ATR Thermal Circuit Protector for Equipment

The ATR thermal circuit protector for equipment is a single pole, thermally operated overload protector with a snap-acting trip mechanism that provides reliable, trip-free operation on current overloads.

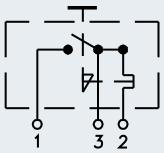
Approvals:

0.1 to 16A, 240Vac, 50Vdc

0.5 to 12A 240Vac, 24Vdc

RoHS Compliant

Warranty: 24 months from date of manufacture, as marked on unit



Specifications:

Current Ratings: 0.1A - 16A, Standard Ratings Available
Rated Voltage: 240 Vac, 50/60HZ, 50Vdc, 24Vdc (VDE)
Max. Breaking Capacity: 8x I_n for < 6A, 60A max. > 6A
Ambient Operating Temperature: -20°C to 60°C
Conditional Short Circuit Capacity: 1KA, PC1, 240Vac 24Vdc,
ref: EN60934, SC: 1KA, C1 240Vac 50Vdc,
ref: CSA22.2 No. 235.04, UL-1077
Tripping Current code (TC): TC2 ref: CSA22.2, No. 234-04
Insulation Resistance: >100 megohms (per EN60934)
Dielectric Strength: 1.5 KV for 1 min. (per EN60934)
Operational Life: 1000 Cycles @ 2 x I_n
Overload rating: OL0 240Vac, 50Vdc, ref: CSA22.2, No. 235-04
Overload Switching Capacity: 6x I_n AC Up to 9A, 4x I_n DC Up to 12A
60A Max. from 10A to 12A
Application type: General Industrial ref: CSA22.2, No. 235-04
Method of Tripping: Thermal "TO," trip-free
Type of Actuation: Reset type "R"

Application: Typical applications include power strips, single-phase motors, transformers, solenoids, UPS, etc.

Operation: The trip mechanism of the circuit protector is designed to open the contacts in the event of a current flow in excess of the rated current and in accordance with the time/current characteristics of the device. A bimetal strip deflects and releases the latch mechanism when heated by an overload. The strip has the advantage of being immune to high inrush currents and line transients. The contacts open and close with a positive snap action, and the tripped state is clearly indicated by the protruding reset button.

Shunt Terminal (Option N): Available on units of up to 6 amps equipped with a heater winding, an optional additional terminal can be provided as a parallel circuit to the main current-sensing circuit. The shunt circuit between terminals 1 and 3 may be used for any signal that may be required in addition to the main circuit. However, since the circuit makes use of the bimetal strip as a current-carrying path, the trip time of the circuit protector may be slightly influenced.

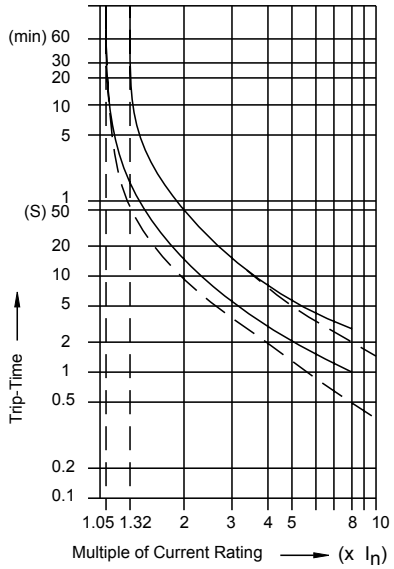
Time/Current Characteristics: The standard characteristic is valid for an ambient temperature of 23°C. However, if the device is to be used in an ambient temperature other than 23°C, an allowance must be made when selecting the current rating. See the following guidelines:

Example:
Normal Continuous Current:
1.8 A
Ambient Temp.:
40°C
Multiplication Factor:
1.12
Recommended Rating:
1.8 x 1.12 = 2.016
Select the Nearest Rating:
2 A

Ambient Temperature Correction Factor

Ambient Temp. (°C)	-20	-5	0	+10	+20	+30	+40	+50	+60
Multiplication Factor	0.8	0.88	0.9	0.96	1	1.05	1.12	1.2	1.3

Operating Characteristics:



ATR11 - C - X - 63 - R - 1 - A - 7.0A

1 First Decision

Type

ATR11	Single pole, series, thermal circuit protector

2 Second Decision

Mounting

C	Central hex nut
W	Wing clip
D	Wing clip
D1	Wing clip
S	Snap-in
B	Integral
P	PCB

3 Third Decision

Terminal Configuration

X	Series 1 & 2, ≤12A
Y	Series 2 & 3, >6A
N	Shunt 1, 2 & 3, ≤6A

4 Fourth Decision

Terminal

63	.250 Q.C.
48	.187 Q.C.
28	.110 Q.C.
10	.040 solder

5 Fifth Decision

Reset Button

R	Red
B	Black
W	White
RB	Red w/trip band
BB	Black w/trip band
WB	White w/trip band

6 Sixth Decision

Button Marking*

0	No Marking
1	Vertical
2	Horizontal

*D & D1 Mounting are supplied with -2 marking

7 Seventh Decision

Mounting Nut

N	None
A	Knurled Metal
B	Slotted Knurled Metal
C	Hex Metal
D	Knurled Sealing Boot

8 Eighth Decision

Standard Current Ratings*

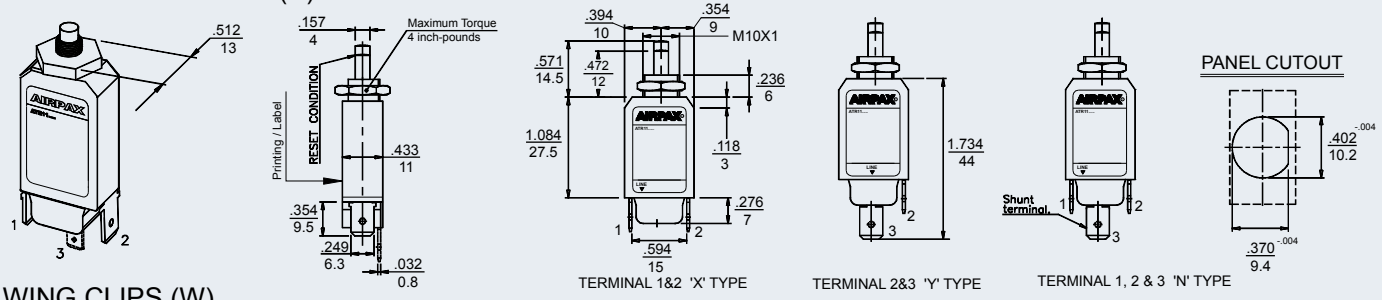
0.1, 0.25, 0.5, 0.8, 0.9, 1.0, 1.2, 1.5, 1.8, 2.0, 2.2, 2.5, 2.7,
3.0, 3.3, 4.0, 5.0, 6.0, 6.5, 7.0, 8.0, 9.0, 10.0, 12.0, 15.0, 16.0

*For other ratings, please consult the factory.

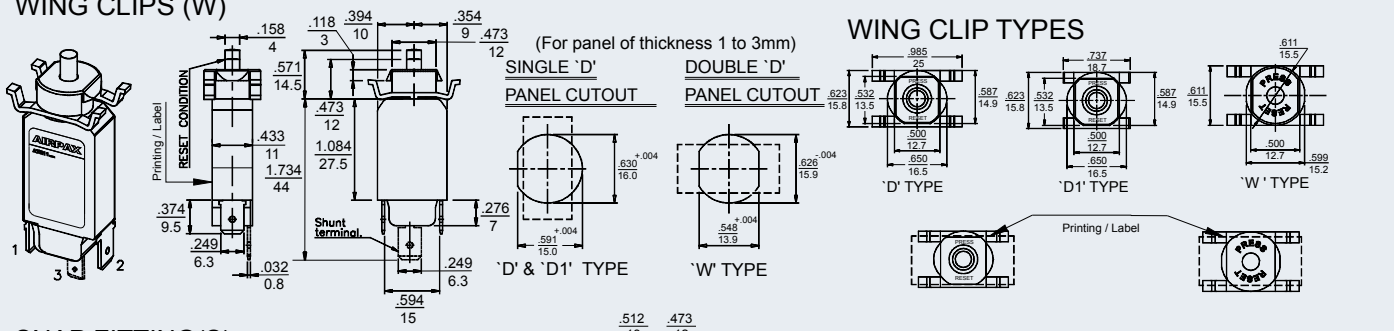
Mounting Options:

inch
mm

CENTRAL MOUNTING (C)

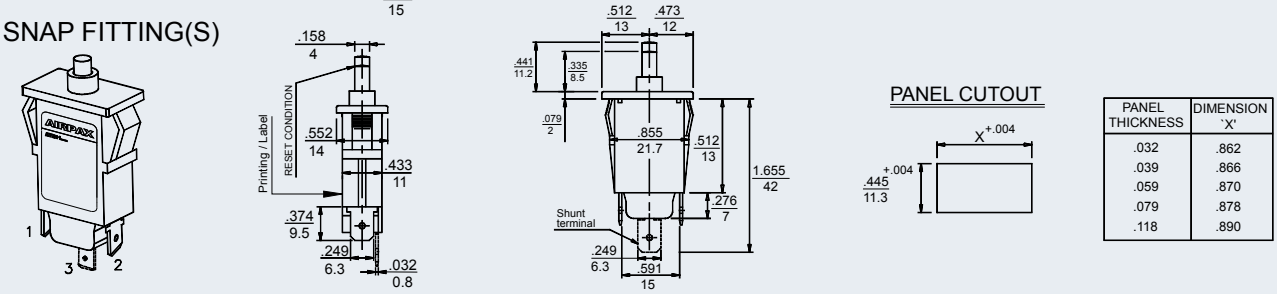


WING CLIPS (W)



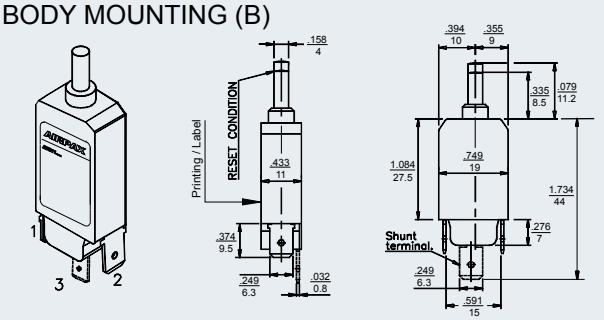
WING CLIP TYPES

SNAP FITTING(S)

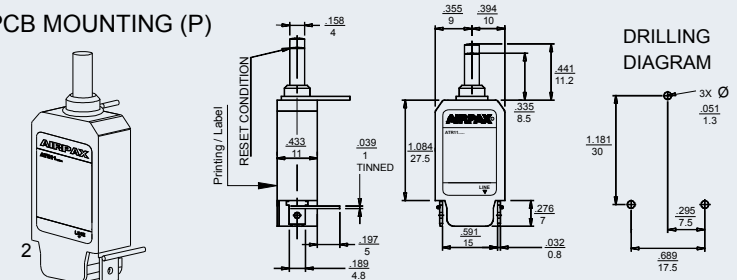


PANEL THICKNESS	DIMENSION `X'
.032	.862
.039	.866
.059	.870
.079	.878
.118	.890

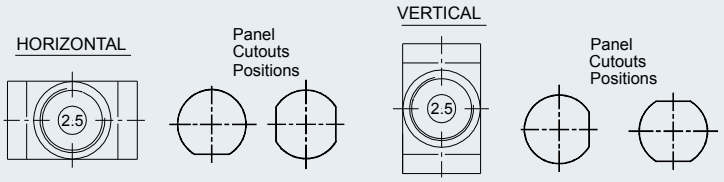
BODY MOUNTING (B)



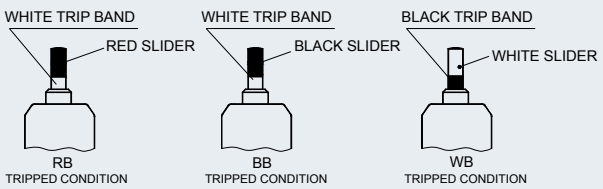
PCB MOUNTING (P)



BUTTON MARKING FOR CURRENT RATING

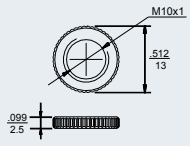


BUTTON COLOR WITH TRIP BAND

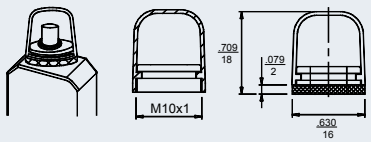


ACCESORIES

KNURLED NUT
P/N 053-000-0002



SEALING KNURLED BOOT
(Type C only, Dust & splash protection, IP 54)
P/N 053-000-0001



Notes:
Reverse wiring is not recommended.
Approximate weight (without nut): 10 grams