

Description

Single pole, thermal circuit breaker with trip-free mechanism, push/pull on/off manual actuation (M-type TO CBE to EN 60934) and temperature compensation. An indicator band on the push button clearly shows the tripped/off position. Threadneck panel mounted, available in metric and US configurations. The robust design makes type 4140 suitable for extremely harsh conditions.

Typical applications

Land vehicles, aircraft, watercraft, special vehicles.

Ordering information

Type No.	
4140	High performance thermal circuit breaker with temperature compensation
Mounting	
G	threadneck panel mounting
Threadneck design	
1	M12x0.75x7 alu, blackened, 1 location pin
3	7/16-32UNx7 alu, blackened, 1 location pin
Number of poles	
1	1-pole, protected
Hardware for threadneck	
0	without hardware
2	hex nut M12x0.75, alu, serrated lock-washer 12.1/17.2, fitted
3	hex nut M12x0.75, alu, serrated lock-washer 12.1/17.2, supplied separately
4	hex nut 7/16-32UN, alu, toothed lock-washer 11.3/14.9, fitted
5	hex nut 7/16-32UN, alu, toothed lock-washer 11.3/14.9, supplied separately
Terminal design (main terminals)	
J1	screw terminals with inch thread (8-32UNC-2B)
Characteristic curve	
M1	thermal 1.1-1.45 x I _N
Terminal screws	
B	Phillips cylinder head screw 8-32UNC-2Ax6
K	hex screw with Phillips head 8-32UNC-3Ax7.6, fitted
M	hex screw with Phillips head 8-32UNC-3Ax7.6, supplied separately
Z	without accessories
Terminal washers	
0	without lock washer
5	lock washer 4.3/9 fitted
6	lock washer 4.3/9 supplied separately
Auxiliary contact	
S0	without auxiliary contact
S1	with aux. contact (N/C) (female contact for male contacts to EN3155-016M2018)
S5	as S1 but polarized
Barrier	
T	with barrier
Colour of the push button	
G	green
N	black
Current ratings	
	20...50 A
4140 - G 1 1 3 - J1 M1 - M 6 S5 T G - 20 A	ordering example



4140
without auxiliary contact with auxiliary contact

Technical data

Voltage rating	AC 115 V (400 Hz); DC 28 V	
Current rating range	20...50 A	
Auxiliary circuit	0.5 A, DC 28 V	
Typical life	5,000 operations mechanical and 2,500 operations at I _N	
Ambient temperature	-55...+125 °C (-67...+257 °F)	
Temperature compensation	-55...+90 °C (-67...+194 °F)	
Insulation co-ordination (IEC 60664)	rated impulse withstand voltage 1.5 kV	pollution degree 3
Dielectric strength	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): 1,500 A DC 28 V: 4,000 A	
Degree of protection (IEC 60529)	operating area IP40 terminal area IP00	
Vibration (sinusoidal)	± 0.76 mm (5-80 Hz) 10 g (80-500 Hz), 5 g (500-2000 Hz) to EN 2350 para 5.3.1 and ISO 7137	
Vibration (random)	0.04 g ² /Hz (40-500 Hz) 5.8 g rms (10-2000 Hz) to ISO 7137	
Acceleration	17 g, to EN 2350, para 5.3.3 and ISO 2669	
Shock	50 g (11 ms), to EN 2350 para 5.3.2 and ISO 7137	
Corrosion	48 hours at 5 % salt mist to EN 2350 para 5.4.2 and ISO 7137	
Humidity	48 hours at 95 % RH, to EN 2350 para 5.4.3 and ISO 7137	
Altitude	≤ 15,000 m above sea level	
Mass	ca. 57 g with accessories and without auxiliary contact ca. 60 g with accessories and with auxiliary contact	

Standard current ratings and typical volt drop values

Current rating (A)	Volt drop per pole (mV)
20	150
25	150
30	150
35	150
40	120
45	120
50	120

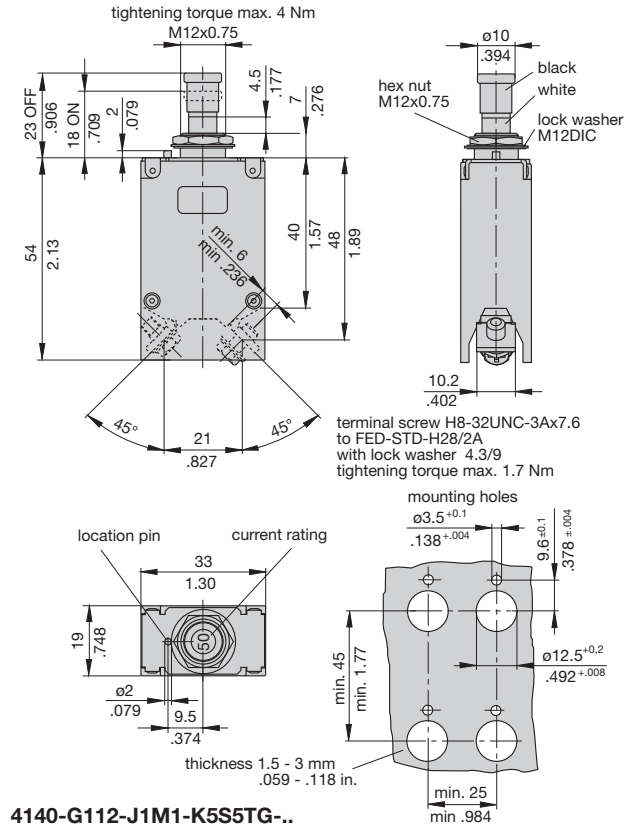
Approvals

ASNE 0732-005 / prEN 3661-005

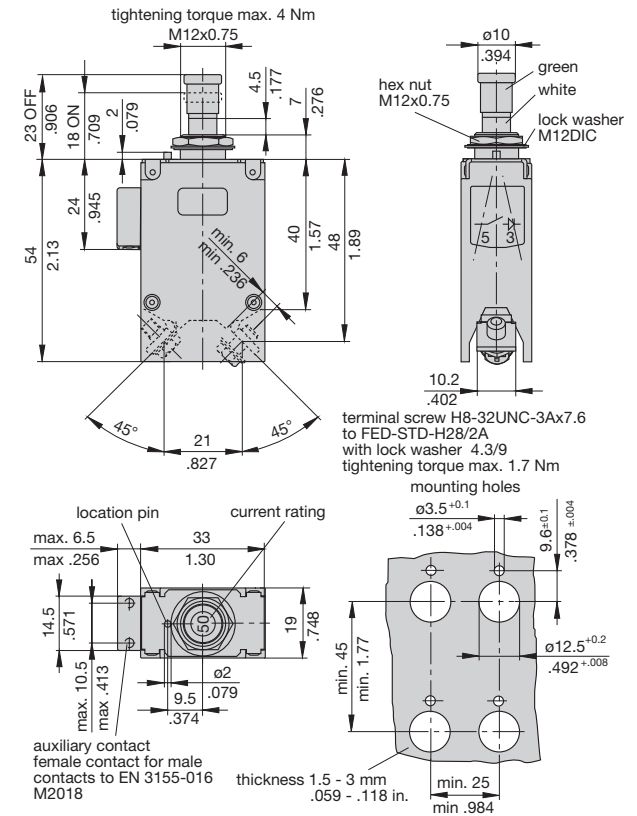
NSA 931321 / prEN2794-004

Dimensions

4140-G112-J1M1-K5S0TN-..

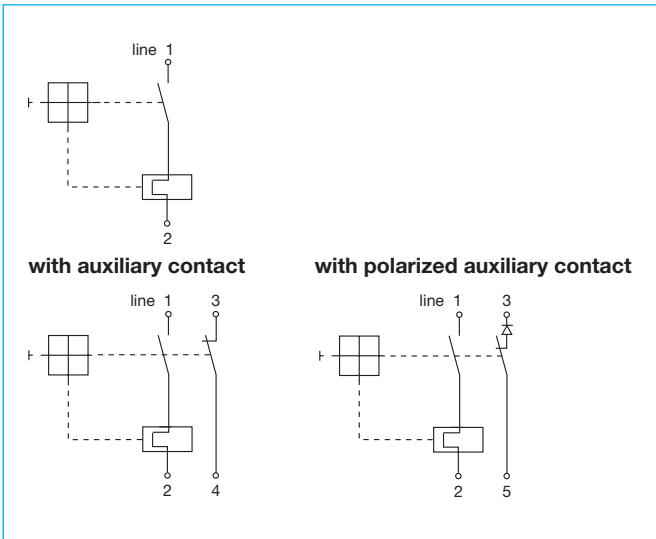


4140-G112-J1M1-K5S5TG-..

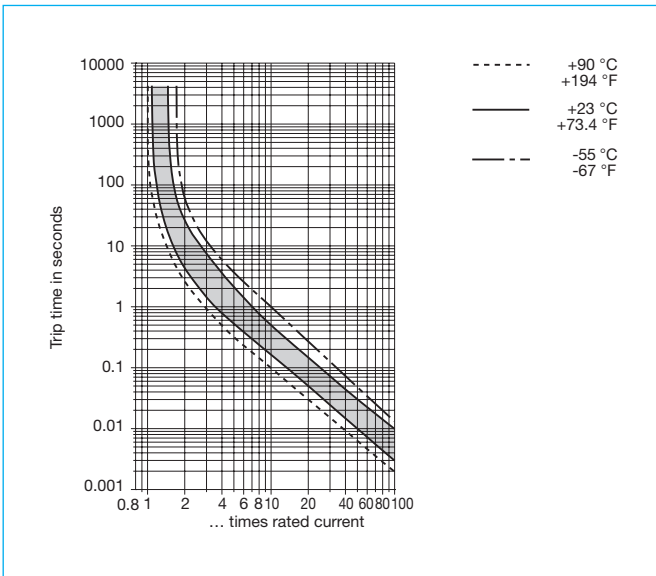


This is a metric design and millimeter dimensions take precedence ($\frac{\text{mm}}{\text{inch}}$)

Internal connection diagrams



Typical time/current characteristics



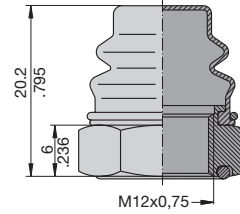
Accessories

Splash cover/hex nut assembly with O ring (IP66)

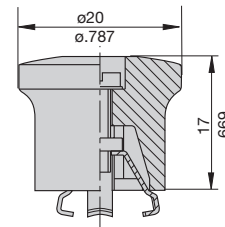
X 200 801 15 black chromated nut M12x0.75x6, black cover

Splash cover/hex nut assembly with O ring (IP66)

X 200 801 16 black chromated nut 7/16-32UNx6, black cover

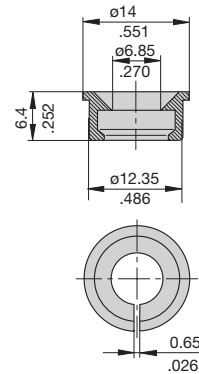


Actuator extension (black) to be fitted on the push button
X 200 803 01 (approved to VG 95345, part 23)



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



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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.