

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

| | | |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 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 ² /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

| | |
|------------------------------------------------------------|--------------------------------------------------------------------|
| Type No. | |
| 483 | single pole, with temperature compensation |
| Mounting | |
| G | threadneck panel mounting, standard |
| Threadneck design | |
| 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) |
| Hardware for threadneck (washers) | |
| 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) |
| Hardware for threadneck (nuts) | |
| 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) |
| Terminal design (main terminals) | |
| K screws terminals with metric thread | |
| 1 | K14 (M4, MJ4) |
| J screw terminals with inch thread | |
| 1 | J14 (8-32UNC-2B) |
| 2 | J17 (8-32UNC-2B) |
| 3 | J25 (6-32UNC-2B) |
| Characteristic curve | |
| M1 | thermal, 1.15-1.38 I _N |
| Terminal screws | |
| 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 |
| Terminal washers | |
| 0 | without lock washer |
| 1 | lock washer B4 |
| 2 | lock washer 4.3 (MS 35338-137) |
| 4 | lock washer 3.7 (MS 35338-136) |
| Auxiliary contact | |
| S0 | without auxiliary contact |
| S1 | with auxiliary contact (N/C) connector to EN3155-016M2018, size 20 |
| S5 | with polarized auxiliary contact (N/C) |
| Barrier | |
| Z | without barrier (standard) |
| Colour of the push button | |
| blank: black (standard) (e. g. 7.5) | |
| N | black, marking to EN (e. g. 7 1/2) |
| Current ratings | |
| 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.

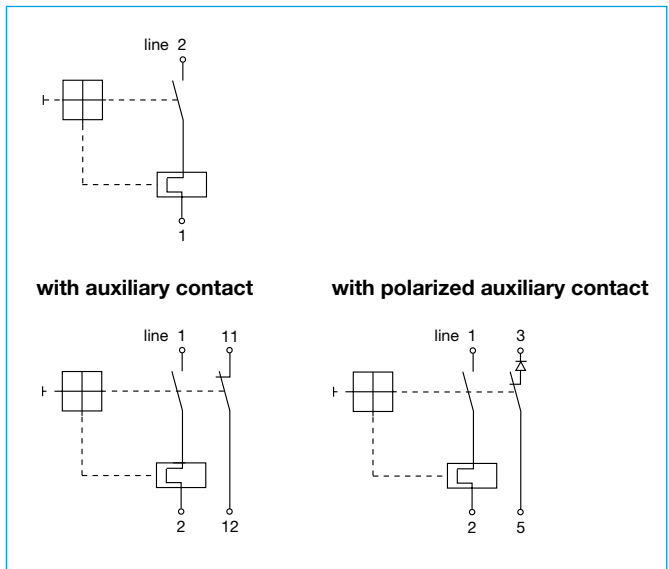
483-G533-J1M1-B2S0ZN (MS 3320)

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.

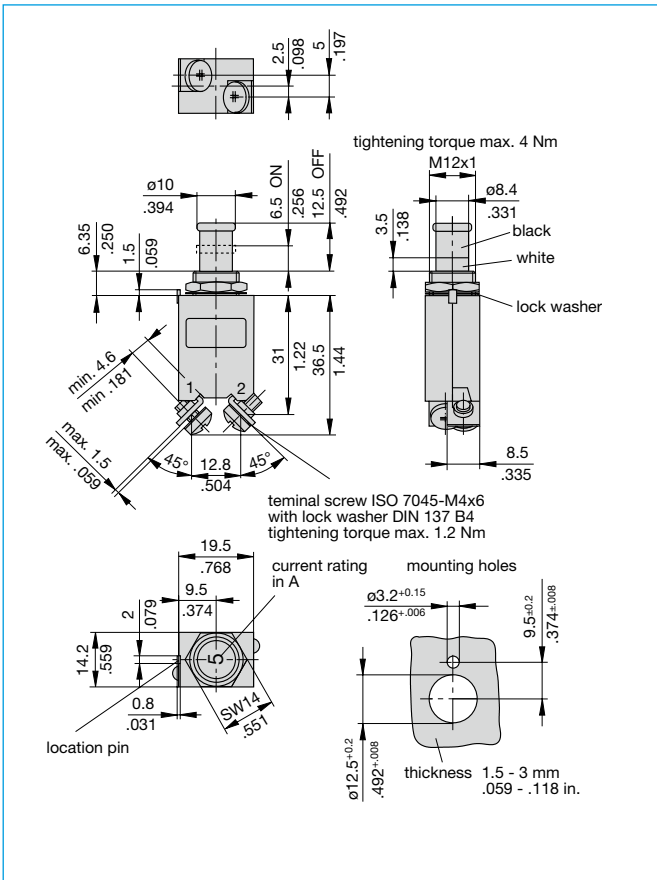
Internal connection diagrams



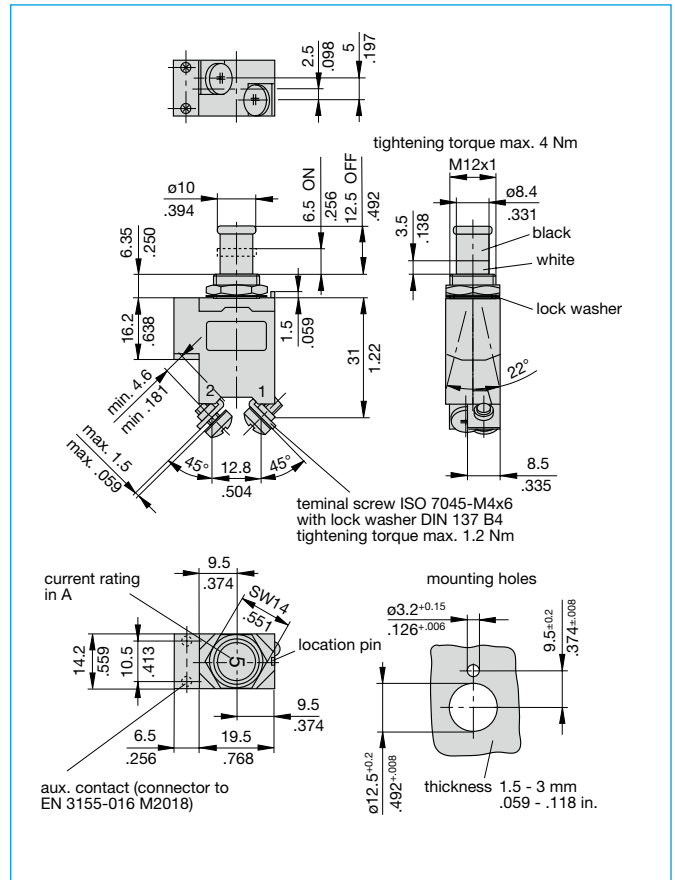
Preferred types

| 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 |

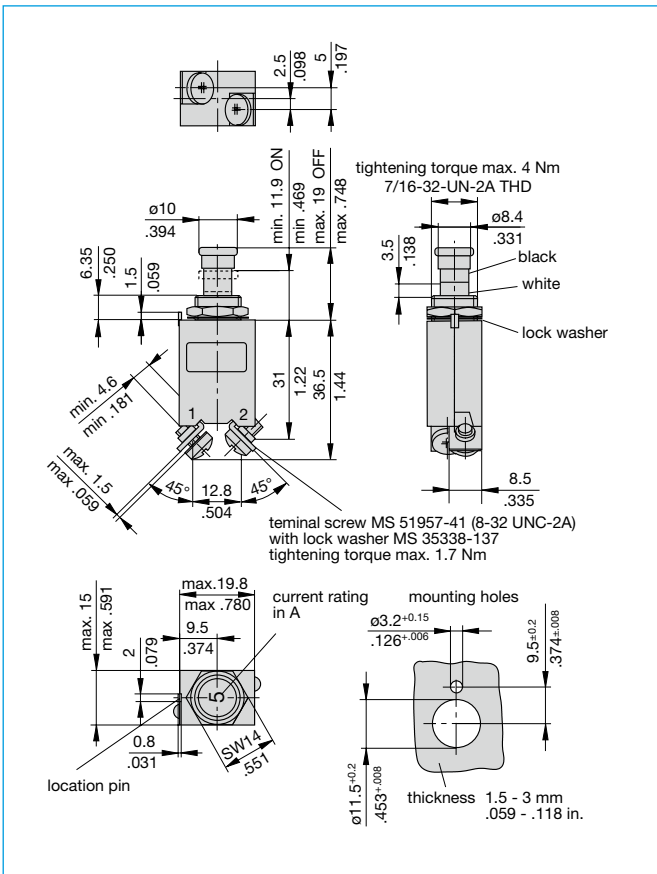
Dimensions 483-G411-K1M1-A1S0ZN (VG 95345 T06)



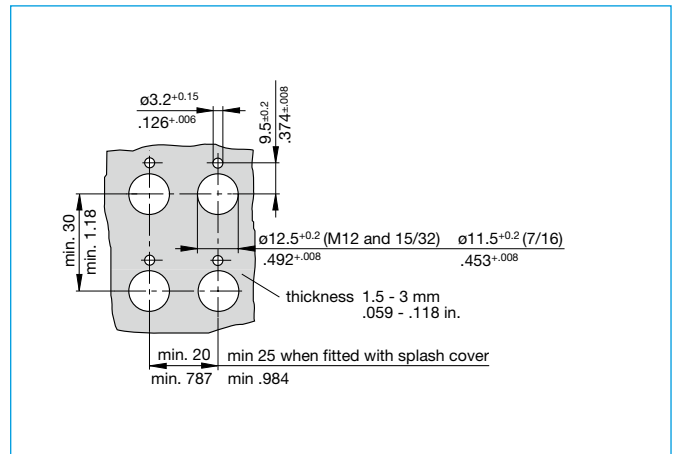
Dimensions 483-G111-K1M1-A1S1ZN (VG 95345 T06)



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



Mounting



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