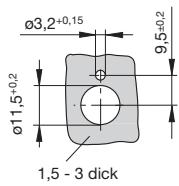
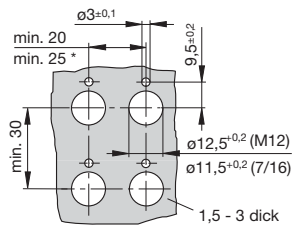


Einbauöffnungen

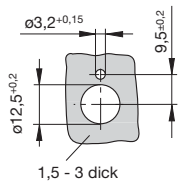
4120-G2....



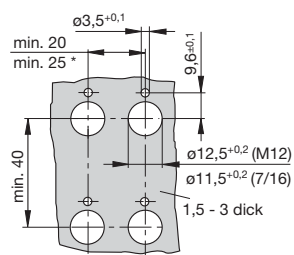
Einblaulöcher S0



4120-G1....



Einblaulöcher S1 oder S5

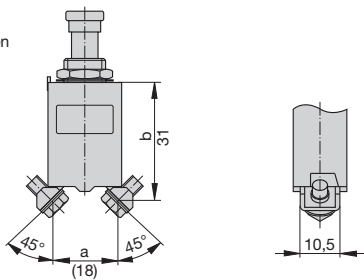


* min. 25 für Einbau mit Schutzkappe

Weitere Anschlussarten

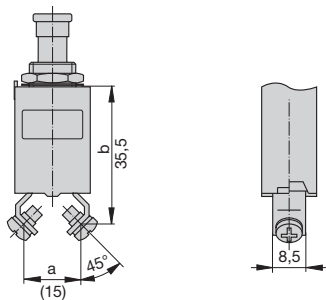
Anschluss -J2

Abstand zwischen den Anschlüssen bei:
MS 14 105 (a, b)
MS 14 153 (a, b)
MS 22 073 (a)
MS 22 074 (a)
MS 25 244 (a)
MS 25 373 (a, b)

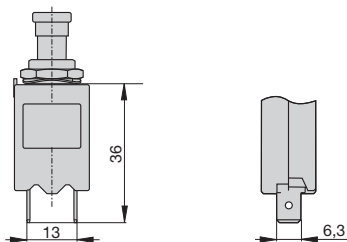


Anschluss -J3

Abstand zwischen den Anschlüssen bei:
MS 26 574 (a, b)

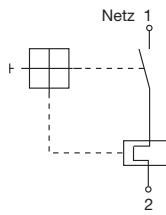


Anschluss -P1

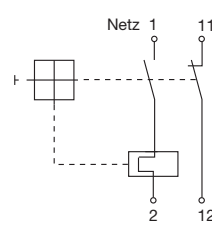


Schaltbilder

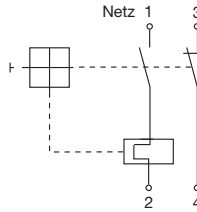
ohne Hilfskontakt



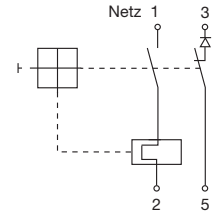
mit Hilfskontakt
VG 95345 T06



mit Hilfskontakt
EN 2995-004

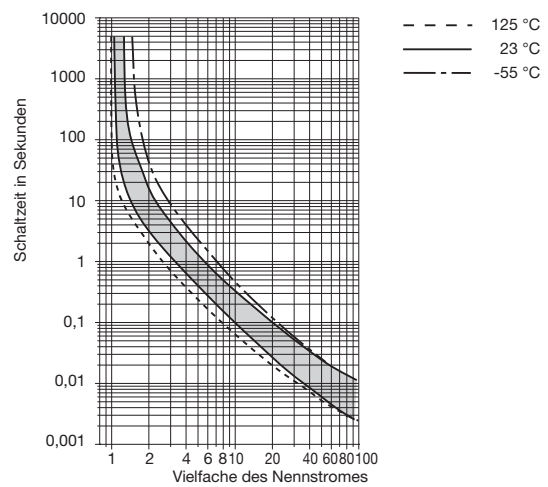


mit gepoltem Hilfskontakt
EN 2995-005



Zeit/Strom-Kennlinie

(Gesamtabschaltzeit bei Nennspannung)



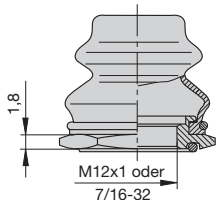
Zubehör

Schutzkappe mit Sechskantmutter und O-Ring (IP66 und IP67)
(zugelassen nach VG 95345, T23)

Best.-Nr. X 200 801 08 (Mutter vernickelt, Schutzkappe transparent)

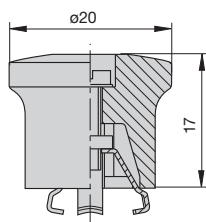
Best.-Nr. X 200 801 03 (Mutter geschwärzt, Schutzkappe schwarz)

Best.-Nr. X 200 801 09 (Mutter 7/16-32 geschwärzt,
Schutzkappe schwarz)



Aufsatzbetätigungsknopf (schwarz) zum Aufkleben auf
den Druckknopf (zugelassen nach VG 95345, T23)

Best.-Nr. X 200 803 01



Kennzeichnungsring zum Aufsnappen auf den Druckknopf

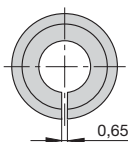
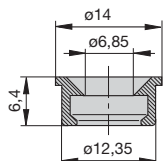
Best.-Nr. Y 307 004 01 schwarz

Y 307 004 02 weiß

Y 307 004 03 rot

Y 307 004 04 grün

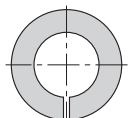
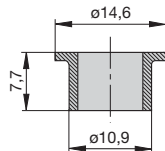
Y 307 004 05 blau



Sperrring zum Blockieren des Druckknopfes in AUS-Stellung

Best.-Nr. Y 307 005 01 rot

Best.-Nr. Y 307 005 02 schwarz



Die zur Verfügung gestellten Informationen sind nach unserem Wissen genau und zuverlässig, jedoch übernimmt E-T-A keine Verantwortung für den Einsatz in einer Anwendung, die nicht der vorliegenden Spezifikation entspricht. E-T-A behält sich das Recht vor, Spezifikationen im Sinne des technischen Fortschritts jederzeit zu ändern. Maßänderungen sind vorbehalten, bei Bedarf bitte neuestes Maßblatt mit Toleranzen anfordern. Maße, Daten, Abbildungen und Beschreibung entsprechen dem neuesten Stand bei Herausgabe dieses Kataloges, sind aber unverbindlich! Änderungen sowie auch Irrtümer und Druckfehler vorbehalten. Die Bestellbezeichnung der Geräte kann von deren Beschriftung abweichen.

Description

Single pole, miniaturised thermal circuit breaker with trip-free mechanism and push/pull on/off manual actuation (M-type TO CBE to EN 60934). Threadneck panel mounted, temperature-compensated, with optional auxiliary contacts. Fully approved for commercial aircraft and similar requirements.

Typical applications

Extra low voltage wiring systems on all types of vehicles for land, sea and air.

Ordering information

Type No.

4120 single pole, with temperature compensation

Mounting

G threadneck panel mounting

L threadneck panel mounting, extended push button

Threadneck design

1 M12x1x6.3 (aluminium)

2 7/16-32 UNx6.3 (aluminium)

Number of poles

1 1-pole, thermally protected

Hardware for threadneck

0 without hardware

1 hex nut M12x1, corrugated washer 12/15, fitted

2 hex nut M12x1 (aluminium), serrated lock washer 12.1/17.2, fitted

3 hex nut M12x1 (aluminium), serrated lock washer 12.1/17.2, bulk shipped

4 hex nut 7/16-32UN (aluminium), serrated lock washer 11.3/14.9, fitted

Terminal design (main terminals)

K1 screw terminals with metric thread K14 (M4)

J1 screw terminals with inch thread J14 (8-32UNC-2B)

J2 screw terminals with inch thread J17 (8-32UNC-2B)

J3 screw terminals with inch thread J25 (6-32UNC-2B)

P1 blade terminals 6.3x0.8, DIN 46244, silver-plated

Characteristic curve

M1 thermal, 1.15 - 1.38 I_N

Terminal screws

A Phillips screw M4x6, fitted

B Phillips screw 8-32UNC-2Ax6, fitted

C Phillips screw 6-32UNC-2Ax6 (MS 51957-26)

D slotted flat head screw M4x6, fitted

K hex screw with Phillips head 8-32UNC-3Ax7.6, fitted

M hex screw with Phillips head 8-32UNC-3Ax7.6, bulk shipped

Z without terminal hardware

Terminal washers

0 without lock washer

1 wave washer B4, fitted

2 lock washer 4.3, fitted

4 lock washer 3.7 (MS 35338-136)

5 lock washer 4.3/9, fitted

6 lock washer 4.3/9, bulk shipped

Auxiliary contact

S0 without auxiliary contact

S1 with auxiliary contact (connector EN 3155-016M2018) (NC)

S5 with polarized auxiliary contact (NC)

Barrier

Z without barrier

U with barrier (19.5 wide)

Colour of the push button

G green to EN (e. g. 2 1/2)

N black to EN (e. g. 2 1/2)

S black, with white marking (e. g. 2.5)

X black, without marking

Current ratings

1...25 A

4120 - G 1 1 1 - K1 M1 - A 1 S0 Z N - 10 A ordering example



4120-...

Technical data

Voltage rating	AC 115 V (400 Hz); DC 28 V	
Current rating range	1...25 A (0.5 A upon request)	
Auxiliary circuit	1 A, DC 28 V (0.5 A upon request)	
Typical life	20,000 operations mechanical, or 5,000 operations at 1 x I _N	
Ambient temperature	-55°C ...+125°C (-67...+257 °F)	
Insulation co-ordination (IEC 60664 and 60664A)	rated impulse withstand voltage	pollution degree
	1.5 kV	3
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 _{cn}	AC 115 V (400 Hz):	1...4 A 1,000 A
	DC 28 V:	5...25 A 2,000 A
		1...25 A 6,000 A
Degree of protection (IEC 60529/DIN 40050)	operating area IP40 terminal area IP00	
Vibration (sinusoidal)	10 g (57-2000 Hz), ± 0.76 mm (5-57 Hz) to ISO 7137, EN 2350 para. 5.3.1	
Vibration	1...2.5 A: 0.04 g ² /Hz ± 1.5 dB; 7.3 g eff 3...20 A: 0.06 g ² /Hz ± 1.5 dB; 9 g eff to ISO 7137, EN 2350 para. 5.3.1	
Acceleration	17 g, to ISO 2669, EN 2350 para. 5.3.3	
Shock	50 g (11 ms), to ISO 7137, EN 2350 para. 5.3.2	
Corrosion	48 hours at 5 % salt mist to ISO 7137, EN 2350 para. 5.4.2	
Humidity	240 hours at 95 % RH, to ISO 7137, EN 2350 para. 5.4.3	
Explosion	to VG 95210, sheet 10	
Altitude	≤ 22,000 m above sea level	
Mass	approx. 20.6 g with terminal screws, without -Si	
	approx. 24.6 g with terminal screws, with -Si	

Standard current ratings and typical volt drop values

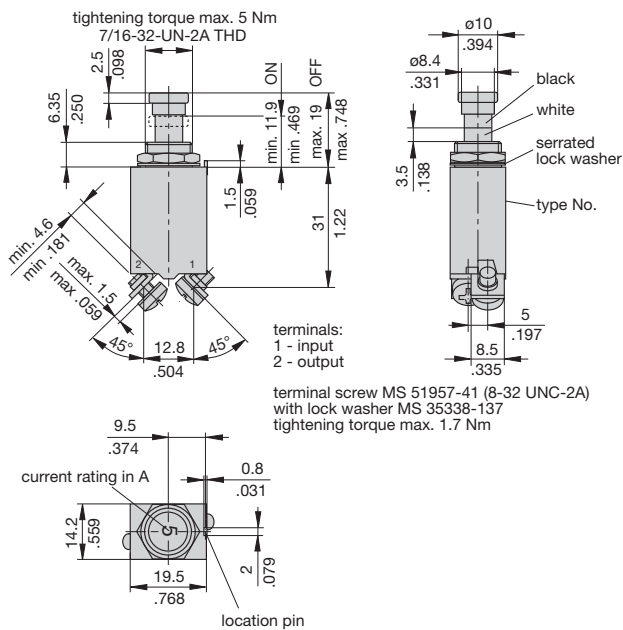
Current rating (A)	Volt drop (mV)	Current rating (A)	Volt drop (mV)
1	1100	7.5	250
2	550	10	230
2.5	460	15	200
3	440	20	190
4	380	25	190
5	260		

Approvals (configurations)

Authority	Voltage ratings	Current ratings
EN 2495		
EN 3773		
EN 2995		
MS 3320		
QPL		
VG 95345 T06	DC 28 V; AC 115 V	0.5...20 A
BWB (to VG 95345, part 6)		
UL 1077	DC 50 V	0.5...25 A

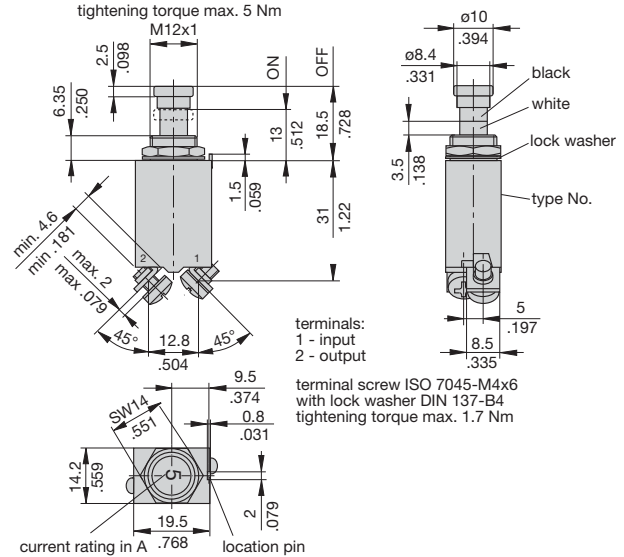
Dimensions 4120-...

4120-G214-J1M1-B2S0ZN (MS 3320)

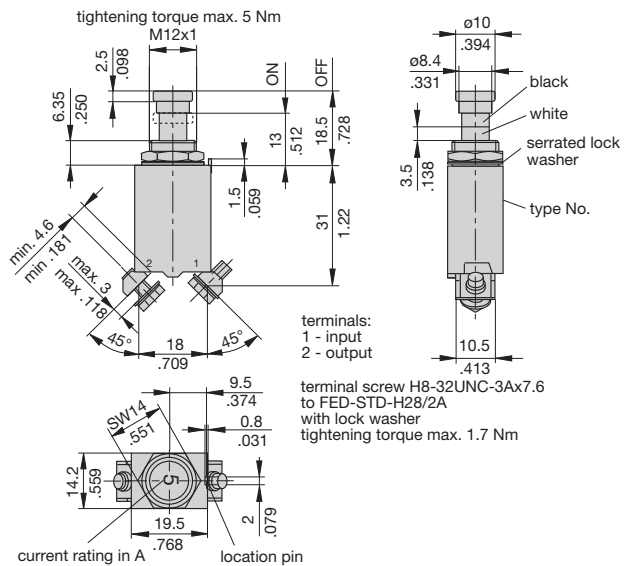


Dimensions 4120-G1..

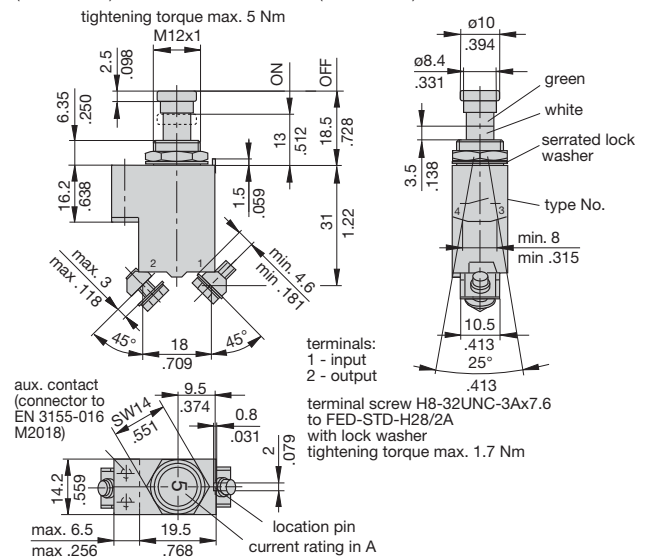
4120-G111-K1M1-A1S0ZN (EN2495-...M) (VG95345 T06)



4120-G11-J2M1-K5S0ZN (EN2495-...U, EN3773-004 D...)



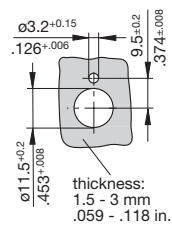
4120-G112-J2M1-K5S1ZG - 4120-G112-J2M1-K5S5ZG (EN2995-004) (EN2995-005)



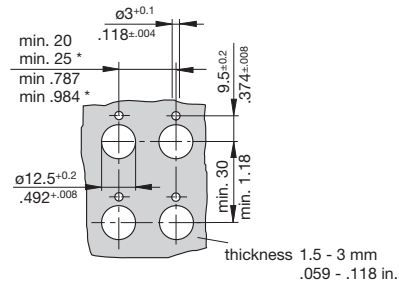
This is a metric design and millimeter dimensions take precedence (mm/inch)

Mounting holes

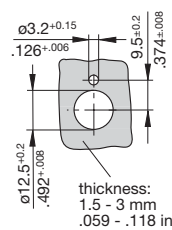
4120-G2...



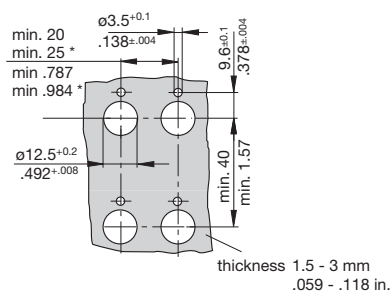
mounting holes S0



4120-G1...

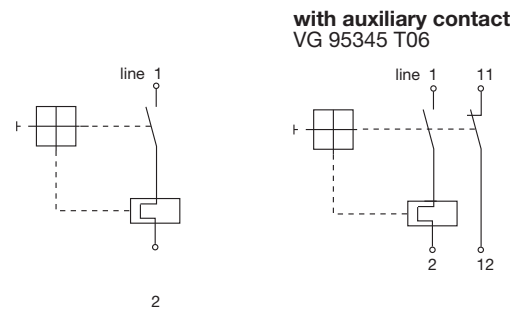


mounting holes S1 or S5

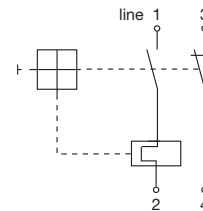


* min. 25 mm / .984 in. when fitted with splash cover

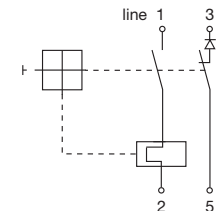
Internal connection diagram



with auxiliary contact EN 2995-004



with polarized auxiliary contact EN 2995-005

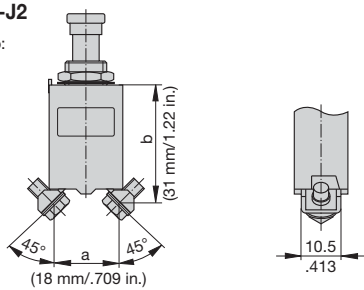


Other terminal designs

Terminal design -J2

Terminal distances to:

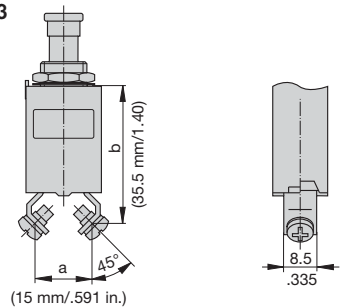
- MS 14 105 (a, b)
- MS 14 153 (a, b)
- MS 22 073 (a)
- MS 22 074 (a)
- MS 25 244 (a)
- MS 25 373 (a, b)



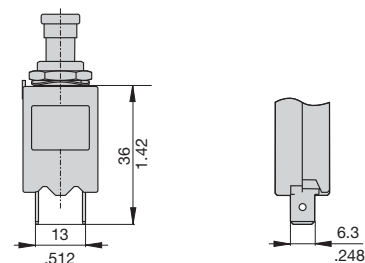
Terminal design -J3

Terminal distances to:

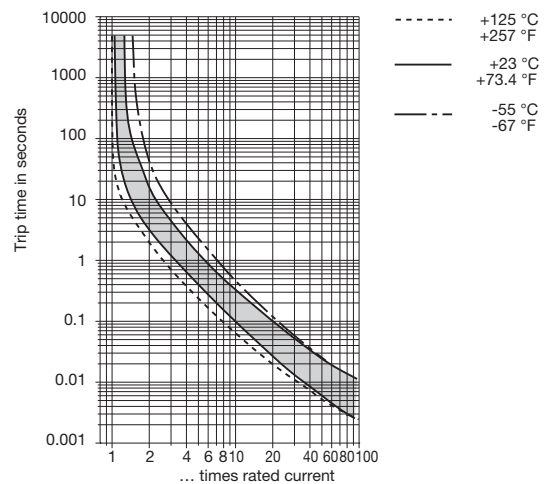
- MS 26 574 (a, b)



Terminal design -P1



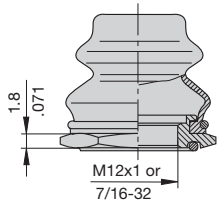
Typical time/current characteristics



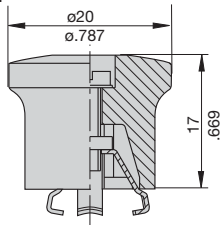
This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

Accessories (approved to VG 95 345, part 23)

Splash cover/hex nut assembly with O ring (IP66 and IP67)
 X 200 801 08 nickel plated nut, transparent cover
 X 200 801 03 matt black finish nut, black cover
 X 200 801 09 matt black finish nut7/16-32, black cover



Actuator extension (black) to be fitted on the push button
 X 200 803 01

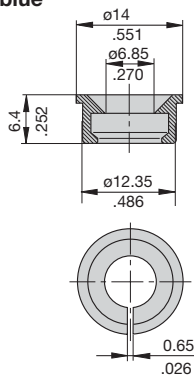


4

Accessories

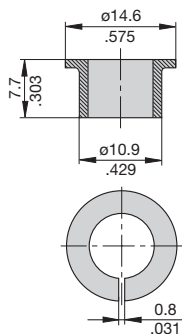
Identification collar to be snapped on the push button

Y 307 004 01 black
 Y 307 004 02 white
 Y 307 004 03 red
 Y 307 004 04 green
 Y 307 004 05 blue



Lock out ring to block the push button in OFF position

Y 307 005 01 red
 Y 307 005 02 black



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

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.