
<b>1</b>		M12x1x6.4x8.8 dia. with mounting plate (aux. contact version)
<b>2</b>		15/32-32UNx6.4x7.8 dia. (without aux. contact)
<b>3</b>		MJ12x6.4x8.8 dia. (without aux. contact)
<b>4</b>		M12x1x6.4x8.8 dia. (without aux. contact)
<b>5</b>		7/16-32UNx6.4x7.8 dia. (without aux. contact)
<b>6</b>		M12x1x9.4x8.8 dia. (without aux. contact)
<b>7</b>		7/16-32 UNx6.4x7.8 dia. with mounting plate (aux. contact version)
<b>8</b>		as 483-G1...but with aluminium threadneck (only mounting -G and aux. contact versions S1, S5)
<b>Hardware for threadneck (washers)</b>		
<b>0</b>		without hardware
<b>1</b>		wave washer 12/15 - mounted
<b>2</b>		mounted washer 12.1/17.2 - mounted
<b>3</b>		mounted washer 11.3/14.9 - mounted (threadneck design 5, 7 only)
<b>4</b>		mounted washer 12/15 - mounted
<b>5</b>		tooth washer 12.1/17.2, bulk shipped
<b>Hardware for threadneck (nuts)</b>		
<b>0</b>		without hardware
<b>1</b>		hex nut M12x1 (threadneck design 1, 4, 6 only)
<b>2</b>		hex nut 15/32-32UN (threadneck design 2 only)
<b>3</b>		hex nut 7/16-32UN (threadneck design 5, 7 only)
<b>4</b>		hex nut M12x1, aluminium, fitted (threadneck design 8 only)
<b>5</b>		hex nut MJ12x1 (only with threadneck design 3)
<b>6</b>		hex nut M12x1, bulk shipped (threadneck design 1,4,6)
<b>Terminal design (main terminals)</b>		
<b>K</b>		screws terminals with metric thread
<b>1</b>		K14 (M4, MJ4)
<b>J</b>		screw terminals with inch thread
<b>1</b>		J14 (8-32UNC-2B)
<b>2</b>		J17 (8-32UNC-2B)
<b>3</b>		J25 (6-32UNC-2B)
<b>Characteristic curve</b>		
<b>M1</b>		thermal, 1.15-1.38 I <sub>N</sub>
<b>Terminal screws</b>		
<b>A</b>		Phillips screw M4x6
<b>B</b>		Phillips screw 8-32UNC-2Ax6 (MS 51957-41)
<b>C</b>		Phillips screw 6-32UNC-2Ax6 (MS 51957-26)
<b>D</b>		slotted flat head screw M4x6
<b>E</b>		hex screw with Phillips head 8-32UNC-3A-9.5
<b>K</b>		hex screw with Phillips head 8-32UNC-3Ax7.6
<b>L</b>		Phillips screw MJ4x6
<b>M</b>		as "K" but bulk shipped
<b>Z</b>		without accessories
<b>Terminal washers</b>		
<b>0</b>		without lock washer
<b>1</b>		lock washer B4
<b>2</b>		lock washer 4.3 (MS 35338-137)
<b>3</b>		lock washer B4 and washer 4.4/9.5
<b>4</b>		lock washer 3.7 (MS 35338-136)
<b>5</b>		lock washer 4.3/9
<b>Auxiliary contact</b>		
<b>S0</b>		without auxiliary contact
<b>S1</b>		with auxiliary contact (N/C) connector to EN3155-016M2018, size 20
<b>S5</b>		with polarized auxiliary contact (N/C)
<b>Barrier</b>		
<b>Z</b>		without barrier (standard)
<b>Colour of the push button</b>		
		blank: black (standard) (e. g. 7.5)
<b>A</b>		green (e. g. 7.5)
<b>G</b>		green, marking to EN (e. g. 7 1/2)
<b>N</b>		black, marking to EN (e. g. 7 1/2)
<b>Current ratings</b>		
		1...35 A
<b>483 - G 4 1 1 - K 1 M1 - A 1 S0 Z . - 5 A</b>		ordering example

## 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-G111-K1M1-A1S1ZN

Metric threadneck M12x1 and terminal design -K14 (M4x6) and auxiliary contact -Si, 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-V533-J1M1-B2S0ZN (MS 3320-V)

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

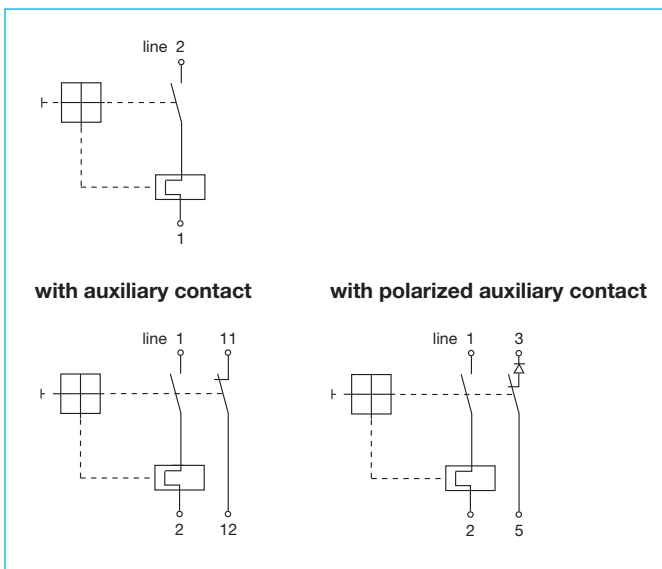
### 483-G533-J3M1-C4S0Z (483-TC-G11-J25)

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.

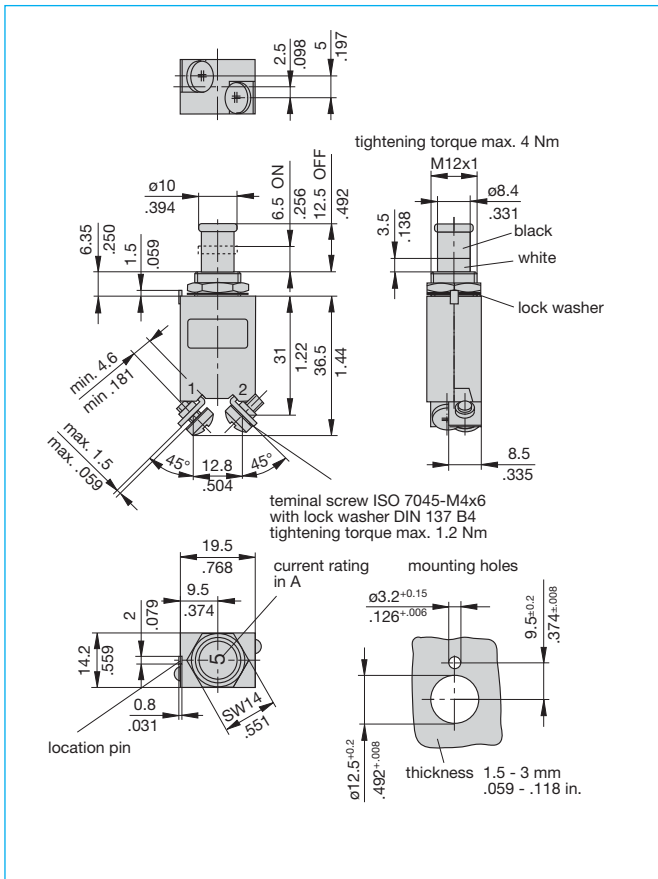
### 483-G814-K1M1-A1S1ZN

Aluminium threadneck M12x1x6.4x8.8 dia.

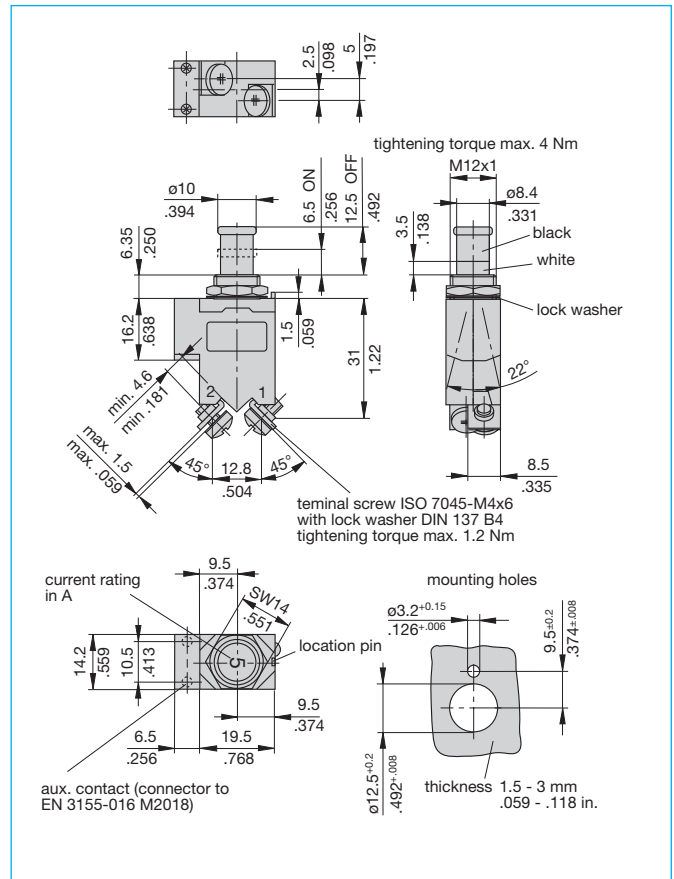
## Internal connection diagrams



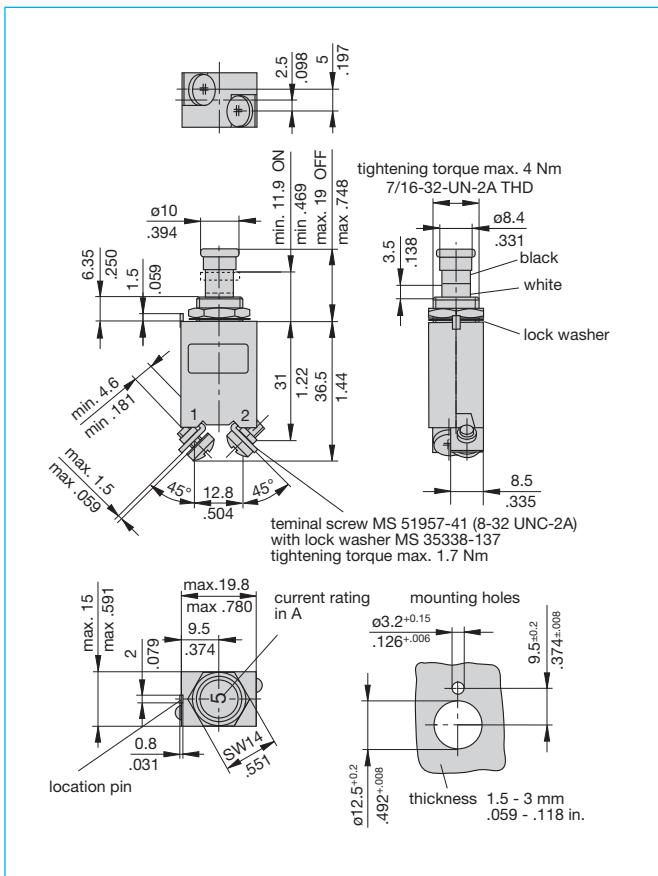
## Dimensions 483-G411-K1M1-A1S0ZN (VG 95345 T06)



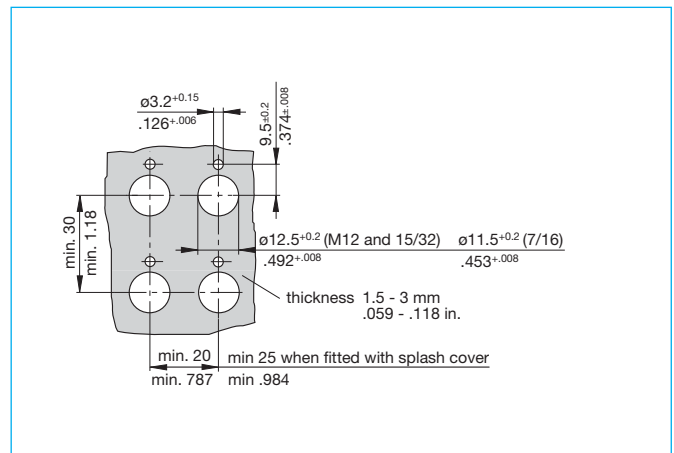
## Dimensions 483-G111-K1M1-A1S1ZN (VG 95345 T06)



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



## Mounting



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