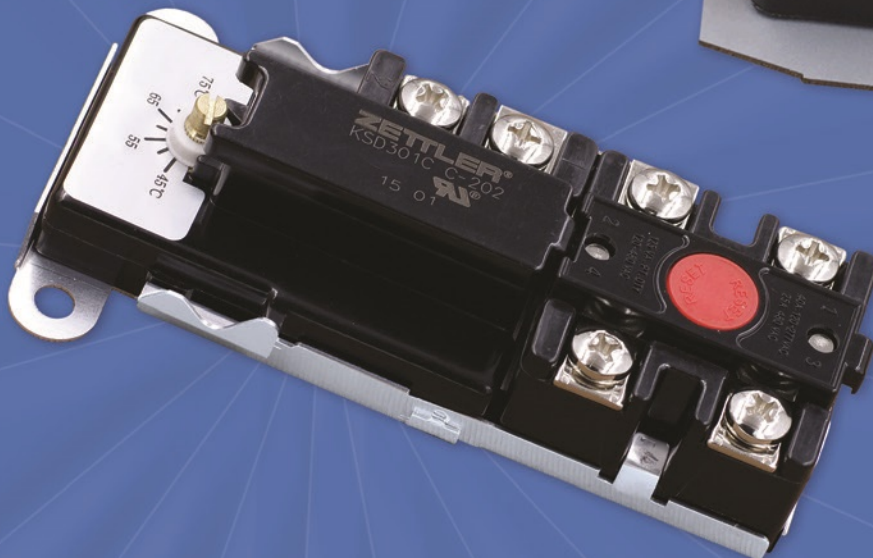
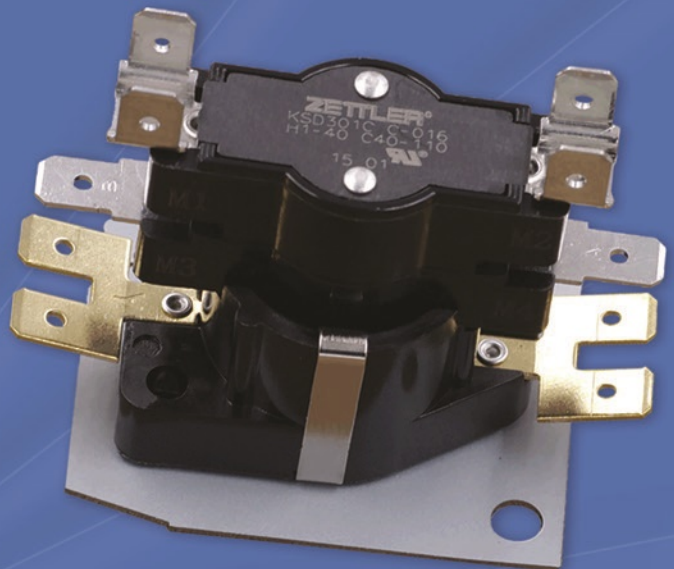
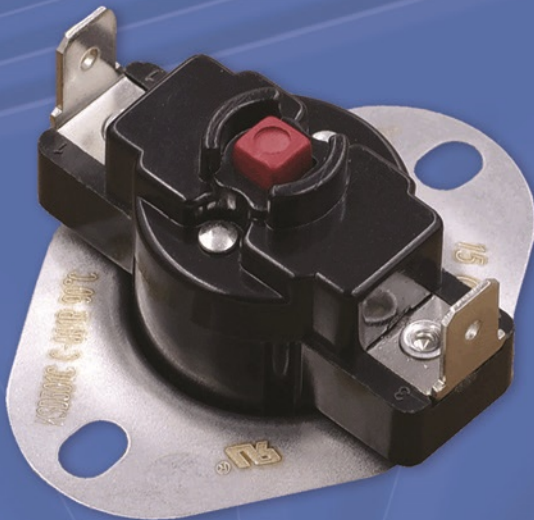


THERMOSTATS and TEMPERATURE CONTROLS



COMPANY INTRODUCTION

Through traditional craftsmanship and engineering excellence, the Zettler name has symbolized quality and reliability in relays for over 100 years in demanding applications such as telecommunication systems, computer peripherals, office automation equipment, home appliances, security systems, test and measurement devices and industrial controls.

Zettler brings that same commitment to the HVAC/R market with an offering of relays, transformers, fan center controls, heat sequencers, thermistors, and bi-metal thermostats. This group of products is used by the HVAC/R industry in both residential and commercial applications.

We welcome application challenges, stock over one million units, deliver quick turnaround and understand demanding service requirements. Our unique combination of 100% quality testing, first-class sales and technical support, cost-effective product design and outstanding product availability offer a highly dependable and responsive resource for fulfilling all your HVAC/R needs.



ZETTLER

CONTENT



KSD301A 1/2" (12.7mm) Series Snap-Action Temperature Controls____ P3



KSD301B Series Temperature Controls _____ P12



KSD301C 3/4" (19mm) Series Temperature Controls_____ P17



KSD301C Heat Sequencers - Time Delay _____ P23



KSD301C Series Temperature Sensing Controls _____ P26

Catalog Revision A

This catalog features our most popular thermostats and temperature controls. This is a small sampling of the many configurations and variations that we offer. We welcome the opportunity to discuss any requirements that you may have. Please send your inquiries to: sales@azettler.com

AMERICAN ZETTLER, INC.



KSD301A 1/2" (12.7mm) Series Snap-Action Temperature Controls

Similar to TOD Series 36T

Specifications

1. Electrical Ratings: AC120V 5A, 10A, 16A, AC250V 10A, 16A, 20A
2. OFF Temperature Range
 - a. Ceramic: $-0^{\circ}\text{C} \sim 250^{\circ}\text{C}$ ($-32^{\circ}\text{F} \sim 482^{\circ}\text{F}$)
 - b. Bakelite: $-30^{\circ}\text{C} \sim 150^{\circ}\text{C}$ ($-22^{\circ}\text{F} \sim 287^{\circ}\text{F}$)
3. Tolerance: Min $\pm 2^{\circ}\text{C}$ Standard $\pm 5^{\circ}\text{C}$
4. A variety of terminal, switch case and mounting configurations are available for maximum design flexibility
5. NOTE: Please contact us to discuss specific custom requirements

Applications:

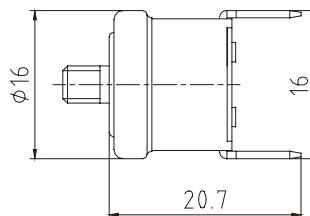
Boiler, Water Heater, Vacuum Cleaner, Copier, Electric Stove, Oven, Dryer, Refrigerator, Dish Washer, Air-Conditioning etc.

Approvals: UL CQC TUV VDE CUL CE

UL LZGH2/8 certified for use with A2L refrigerant versions available



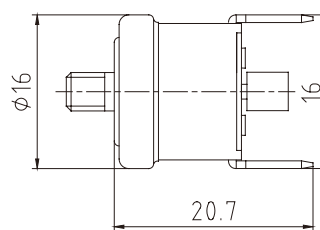
A013



Material:
Bakelite
Ceramic
PPS



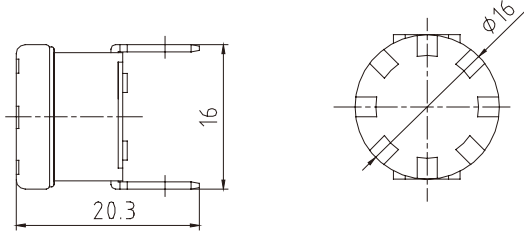
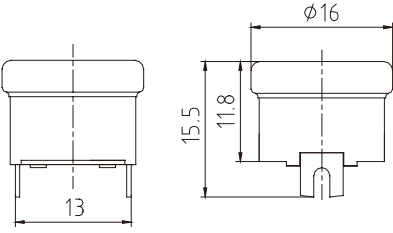
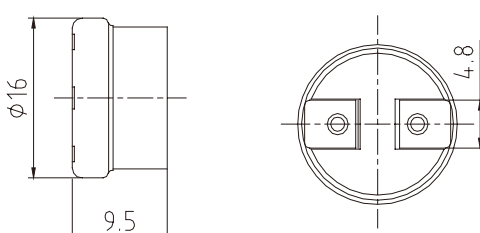
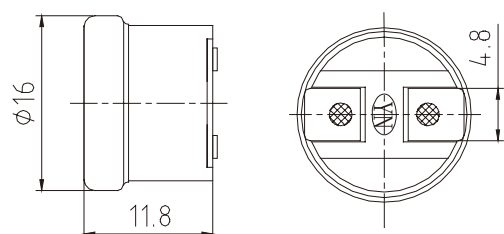
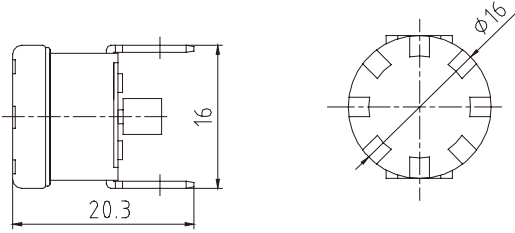
A013R



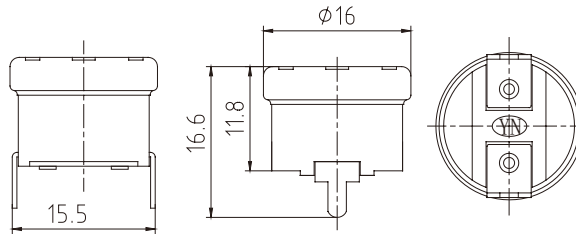
Material:
Bakelite
Ceramic

AMERICAN ZETTLER, INC.

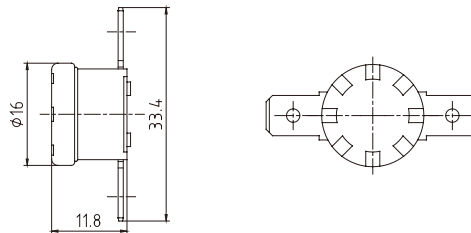


 A113	 Material: Bakelite Ceramic PPS
 A113B	 Material: Bakelite Ceramic PPS
 A113E	 Material: Bakelite
 A113F	 Material: Bakelite Ceramic PPS
 A113R	 Material: Bakelite Ceramic

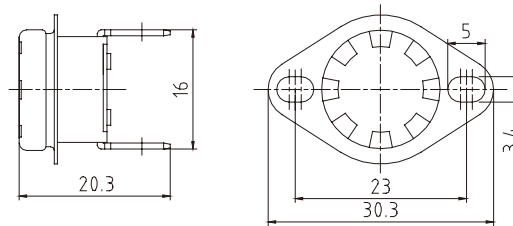
AMERICAN ZETTLER, INC.

**A113T**

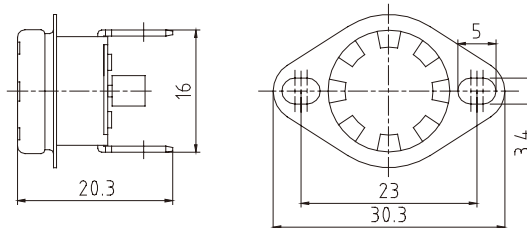
Material:
Bakelite
Ceramic
PPS

**A114**

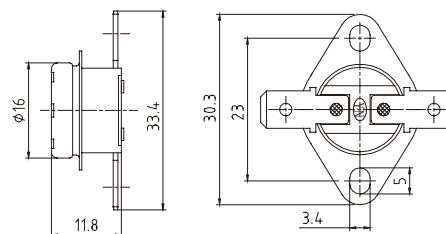
Material:
Bakelite
Ceramic
PPS

**A313**

Material:
Bakelite
Ceramic
PPS

**A313R**

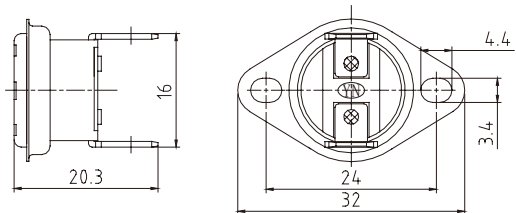
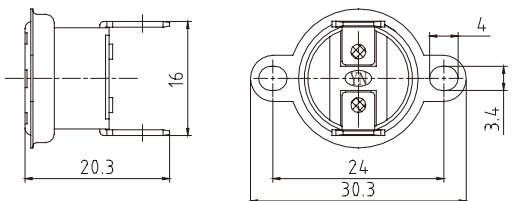
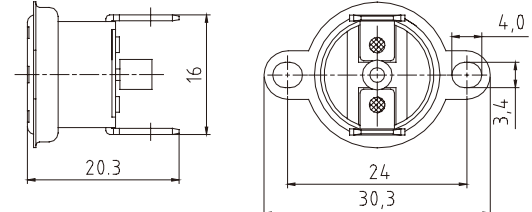
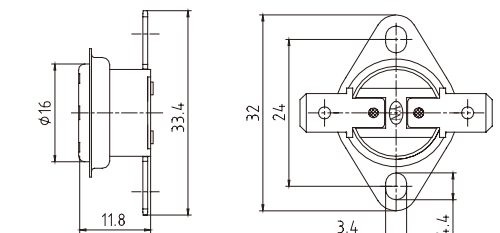
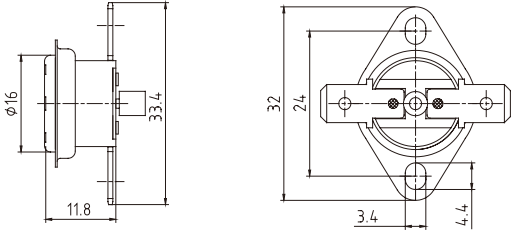
Material:
Bakelite
Ceramic

**A314**

Material:
Bakelite
Ceramic
PPS

AMERICAN ZETTLER, INC.

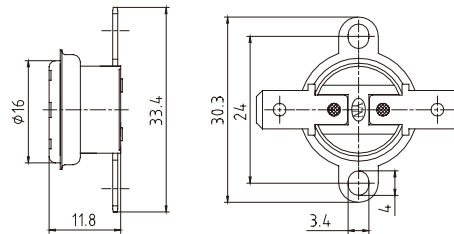


 A323	 Material: Bakelite Ceramic PPS
 A333	 Material: Bakelite Ceramic PPS
 A333R	 Material: Bakelite Ceramic
 A324	 Material: Bakelite Ceramic PPS
 A324R	 Material: Bakelite Ceramic

AMERICAN ZETTLER, INC.



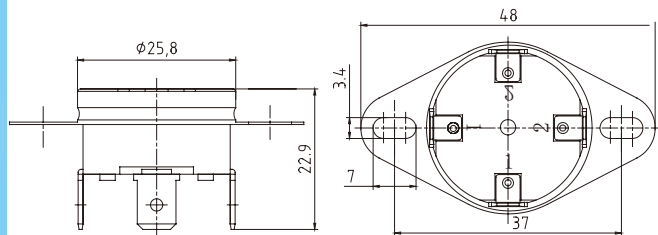
A334



Material:
Bakelite
Ceramic
PPS



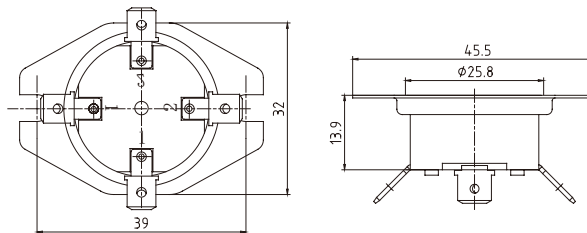
A443



Material:
Bakelite



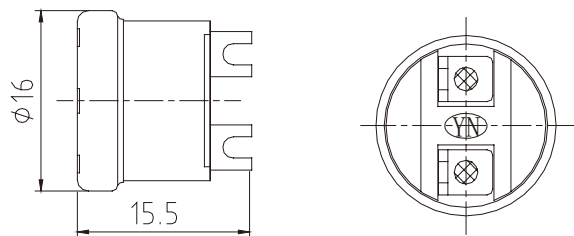
A443R



Material:
Bakelite



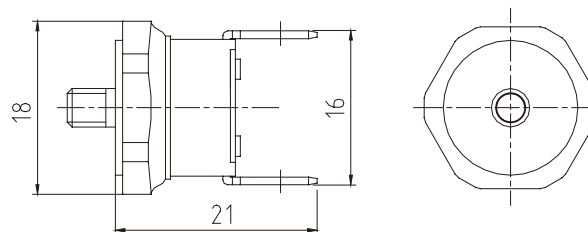
A617



Material:
Bakelite
Ceramic
PPS



A813

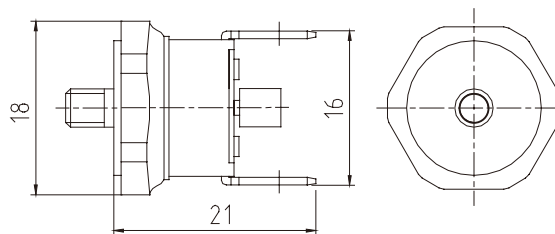


Material:
Bakelite
Ceramic
PPS

AMERICAN ZETTLER, INC.



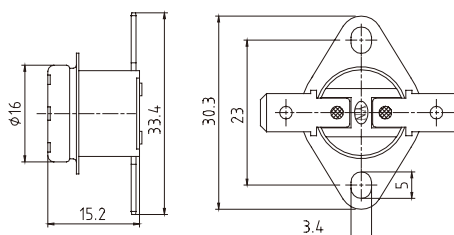
A813R



Material:
Bakelite
Ceramic
PPS



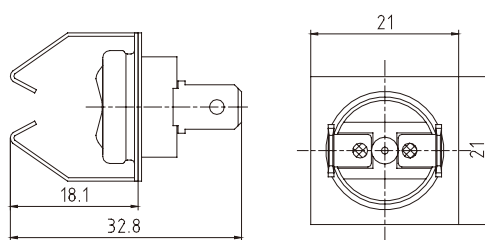
PTC



Material:
Bakelite



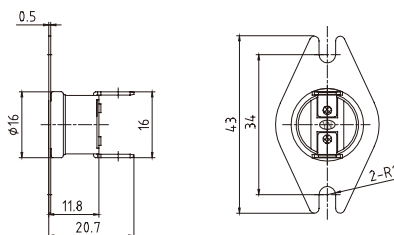
A2-002R



Material:
Bakelite
Ceramic



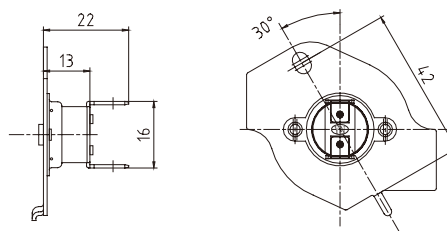
A2-003



Material:
Bakelite
Ceramic
PPS

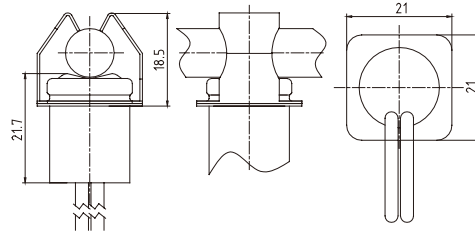


A2-007C

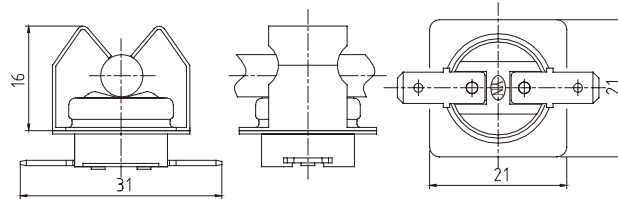


Material:
Bakelite
Ceramic

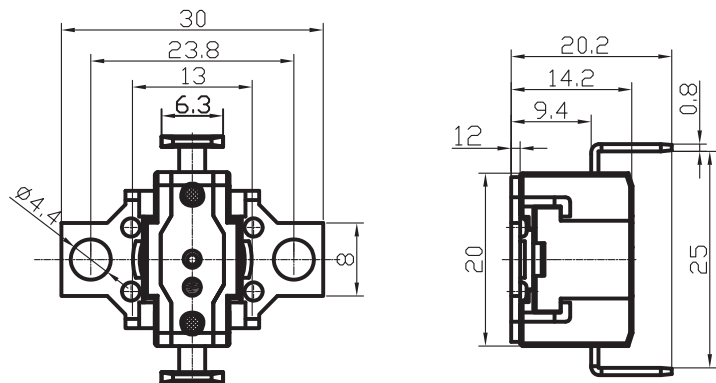
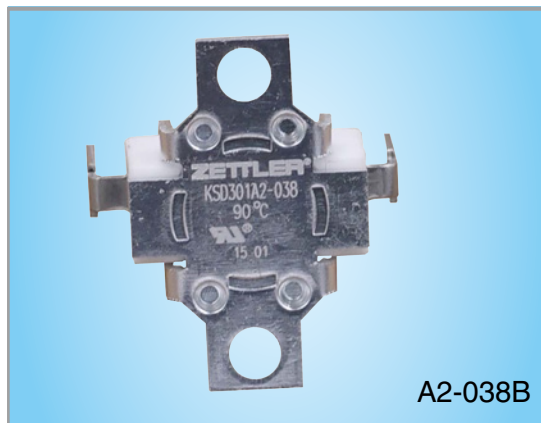
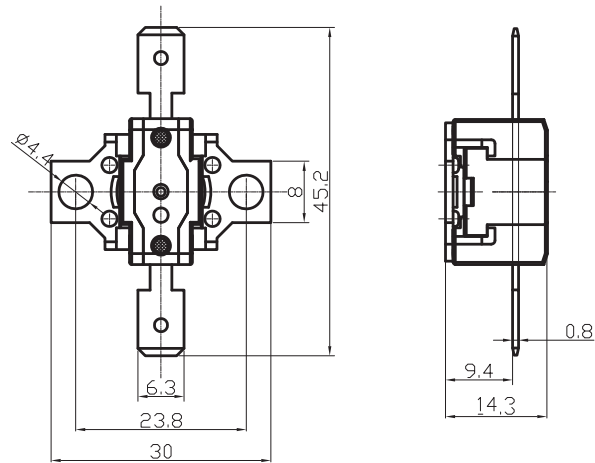
AMERICAN ZETTLER, INC.



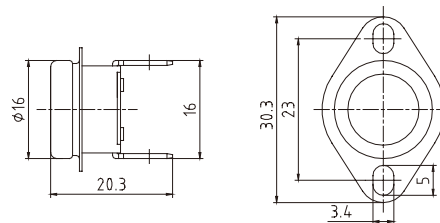
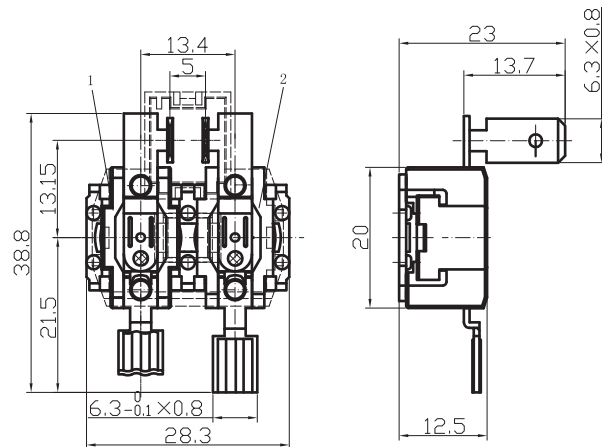
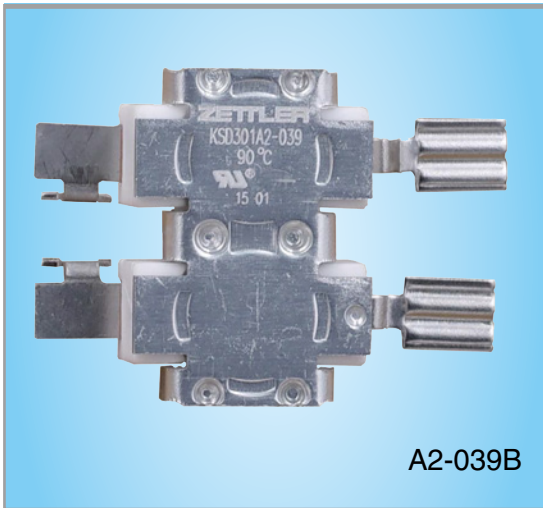
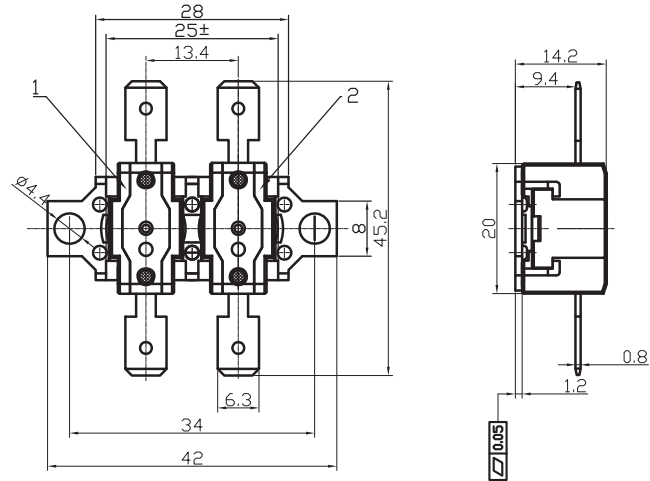
Material:
Bakelite
PPS



Material:
Bakelite
Ceramic
PPS



AMERICAN ZETTLER, INC.



Material:
Bakelite
Ceramic
PPS

AMERICAN ZETTLER, INC.



KSD301B Series Temperature Controls

Specifications

1. Electrical Ratings: AC120V/240V/277V 5A 15A, AC250V 10A 16A 25A
2. OFF Temperature Range -30°C ~ 105°C (-22°F ~ 221°F)
3. Diff Temp: Min 5°C ; Standard 15~25°C
4. Tolerance: Min $\pm 3^{\circ}\text{C}$ Standard $\pm 5^{\circ}\text{C}$
5. A variety of terminal, switch case and mounting configurations are available for maximum design flexibility
6. NOTE: Please contact us to discuss specific custom requirements

Applications:

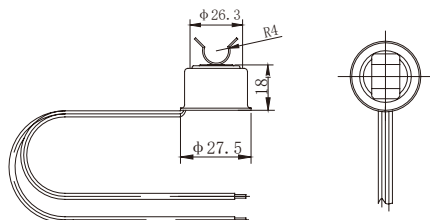
Refrigerator, Air-Conditioning, Ice maker, Freezer, etc.

Approvals: UL CQC TUV VDE CUL CE

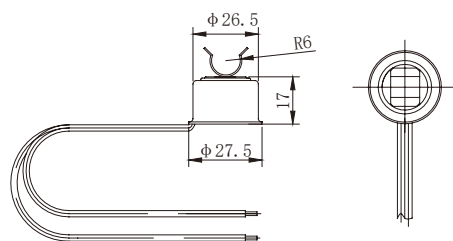
UL LZGH2/8 certified for use with A2L refrigerant versions available



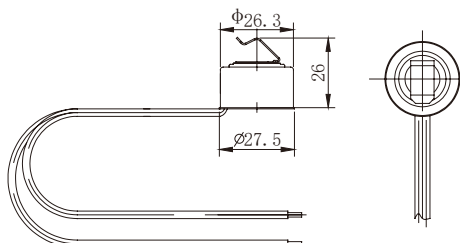
B-001



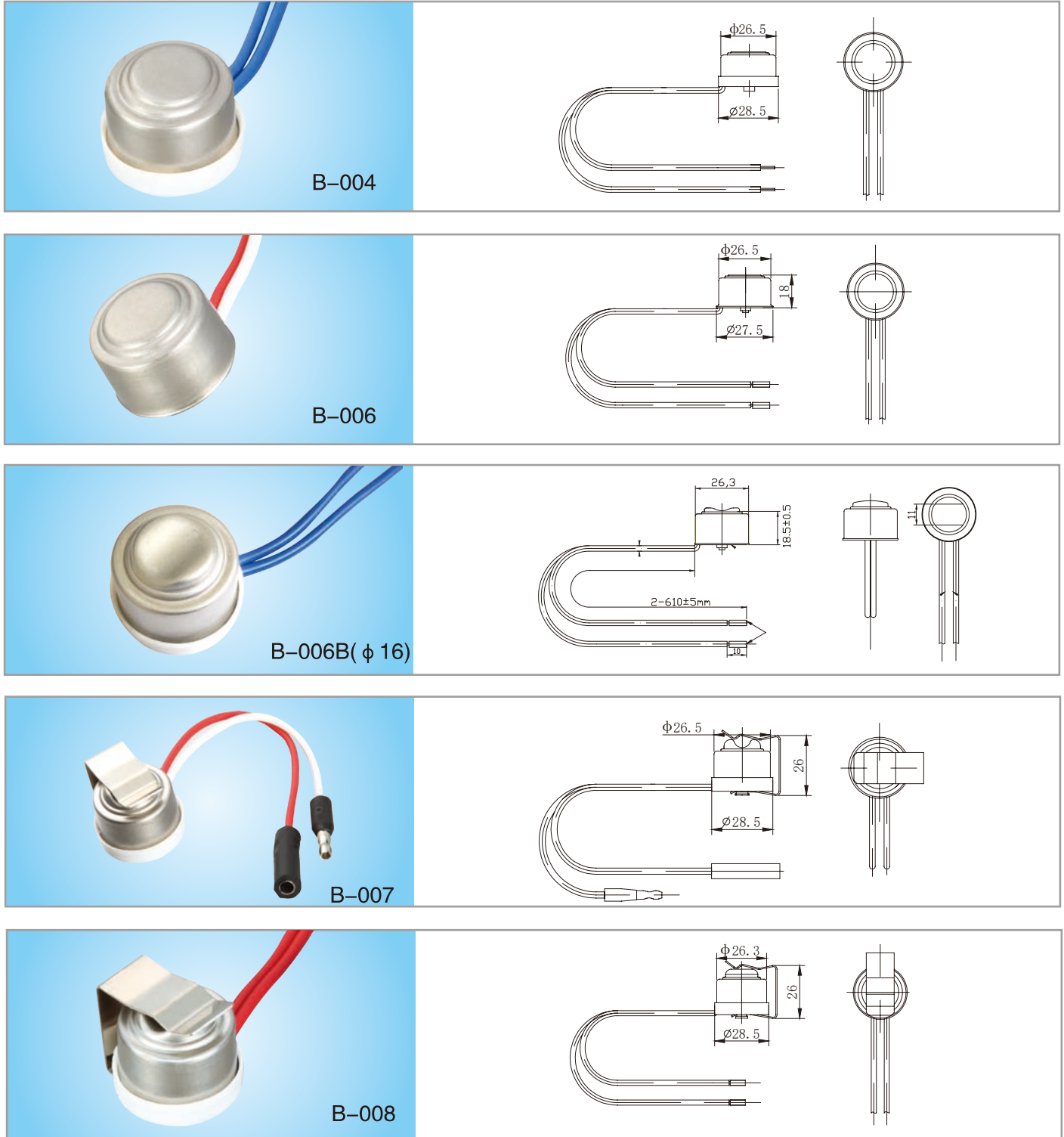
B-002



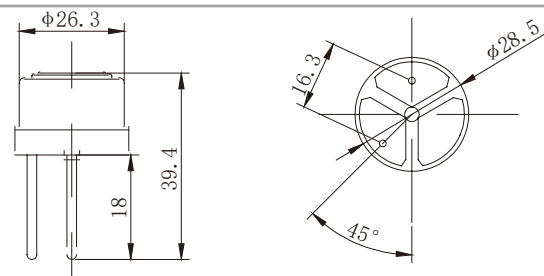
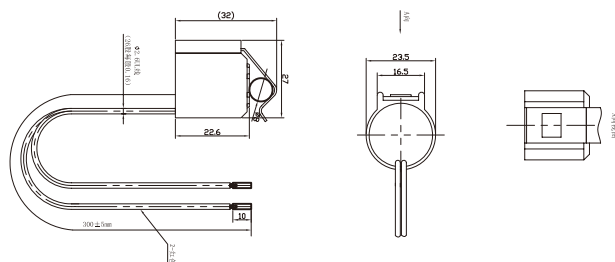
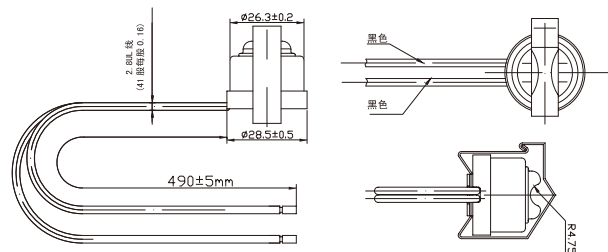
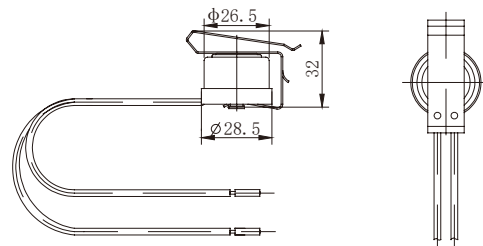
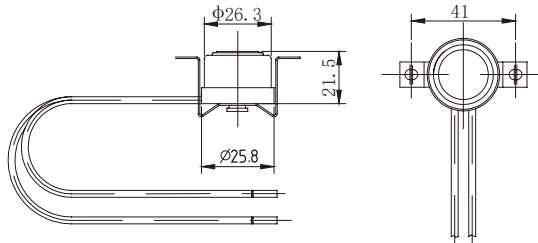
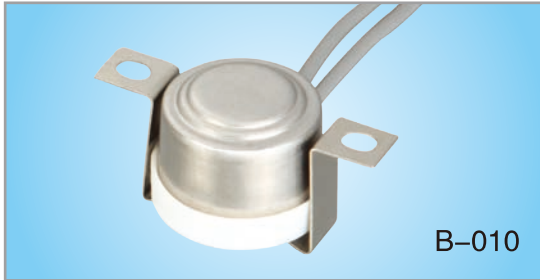
B-003A



AMERICAN ZETTLER, INC.



AMERICAN ZETTLER, INC.

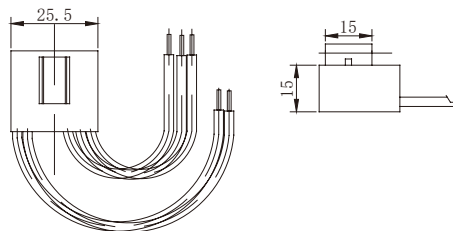


AMERICAN ZETTLER, INC.

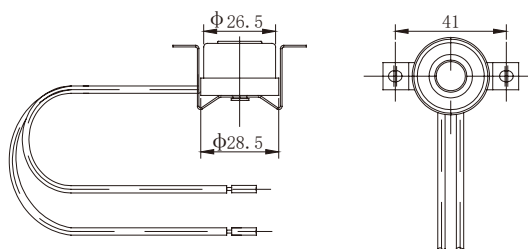
RoHS Reach

**KSD301B**

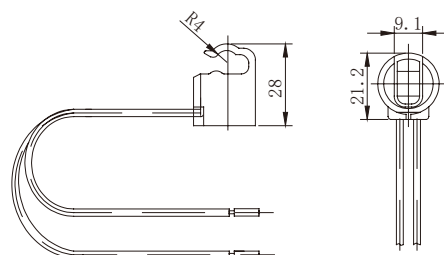
B-022



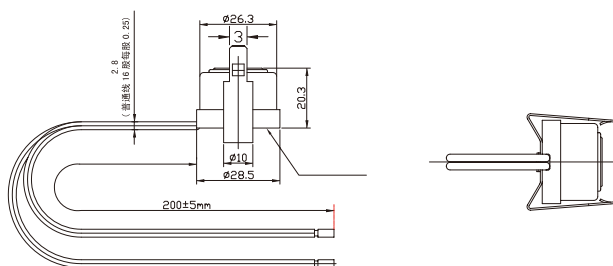
B-023



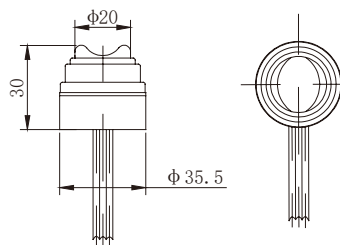
B-024



B-025

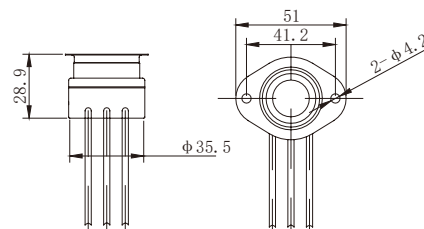


B-301

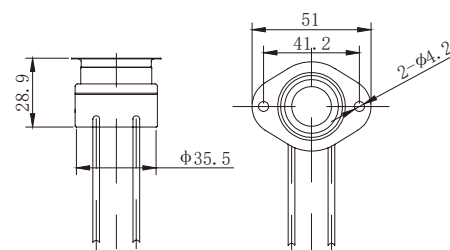
**AMERICAN ZETTLER, INC.**



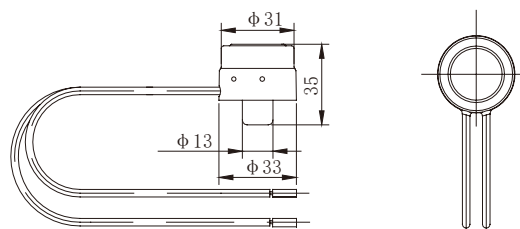
B-304



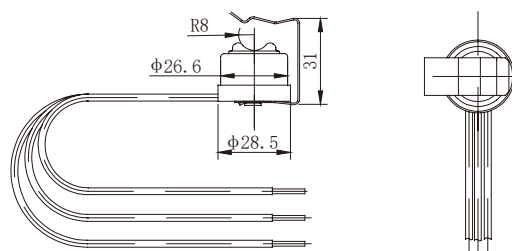
B-305



B-305R



B-307





KSD301C 3/4" (19mm) Series Temperature Controls

Specifications

1. Electrical Ratings: AC125V 5A 15A, AC250V 5A 10A 16A
2. OFF Temperature Range:
3. Bakelite: Automatic -30°C ~ 150°C; 30°C ~ 150°C
4. Tolerance: Automatic: Min $\pm 3^\circ\text{C}$ Standard $\pm 5^\circ\text{C}$, Manual: Min $\pm 4^\circ\text{C}$ Standard $\pm 5^\circ\text{C}$
5. A variety of mounting flanges are available to meet the insulation requirements.

Similar to TOD Series 60T

Applications:

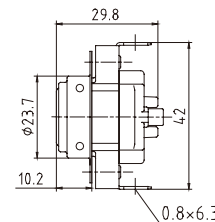
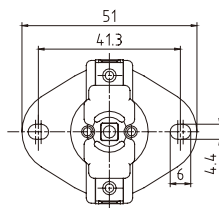
Air Conditioners, heating and ventilating equipment, vending machines, dryers, unit heaters, tabletop appliances, etc.

Approvals: UL CQC TUV VDE CUL

UL LZGH2/8 certified for use with A2L refrigerant versions available



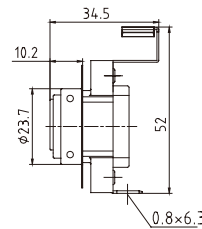
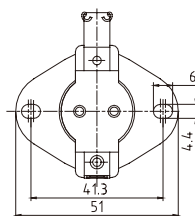
C-001R



Material:
a. Bakelite
Load:
250V / 25A
Switch Action:
SPST



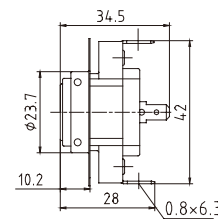
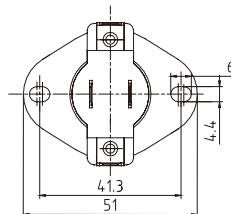
C-002



Material:
a. Bakelite
Load:
250V / 25A 600V / 15A
Switch Action:
SPST



C-003

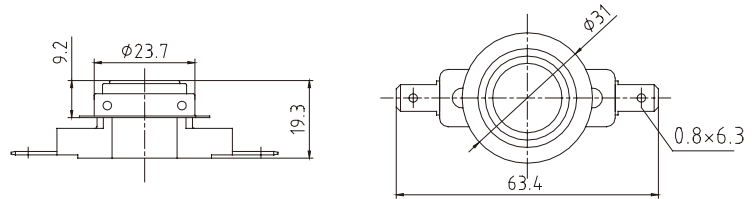


Material:
a. Bakelite
Load:
250V / 25A 600V / 15A
Switch Action:
SPST

AMERICAN ZETTLER, INC.



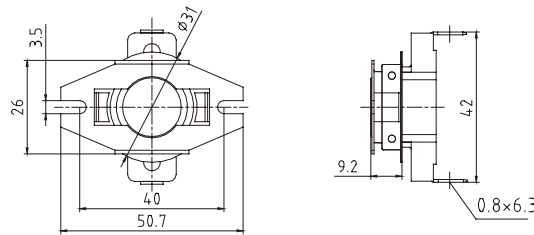
C-004



Material: a. Bakelite **Load:** 250V / 25A 600V / 15A **Switch Action:** SPST



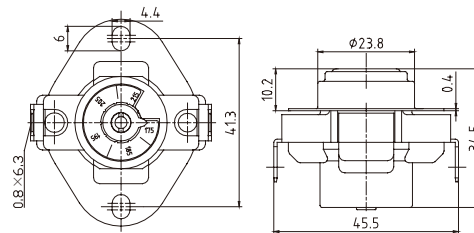
C-004A



Material:
a. Bakelite
Load:
250V / 25A
Switch Action:
SPST



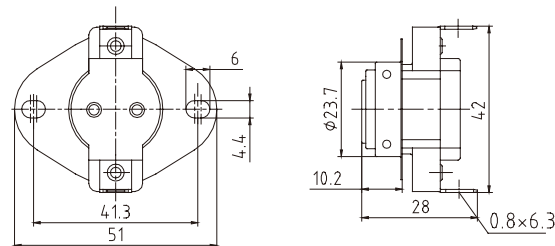
C-005



Material:
a. Bakelite
Load:
250V / 25A
Switch Action:
SPST



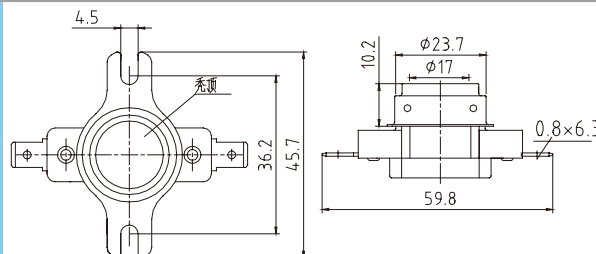
C-007



Material:
a. Bakelite
Load:
250V / 25A 600V / 15A
Switch Action:
SPST



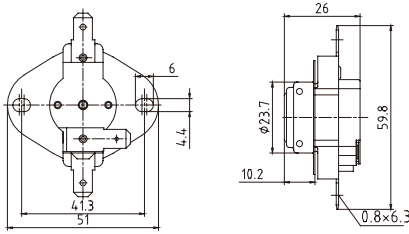
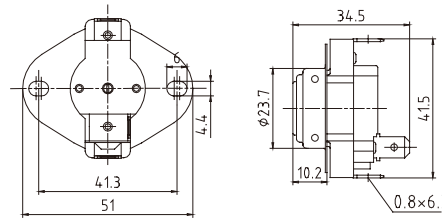
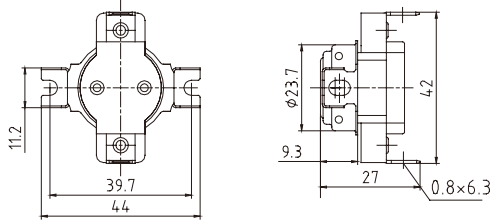
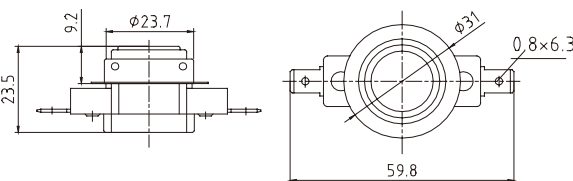
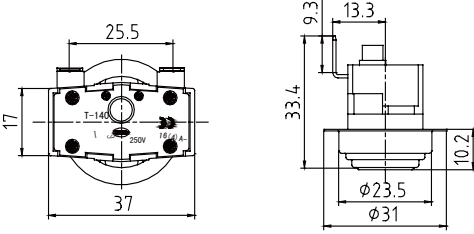
C-007S



Material:
a. Bakelite
Load:
250V / 25A 600V / 15A
Switch Action:
SPST

AMERICAN ZETTLER, INC.

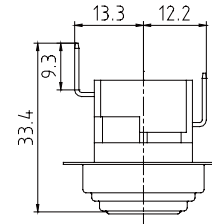
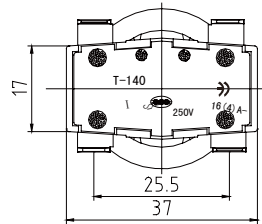


 C-008	 Material: a. Bakelite Load: 250V / 25A 600V / 15A Switch Action: SPDT
 C-008B C-008C	 Material: a. Bakelite Load: 250V / 25A 600V / 15A Switch Action: SPDT
 C-009 C-009B	 Material: a. Bakelite Load: 250V / 25A 600V / 15A Switch Action: SPST
 C-011	 Material: a. Bakelite, b. Ceramic Load: 250V / 25A 600V / 15A Switch Action: SPST
 C-013R C-013	 Material: a. Bakelite Load: 250V / 25A Switch Action: SPST

AMERICAN ZETTLER, INC.



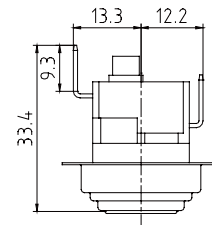
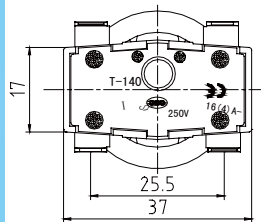
C-014(4Pin)



Material:
a. Bakelite
Load:
250V / 16A
Switch Action:
SPST DPST



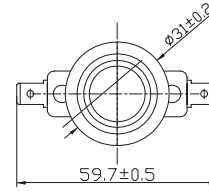
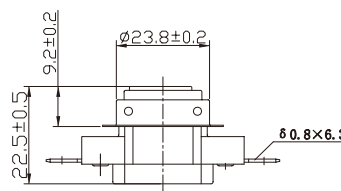
C-014R(4Pin)



Material:
a. Bakelite
Load:
250V / 16A
Switch Action:
SPST DPST



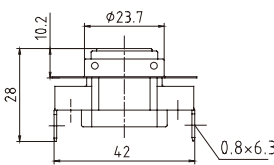
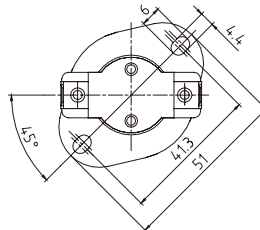
C-017



Material:
a. Bakelite b. Ceramic
Load:
250V / 25A 600V / 15A
Switch Action:
SPST



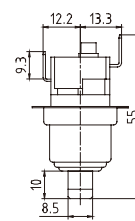
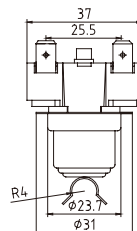
C-018



Material:
a. Bakelite b. Ceramic
Load:
250V / 25A 600V / 15A
Switch Action:
SPST

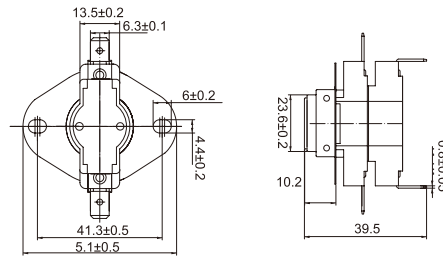


C-021R

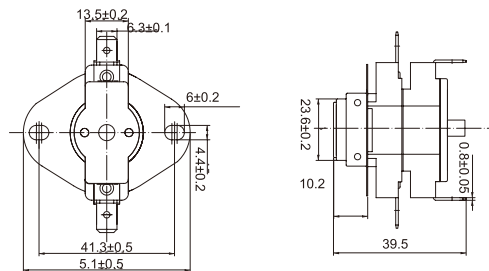


Material:
a. Bakelite
Load:
250V / 16A
Switch Action:
SPST DPST

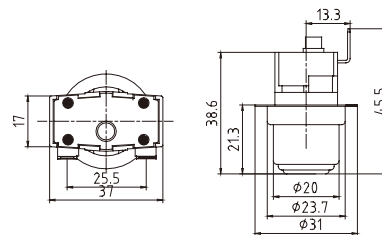
AMERICAN ZETTLER, INC.



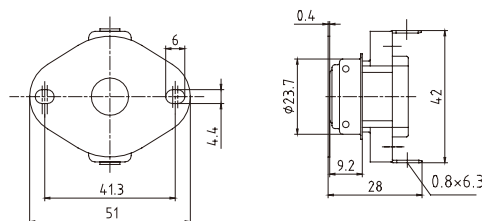
Material:
a. Bakelite
Load:
250V / 25A
Switch Action:
DPST 2SPST



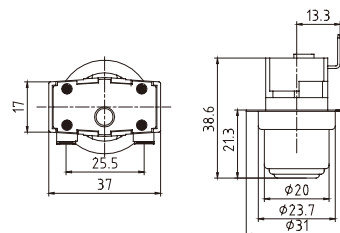
Material:
a. Bakelite
Load:
250V / 25A
Switch Action:
DPST 2SPST



Material:
a. Bakelite
Load:
250V / 16A
Switch Action:
SPST

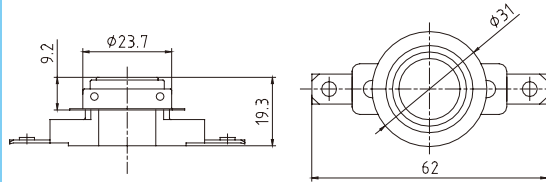


Material:
a. Bakelite b. Ceramic
Load:
250V / 25A 600V / 15A
Switch Action:
SPST

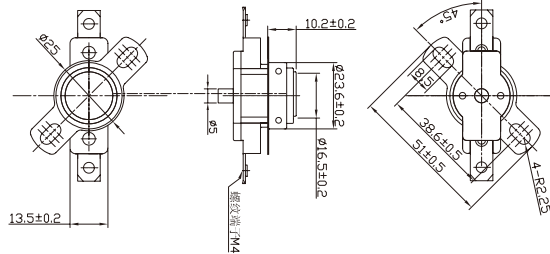
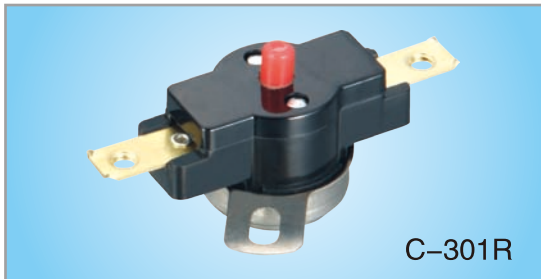


Material:
a. Bakelite
Load:
250V / 16A
Switch Action:
SPST
Terminal:
Nickell plated Brass

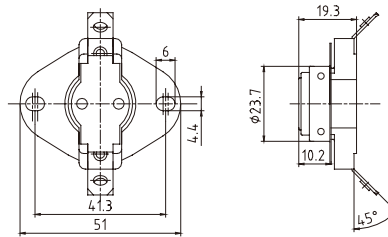
AMERICAN ZETTLER, INC.



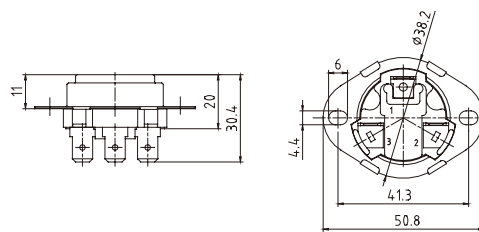
Material:
a. Bakelite
Load:
250V / 45A
Switch Action:
SPST



Material:
a. Bakelite
Load:
250V / 45A
Switch Action:
SPST



Material:
a. Bakelite
Load:
250V / 25A
Switch Action:
SPST



Material:
a. Bakelite
Load:
250V / 25A
Switch Action:
SPST

AMERICAN ZETTLER, INC.



KSD301C Heat Sequencers - Time Delays

Features

Controls the delayed operation of heating elements or fans in electric furnaces and heat pumps

Combines a solid-state positive temperature coefficient (PTC) heater, Option of single, double, or three independent timing contacts.

UL and CUL approval

Applications

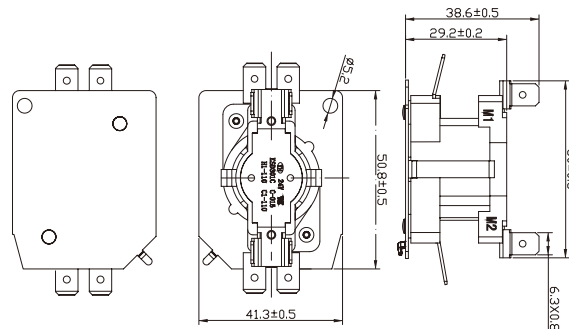
Electric Furnaces, Heat Pumps, Gas Furnaces, etc.

Approvals: UL CUL

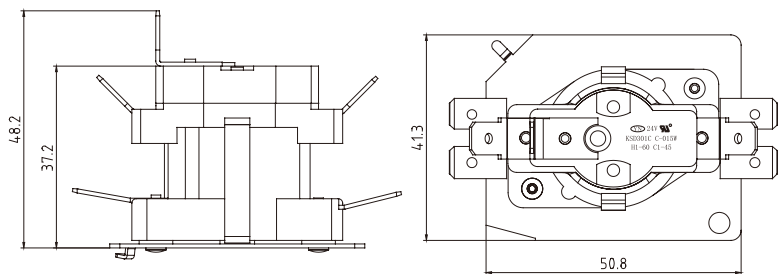
UL LZGH2/8 certified for use with A2L refrigerant versions available



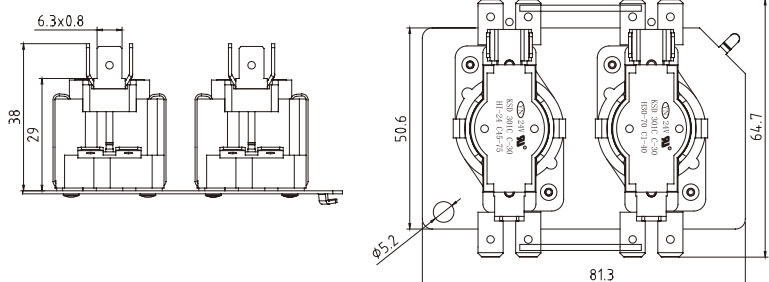
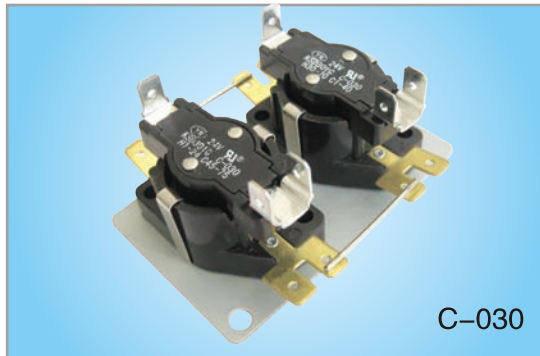
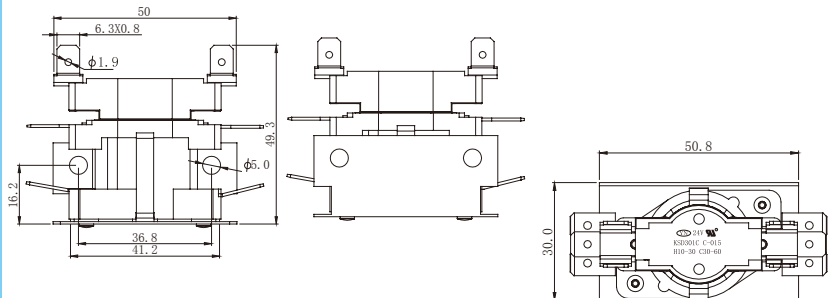
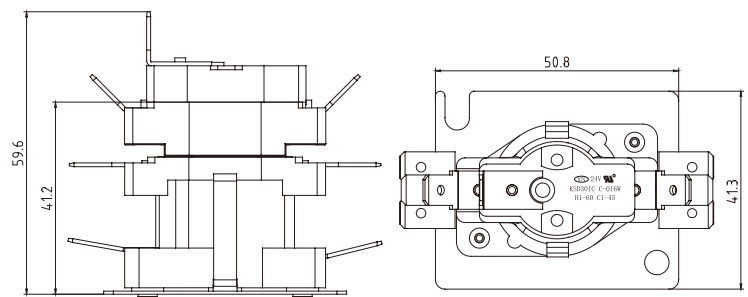
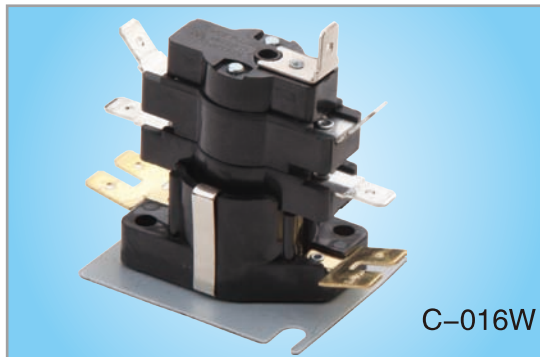
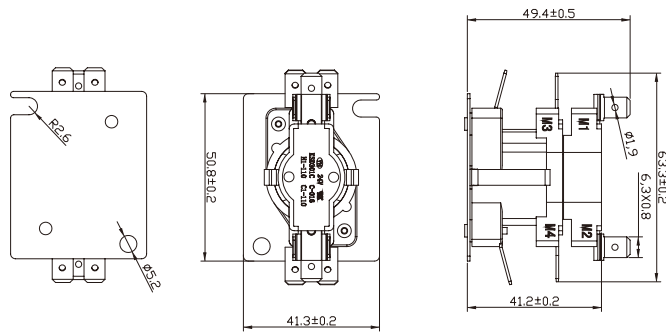
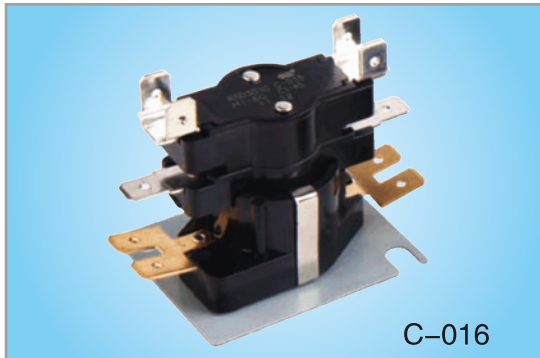
C-015



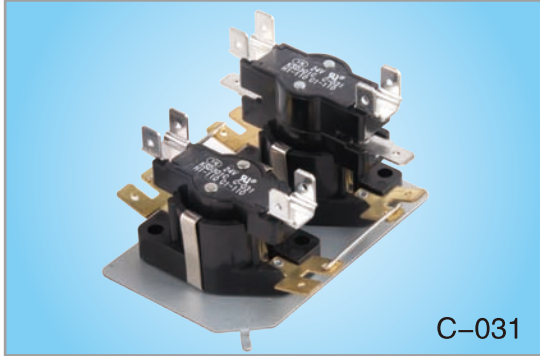
C-015W



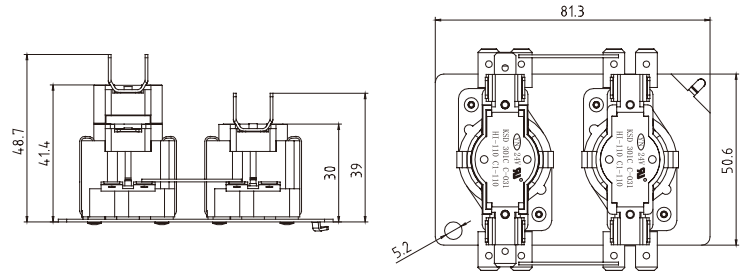
AMERICAN ZETTLER, INC.



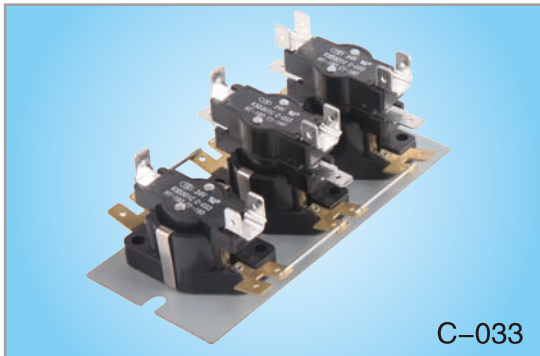
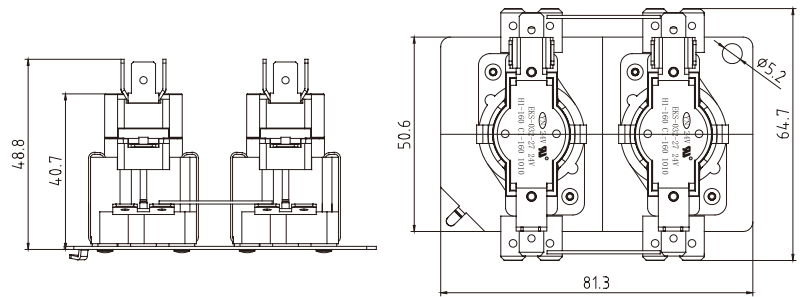
AMERICAN ZETTLER, INC.



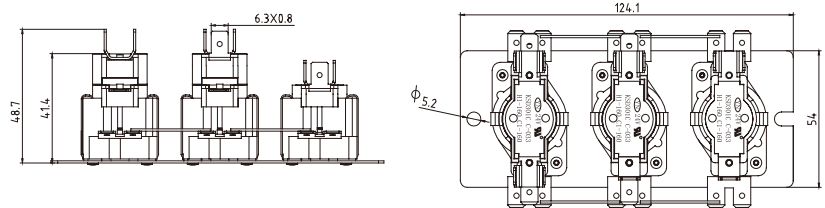
C-031



C-032



C-033



AMERICAN ZETTLER, INC.



KSD301C Series Temperature Sensing Controls

UNIVERSAL REPLACEMENTS FOR ELECTRIC
WATER HEATER THERMOSTATS

Panel Mount Temperature Sensing Controls

Features

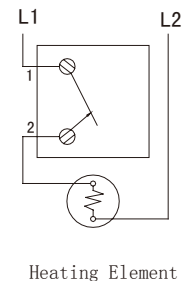
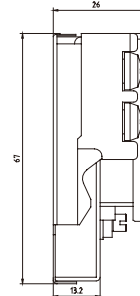
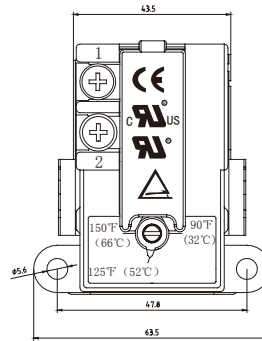
1. High Electrical capacity
2. Snap-Action cont
3. Long life-proven reliability
4. Adjustable control or manual reset style

Approval: UL TUV CUL CE

UL LZGH2/8 certified for use with A2L refrigerant versions available



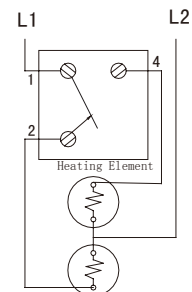
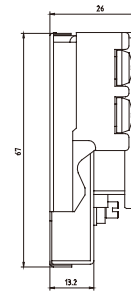
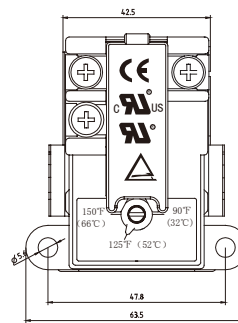
C-200



Heating Element



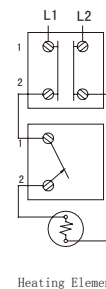
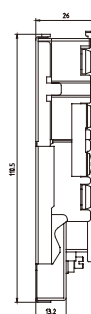
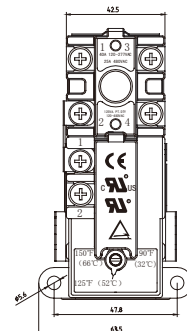
C-201



Heating Element

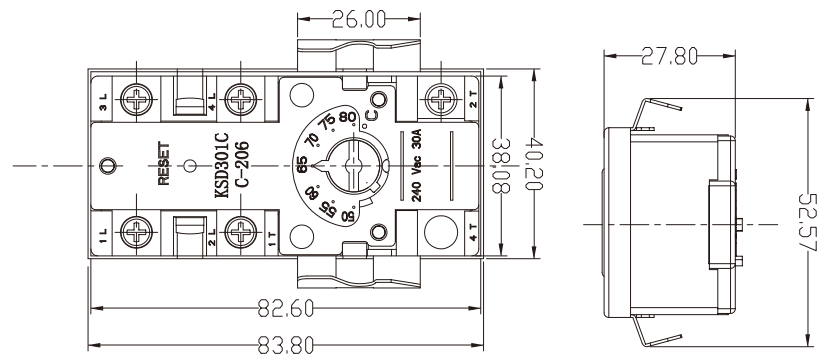
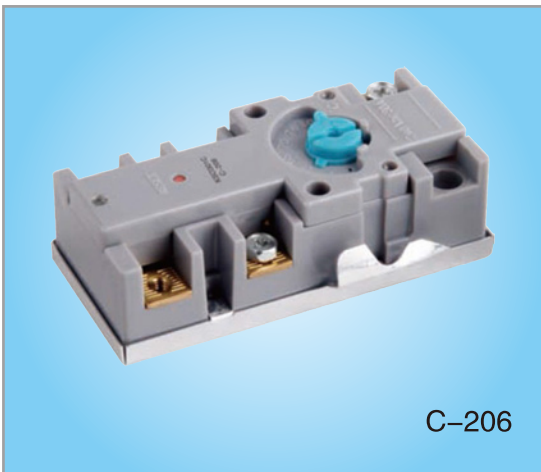
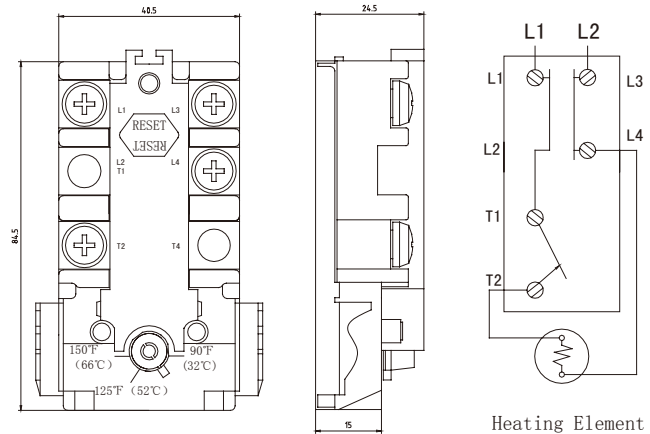
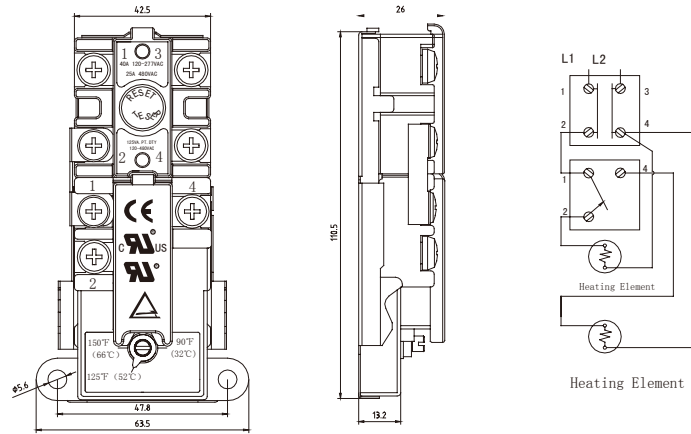
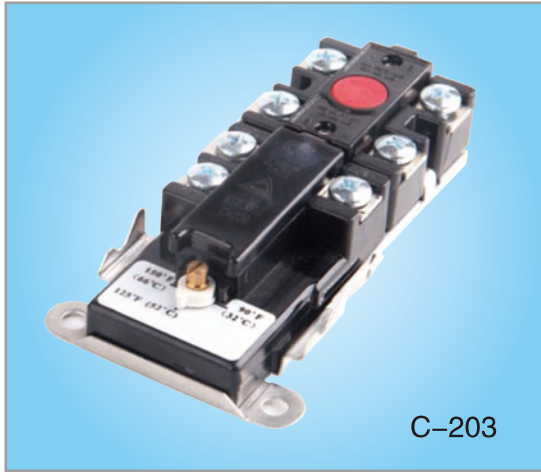


C-202



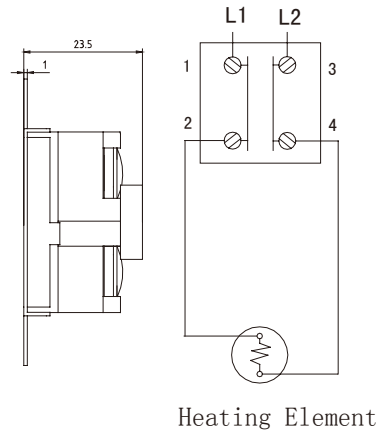
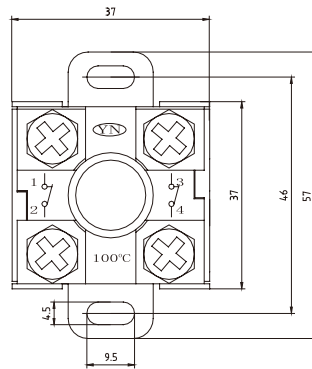
Heating Element

AMERICAN ZETTLER, INC.

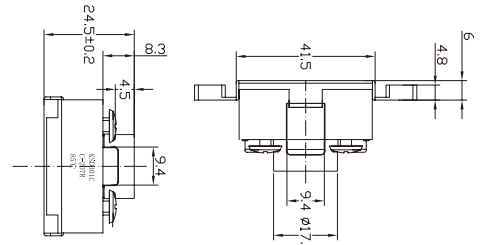
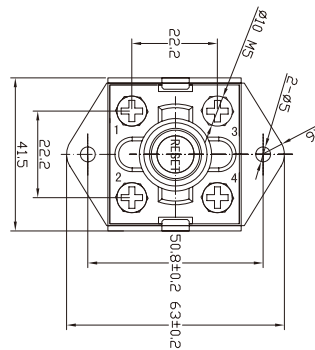




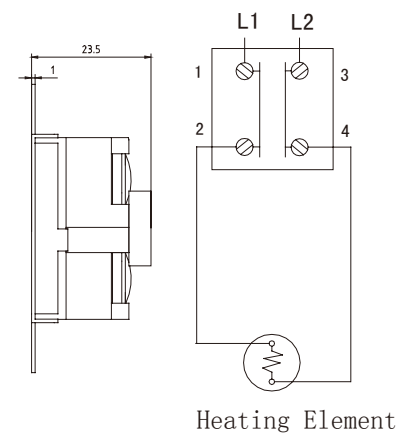
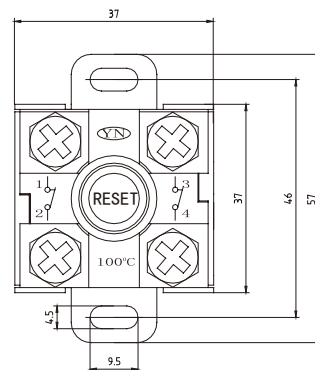
C-207



C-207C

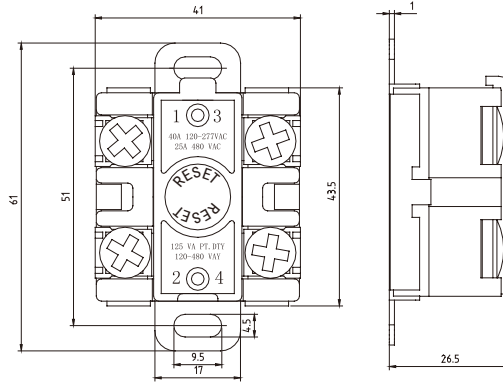


C-207R

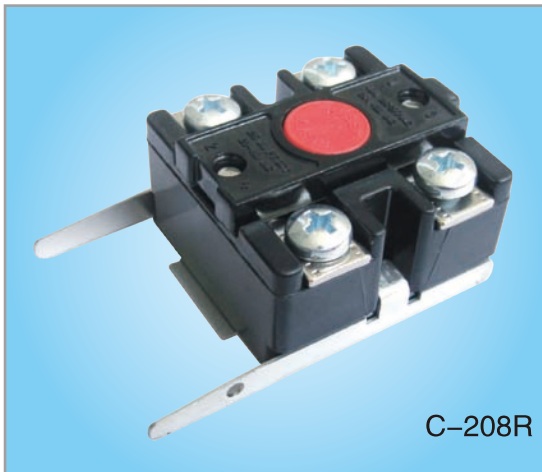




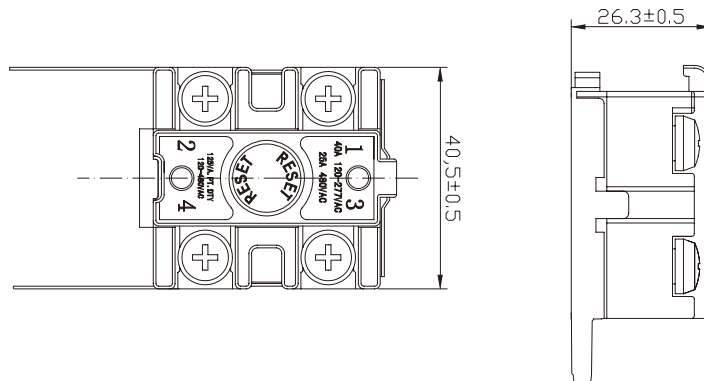
C-208



Heating Element



C-208R



ZETTLER GROUP



AMERICAN ZETTLER, INC

2410 Birch st
Vista, CA, 92081
TEL: 949-360-5840
FAX: 949-360-5839
E-Mail: sales@zettlercontrols.com WEB:
www.zettlercontrols.com



ZETTLER CONTROLS [Ningbo] CO., LTD

No. 16 Xingue Road
Yangming Industrial Park
Yuyao, Zhejiang 315400
China
Tel: +86 574 88036255
Fax: +86 574 88005132
WEB: www.zettlercontrolscn.com



ZETTLER ELECTRONICS GmbH - GERMANY

Junkersstrasse 3
82178 Puchheim
Germany
TEL: +49 89 800 97 0
FAX: +49 89 800 97 200
WEB: www.zettlerelectronics.com



ZETTLER CONTROLS [HK] LTD

Unit 2A, Wing Tai Center
No. 12 Hing Yip Street Kwun Tong Kowloon,
Hong Kong
TEL: +852 2375 1288
FAX: +852 2375 7433
WEB: www.zettlerhk.com



ZETTLER ELECTRONICS POLAND sp.z.o.o.

Osadnikow Wojskowych 40
68-200 Zary
Poland
TEL: +48 68 47 91 437
FAX: +48 68 47 91 439
WEB: www.zettlerelectronics.pl



XIAMEN ZETTLER ELECTRONICS CO., LTD

6-7/F Yinfeng Building, No. 48-50 Huli Ave
Huli District
Xiamen 361006
China
TEL: +86 592 2650 988
FAX: +86 592 2650 900
WEB: www.zettlerc.cn

Other Zettler Group Companies:

AMERICAN ZETTLER, INC - Relays www.azettler.com
ZETTLER MAGNETICS - Transformers www.zettlermagnetics.com
AZ DISPLAYS - LCD'S www.azdisplays.com