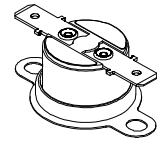


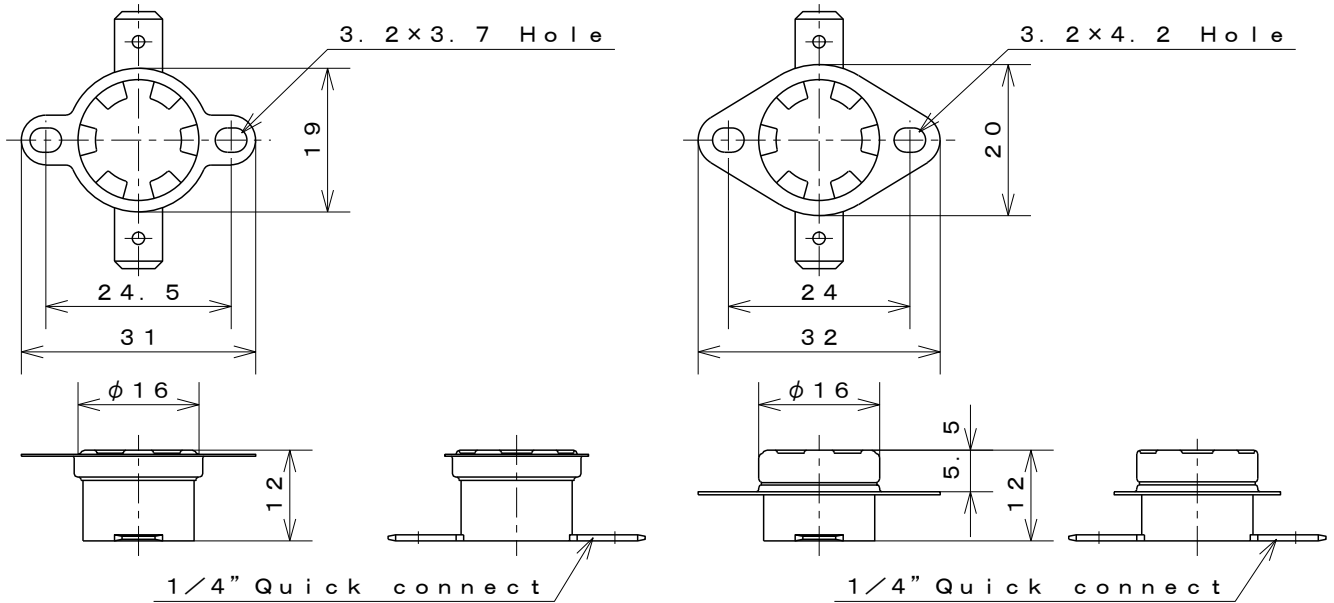


# 1/2" Disc Type Thermostat Automatic Reset

## Type **03EN**



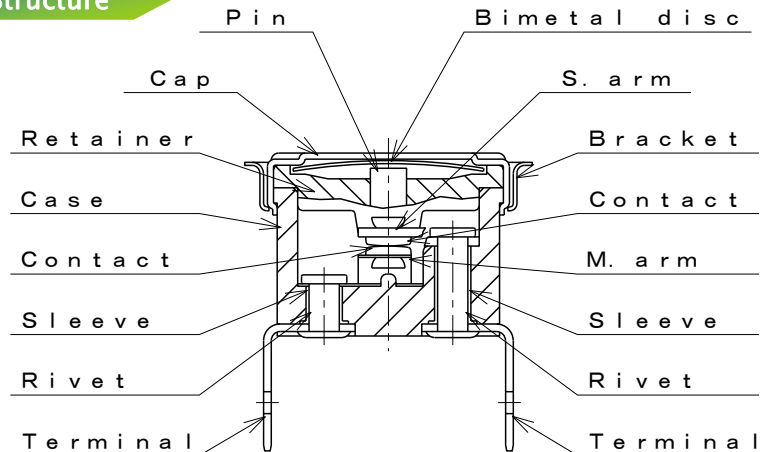
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	UL : AC120V/15A AC240V/10A CSA : AC125V/15A AC250V/8A VDE : AC250V/16A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

### Standard

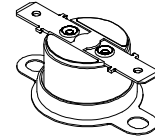
UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
DIN EN 60730-1, -2-9	VDE Licence	No. 40004992



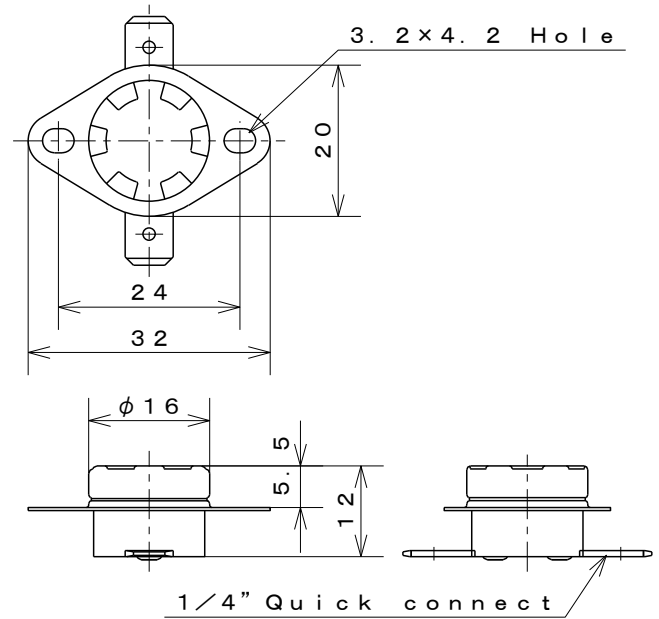
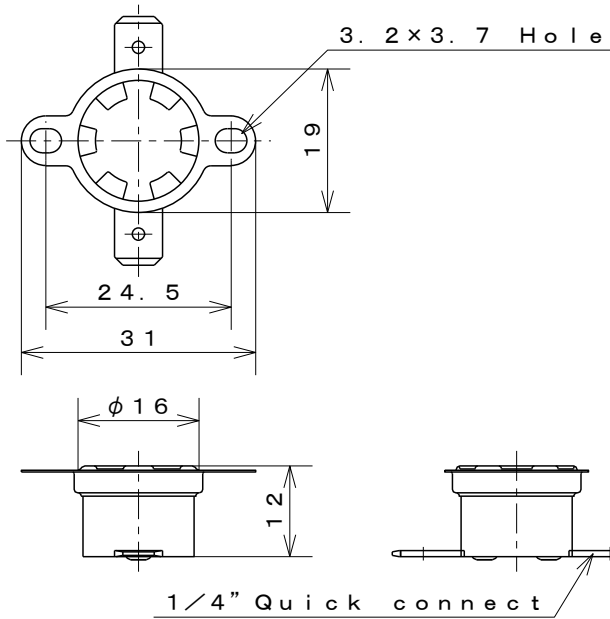


1/2" Disc Type Thermostat  
Automatic Reset

Type **03EP**



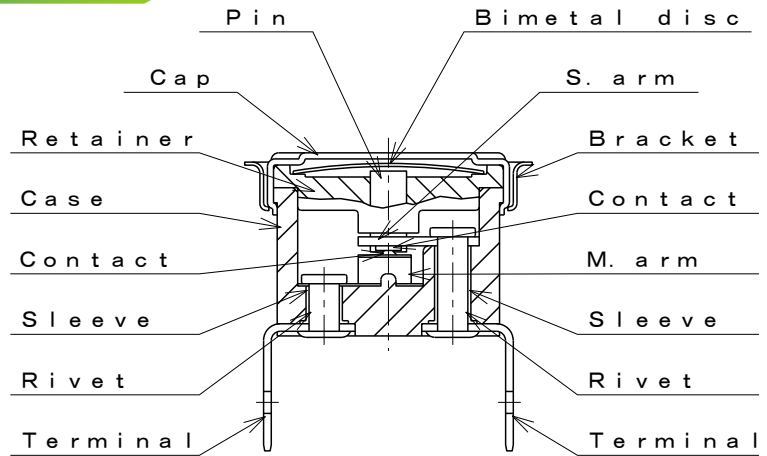
Dimensions



Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	PGS-Crossbar

Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC250V/0.2A DC42V/0.2A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

Standard

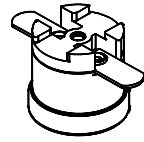
UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
DIN EN 60730-1, -2-9	VDE Licence	No. 40004992



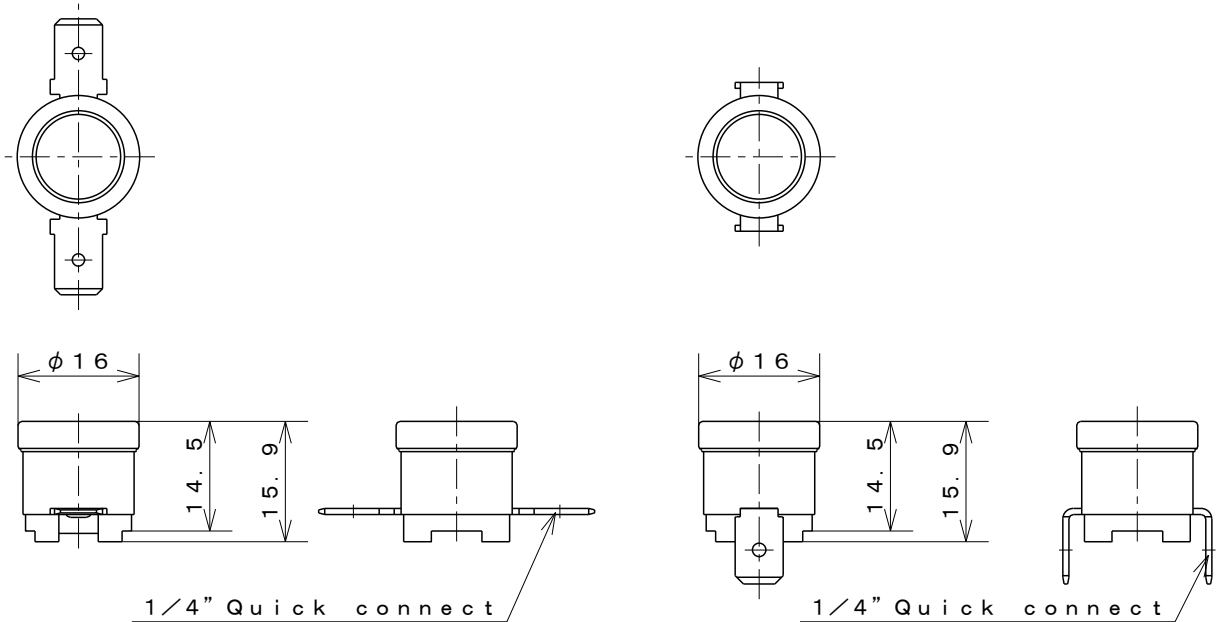


1/2" Disc Type Thermostat  
High Temp.& Four Legs Type

Type **07N**



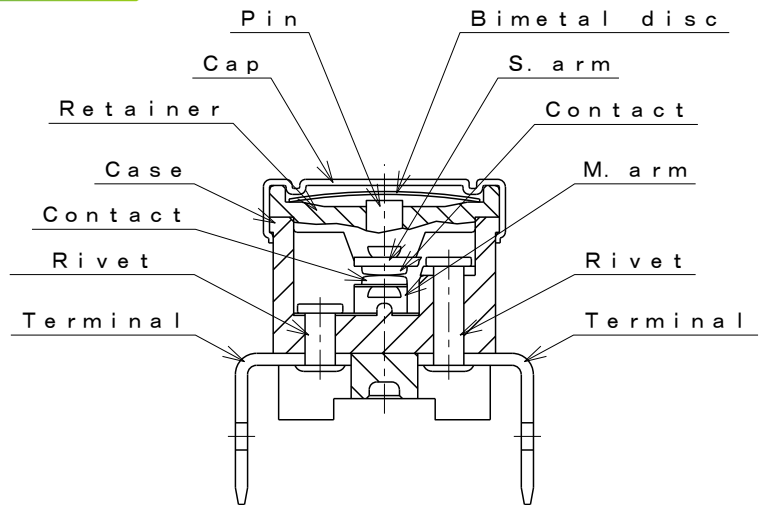
Dimensions



Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Brass, Steel
Contacts	Silver-Nickel alloy

Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	VDE : AC250V/10A 100,000 Cycles AC250V/13A 30,000 Cycles AC250V/16A 10,000 Cycles UL-CSA : AC125V/15A, AC250V/10A 100,000 Cycles
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 230°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

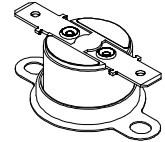
Standard

UL873 CSA C22.2 No.24(C-UR) UL File No. E43273  
DIN EN 60730-1, -2-9 VDE Licence No. 40004992

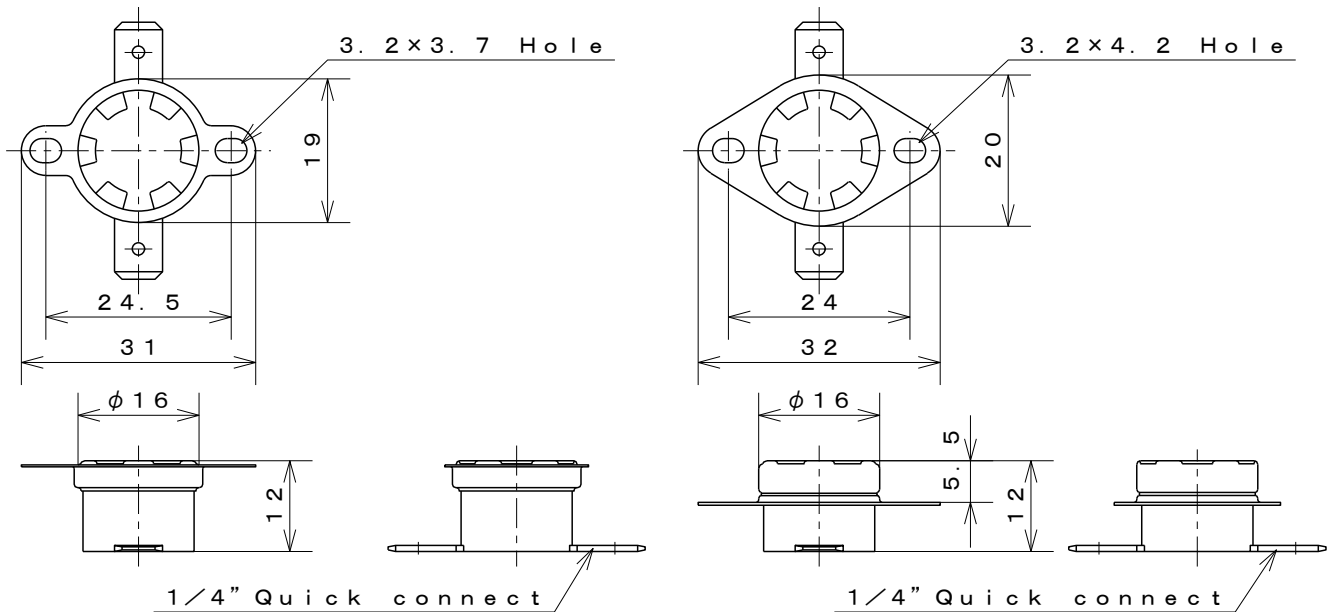


# 1/2" Disc Type Thermostat Automatic Reset

## Type 21EN



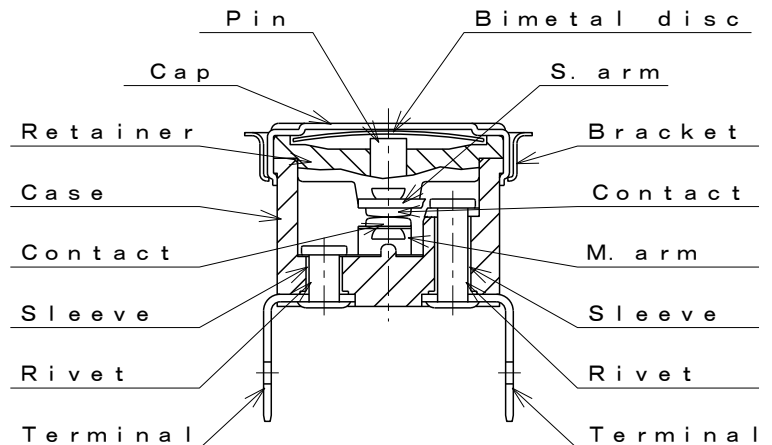
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Polyester resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC250V/16A 10,000 cycles VDE:AC250V/10A 100,000 cycles
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 180°C
6. Insulation resistance	1,000MΩ or more / DC500V
7. Dielectric strength	AC1,500V/1min. or AC1,800V/1sec.

### Standard

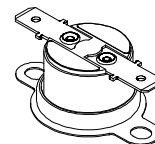
UL 873, CSA C22.2(C-UR) UL File No. E43273  
 DIN EN 60730-1, -2-9 VDE Licence No. 40004992  
 MITI (JET) J-147



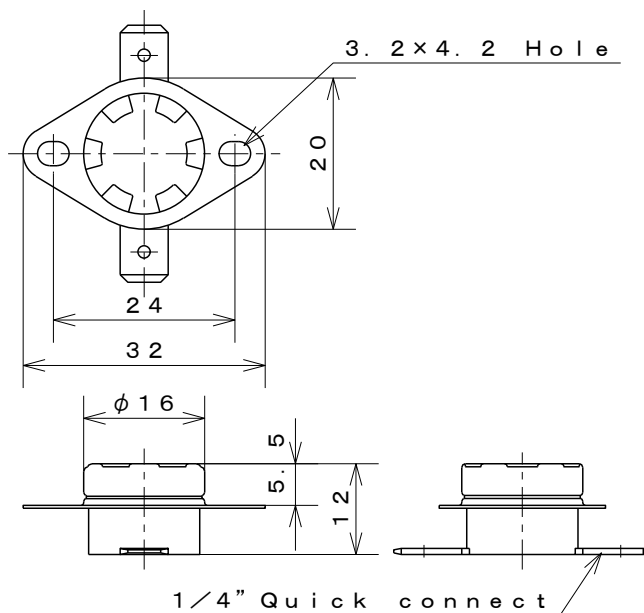
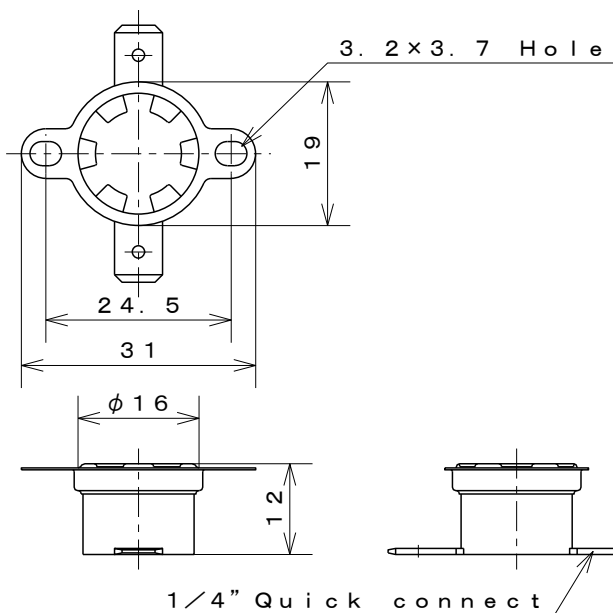


# 1/2" Disc Type Thermostat Automatic Reset

## Type 21EP



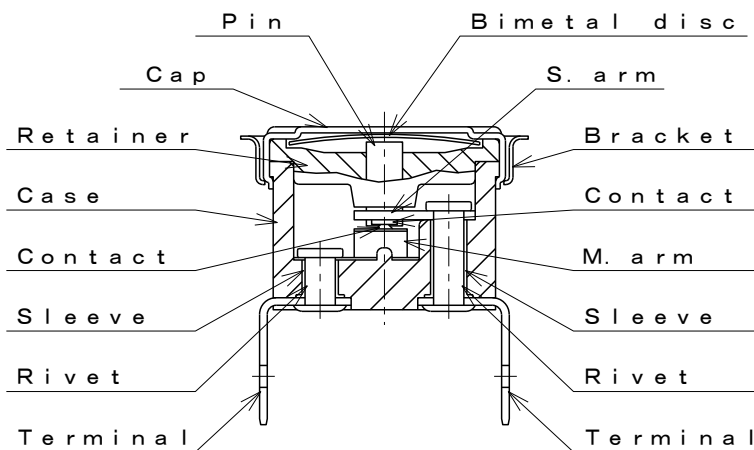
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Polyester resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	PGS-Crossbar

### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC250V/0.2A DC42V/0.2A 100,000 cycles
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 180°C
6. Insulation resistance	1,000MΩ or more / DC500V
7. Dielectric strength	AC1,500V/1min. or AC1,800V/1sec.

### Standard

UL 873, CSA C22.2(C-UR) UL File No. E43273  
 DIN EN 60730-1, -2-9 VDE Licence No. 40004992

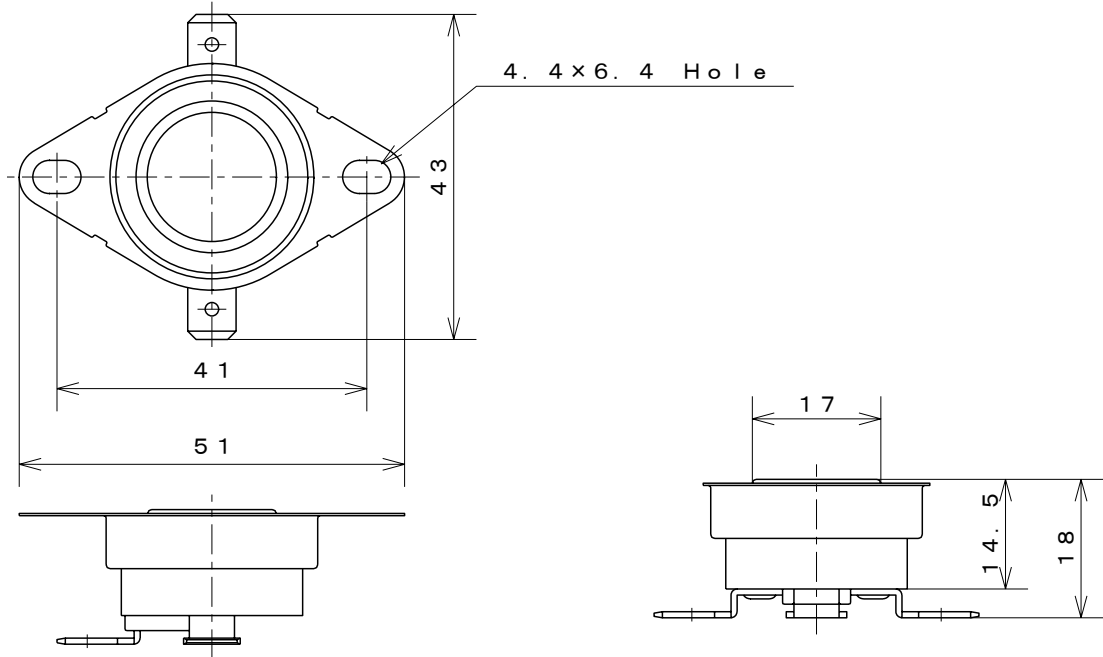




3/4" Disc Type Thermostat  
Automatic Reset

Type **30** Series

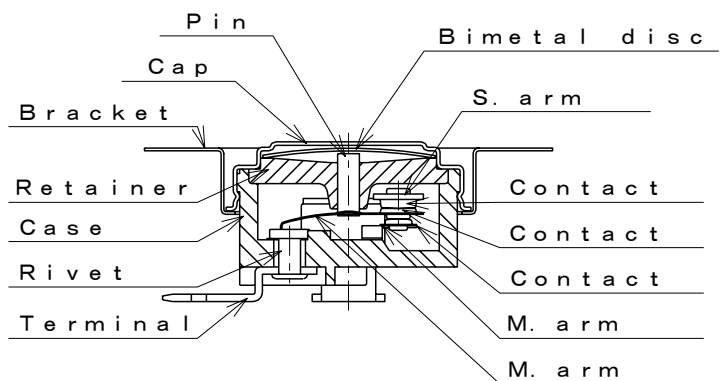
Dimensions



Materials of parts

Part	Material
Cap	Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy (31,32) Silver (33)

Structure



Specification

Item	Specification
1. Basic features	SPDT Automatic reset
2. Operation	L : Contacts open on temperature rise F : Contacts close on temperature rise
3. Electrical rating by variation of Type	31 :C-A AC125V/20A AC250V/15A :C-B AC125V/10A AC250V/ 8A 32 :C-A AC125V/20A AC250V/15A :C-B AC125V/ 3A AC250V/ 3A 33 :C-A AC125V/ 3A AC250V/ 3A :C-B AC125V/ 3A AC250V/ 3A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than AC1,000MΩ /DC500V.
7. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1 sec.

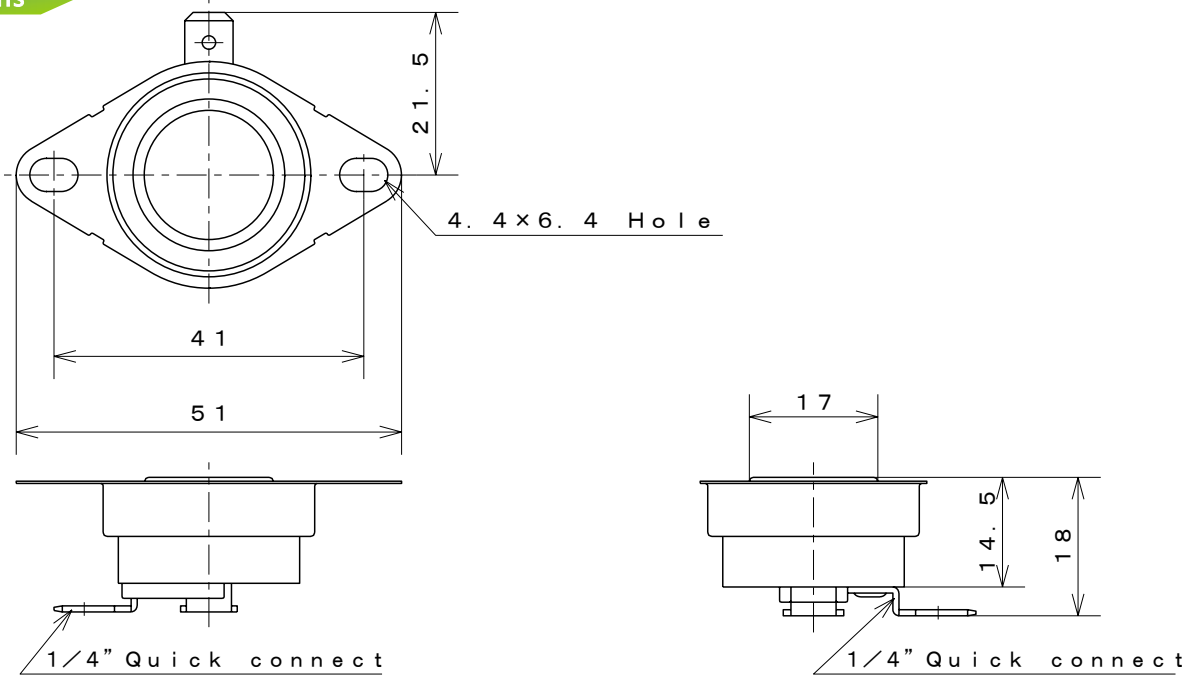




# 3/4" Disc Type Thermostat Automatic Reset

# Type 41

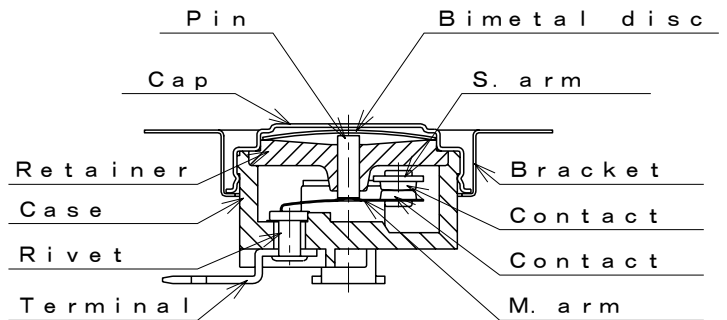
## Dimensions



## Materials of parts

Part	Material
Cap	Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

## Structure



## Specification

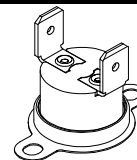
Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC125V/20A AC250V/15A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.



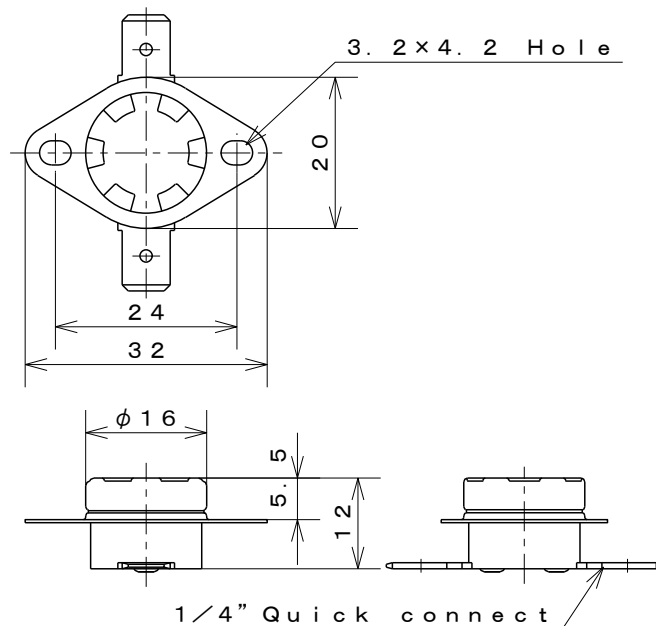
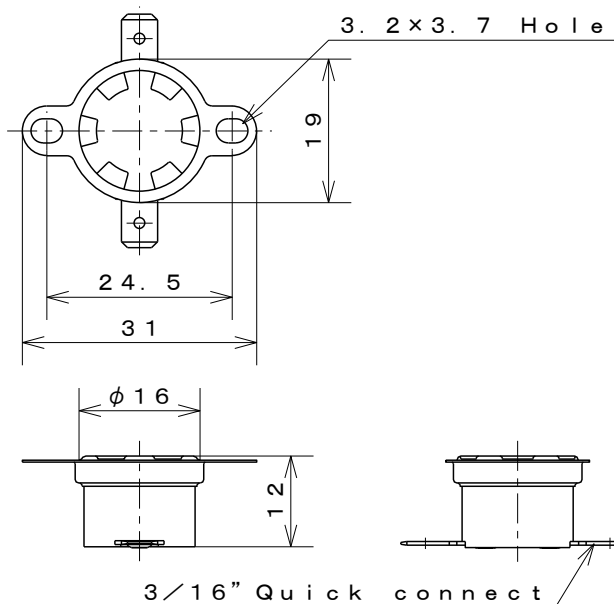


# 1/2" Disc Type Thermostat High Temp. Type

## Type 52N



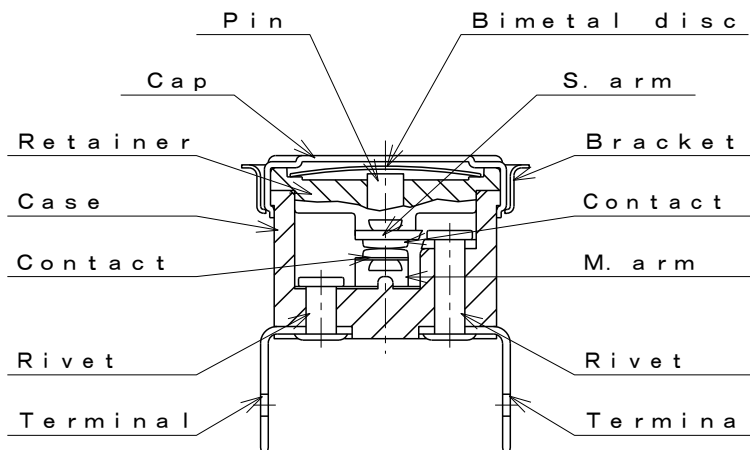
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Brass, Steel
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	UL, CSA : AC125V/15A AC250V/10A (100,000 cycles) VDE : AC250V/10A (100,000 cycles) , AC250V/16A (10,000 cycles)
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 200°C 230°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1 sec.

### Standard

UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
DIN EN 60730-1, -2-9	VDE Licence	No. 40004992

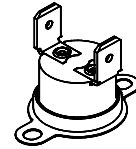




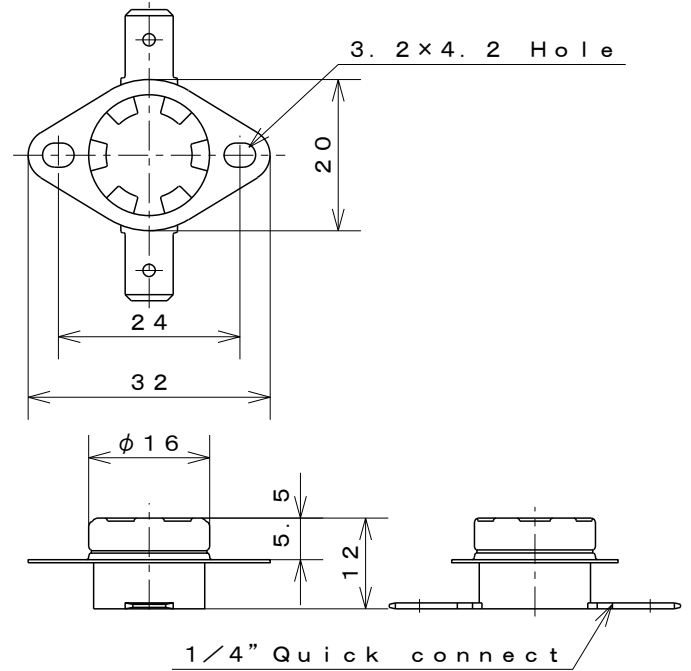
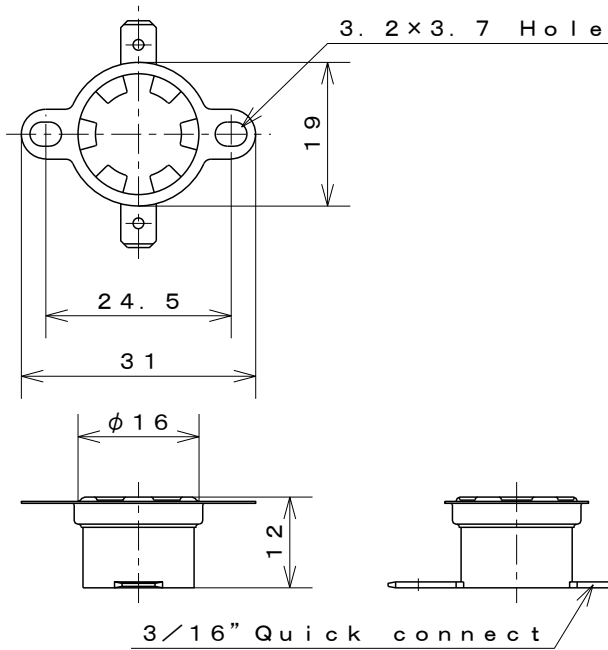


1/2" Disc Type Thermostat  
High Temp. Type

Type **52P**



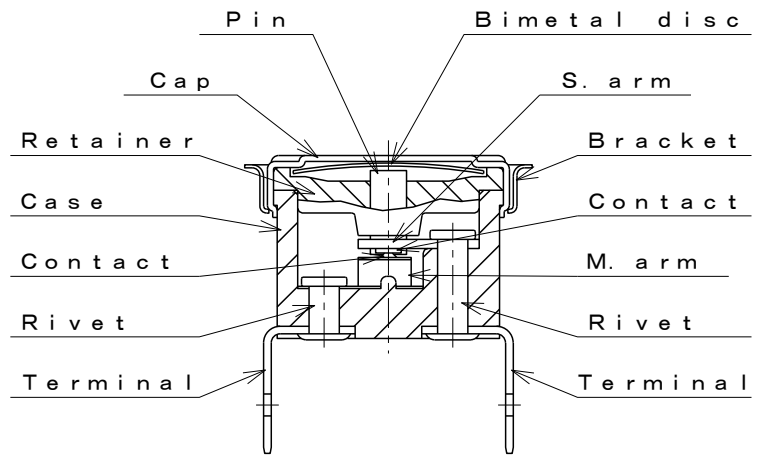
Dimensions



Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Brass, Steel
Bracket	Stainless steel
Contacts	PGS-Crossbar

Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC250V/0.2A DC42V/0.2A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 230°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

Standard

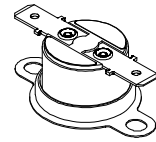
UL 873, C-UR C22.2 No.24 UL File No. E43273  
DIN EN 60730-1, -2-9 VDE Licence No. 40004992



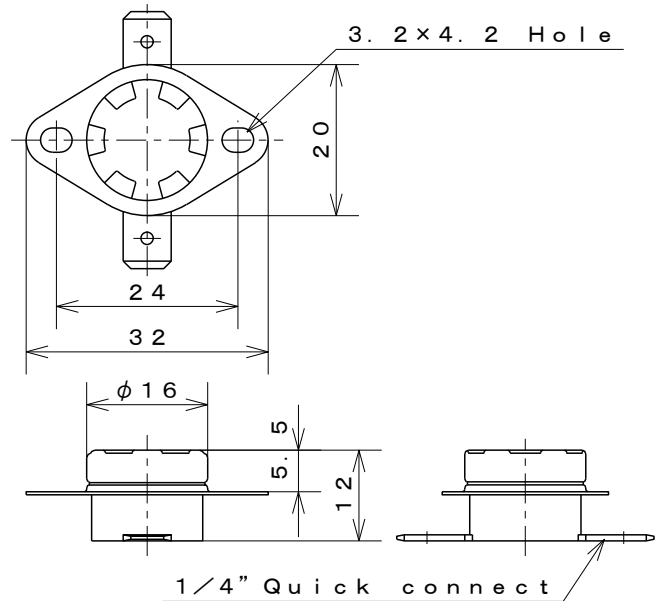
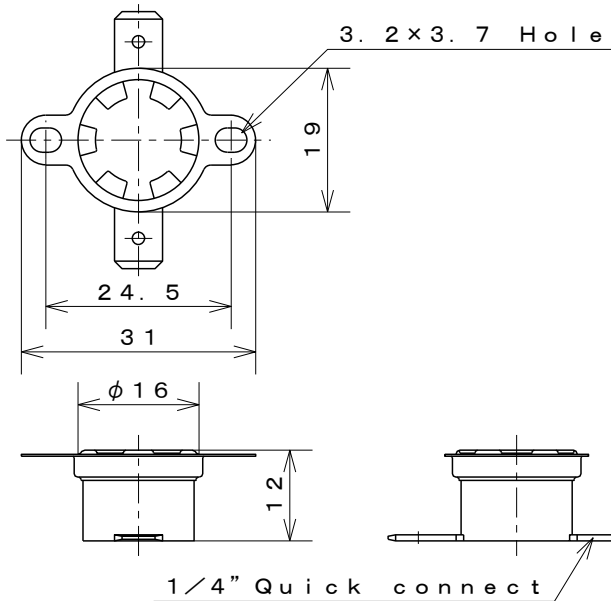


# 1/2" Disc Type Thermostat Automatic Reset

## Type 54N



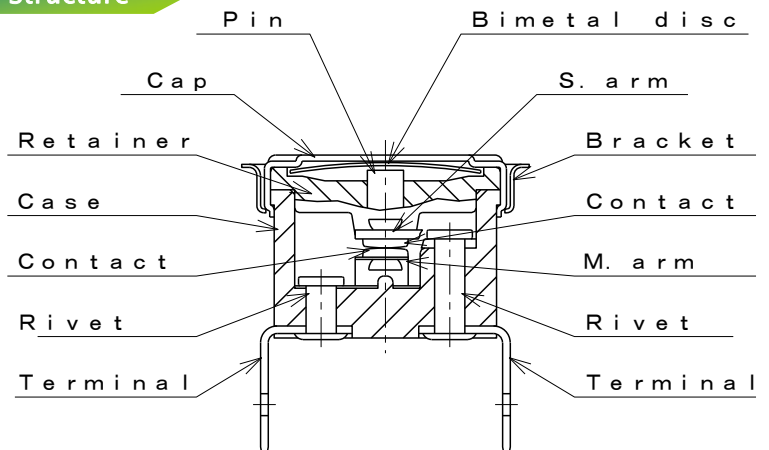
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	UL : AC120V/15A AC240V/10A CSA : AC125V/15A AC250V/8A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

### Standard

UL 873  
CSA C22.2 No. 24

UL File No. E43273  
CSA Report No. LR67165

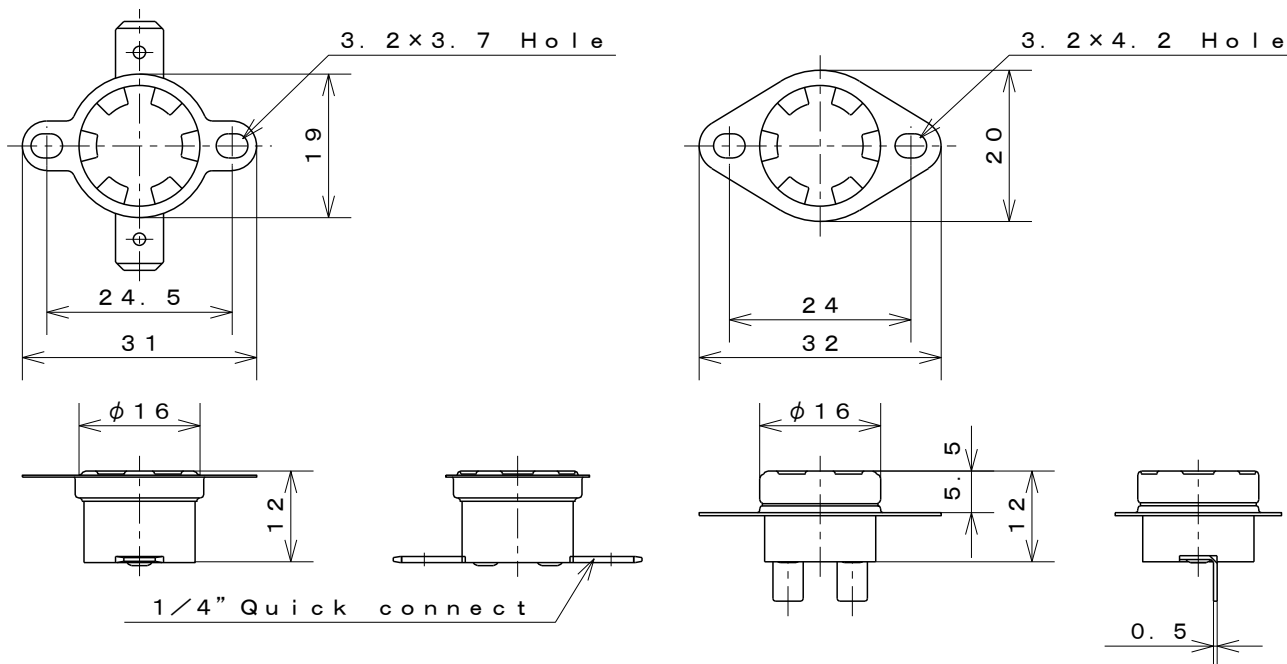




# 1/2" Disc Type Thermostat High Temp. Type

# Type 55H

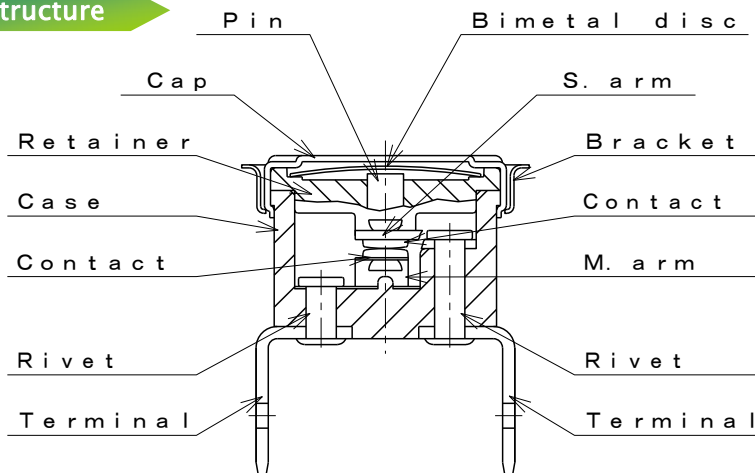
## Dimensions



## Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Ceramic
M.arm	Nickel alloy
Terminals	Steel #250 Tab, Weld
Bracket	Stainless steel
Contacts	Silver

## Structure



## Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise
3. Electrical rating	AC250V/7A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 260°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1 sec.

## Standard

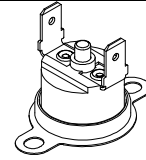
DIN EN 60730-1, -2-9 VDE File No.40004992



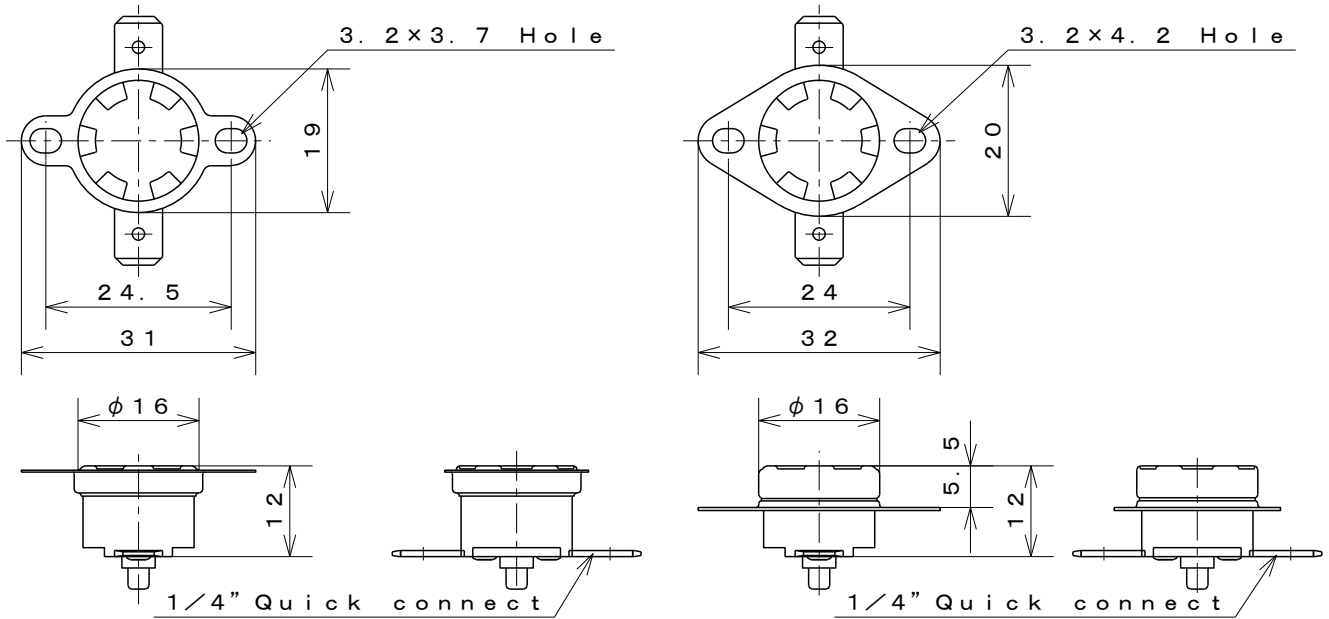


1/2" Disc Type Thermostat  
Manual Reset

Type **05EN**



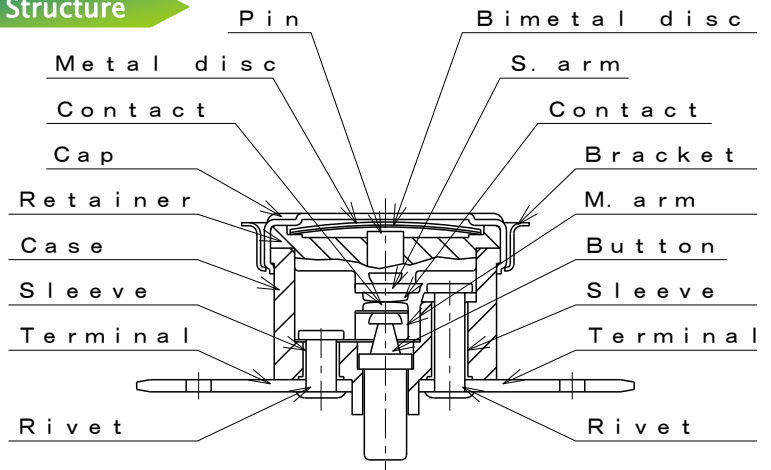
Dimensions



Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy
Button	Phenolic resin

Structure



Specification

Item	Specification
1. Basic features	SPST Manual reset
2. Operation	A : Contacts open on temperature rise Not automatic reset
3. Electrical rating	UL : AC120V/15A AC240V/10A CSA : AC125V/15A AC250V/10A VDE : AC250V/16A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

Standard

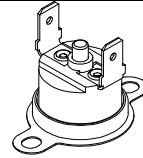
UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
DIN EN 60730-1, -2-9	VDE Licence	No. 40012267



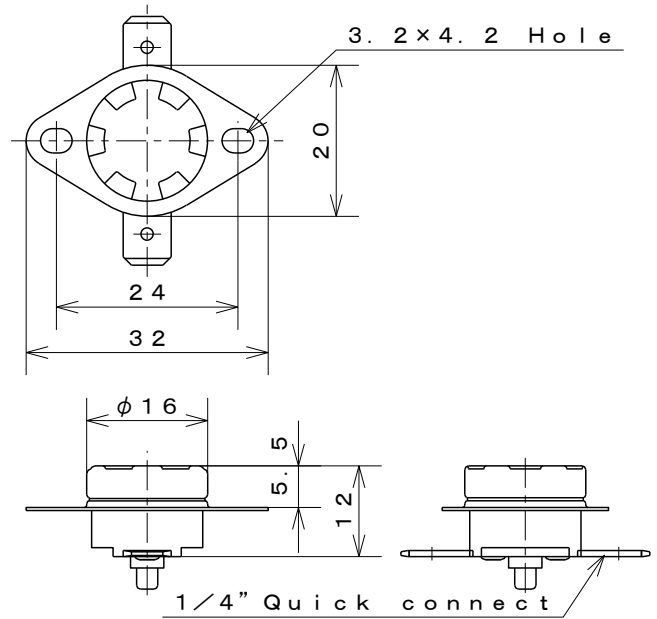
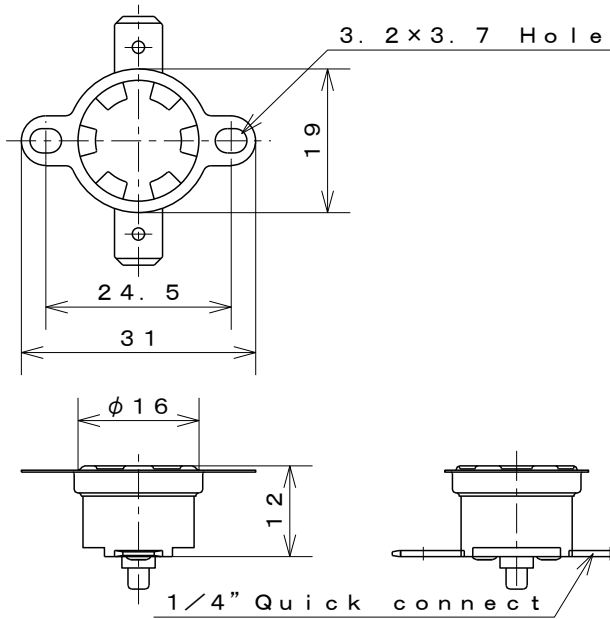


# 1/2" Disc Type Thermostat Manual Reset

## Type 05EP



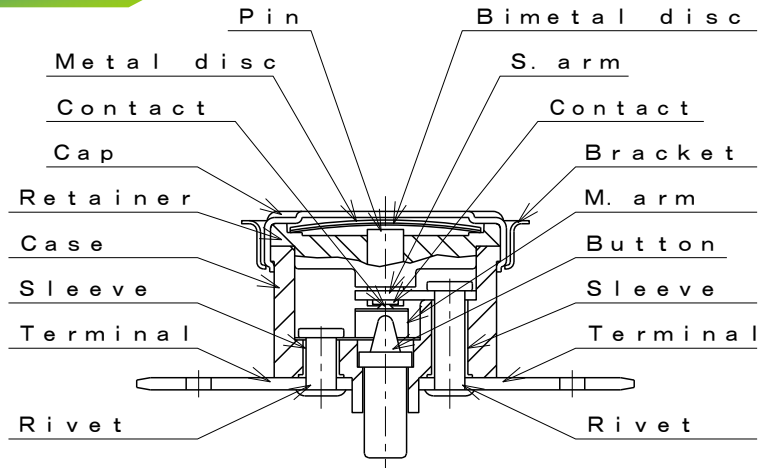
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	PGS-Crossbar
Button	Phenolic resin

### Structure



### Specification

Item	Specification
1. Basic features	SPST Manual reset
2. Operation	A : Contacts open on temperature rise Not automatic reset
3. Electrical rating	UL / CSA : AC250V/0.1A DC30V/0.1A VDE : AC250V/0.2A DC42V/0.2A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

### Standard

UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
DIN EN 60730-1, -2-9	VDE Licence	No. 40012267



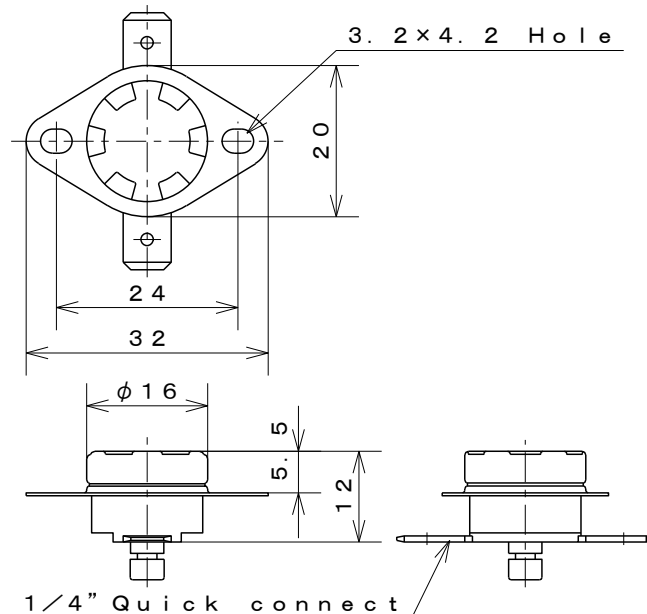
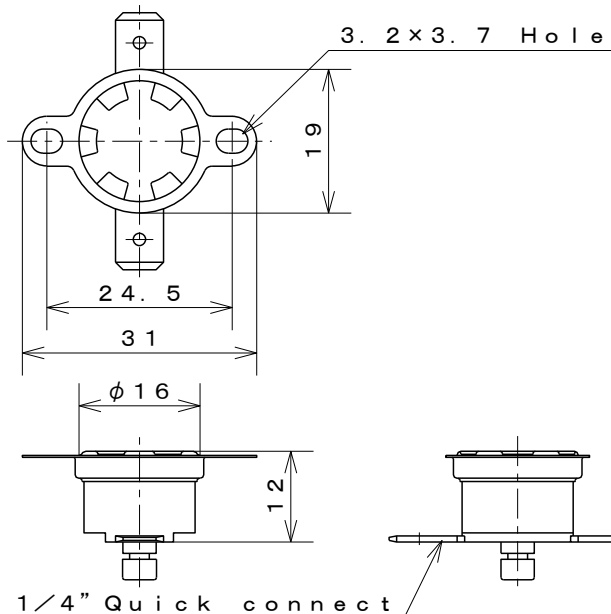


# 1/2" Disc Type Thermostat High Temp. Manual Reset

# Type 15N

UL-C-UR-VDE  
Recognized

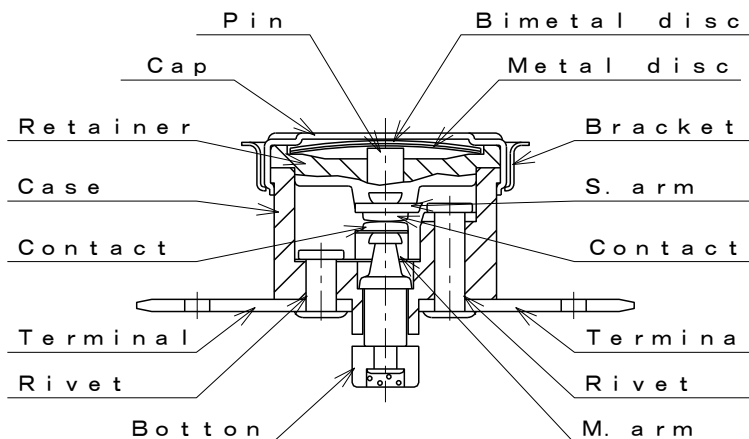
## Dimensions



## Materials of parts

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Steel
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

## Structure



## Specification

Item	Specification
1. Basic features	SPST Manual reset
2. Operation	A : Contacts open on temperature rise Not automatic reset
3. Electrical rating	AC125V/15A AC250V/10A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 250°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

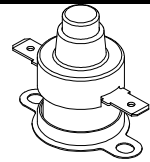
## Standard

MITI (JET) J-58	UL File	No. E201152
UL 60730-1, -2-9	C-UR	
CAN/CSA E730-1, -2-9	VDE Licence	No. 40019831
DIN EN 60730-1, -2-9		

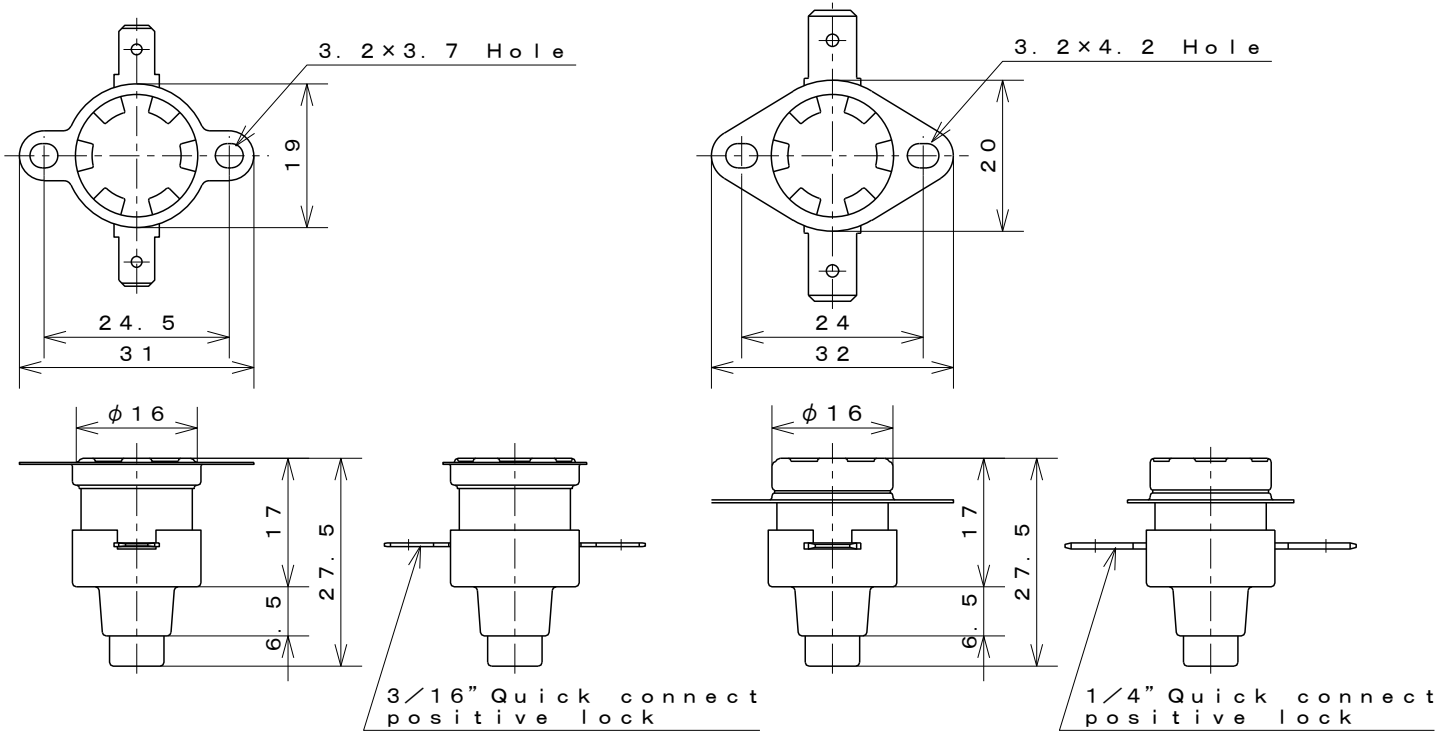


# 1/2" Disc Type Thermostat Manual Reset

## Type 23EN



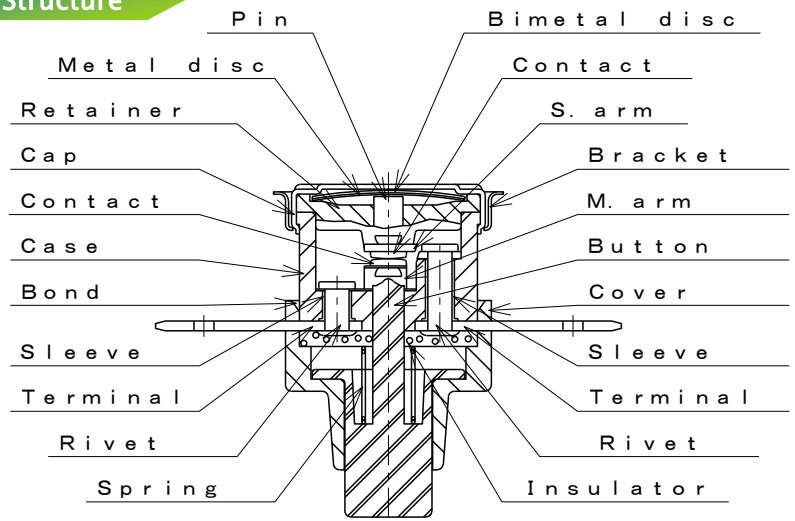
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy
Button	Phenolic resin

### Structure



### Specification

Item	Specification
1. Basic features	SPST Manual reset
2. Operation	A : Contacts open on temperature rise    Not automatic reset
3. Electrical rating	UL, C-UR : AC120V/15A AC240V/10A    6,000 cycles VDE : AC250V/16A    3,000 cycles
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

### Standard

UL 873, C-UR                      UL File                      No. E43273  
DIN EN 60730-1, -2-9 VDE Licence                      No. 40012267



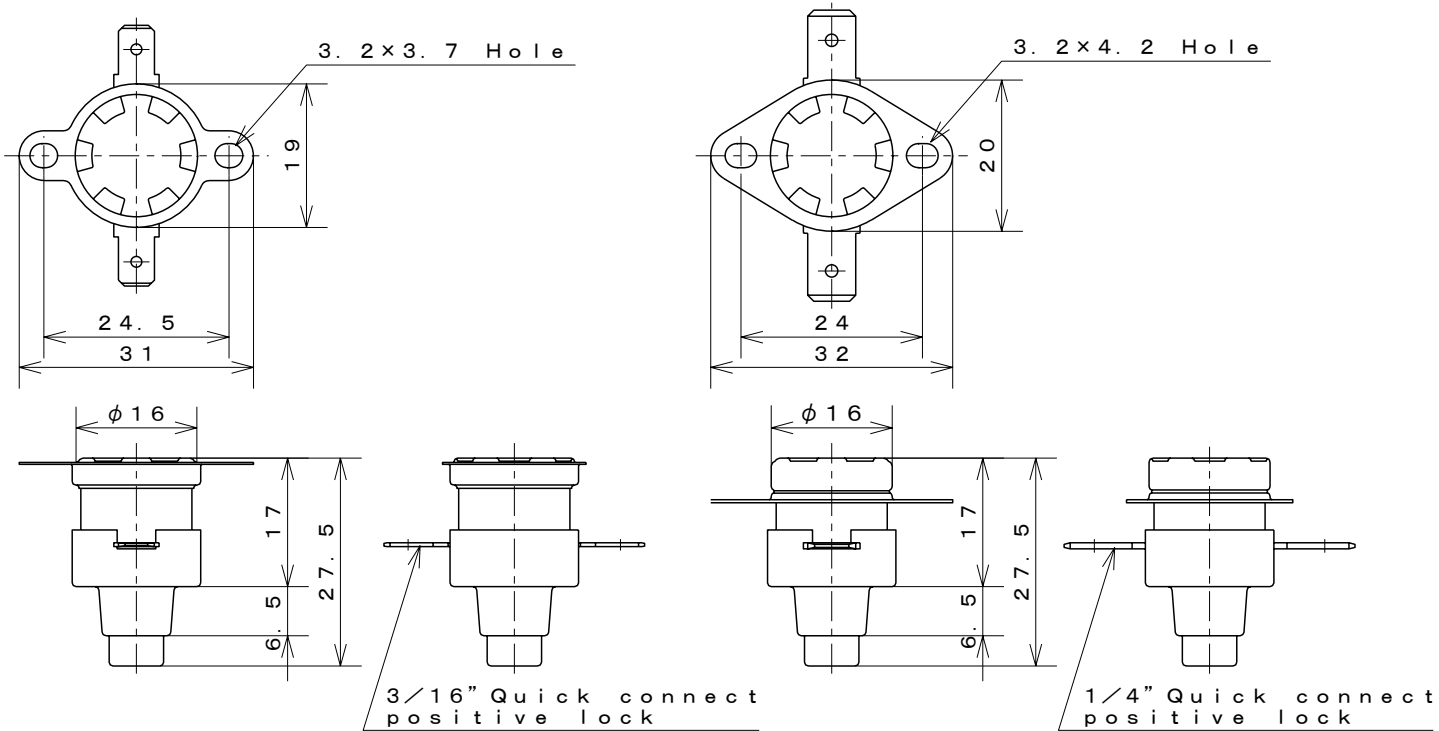


1/2" Disc Type Thermostat  
Manual Reset

Type **23EP**

VDE  
Recognized

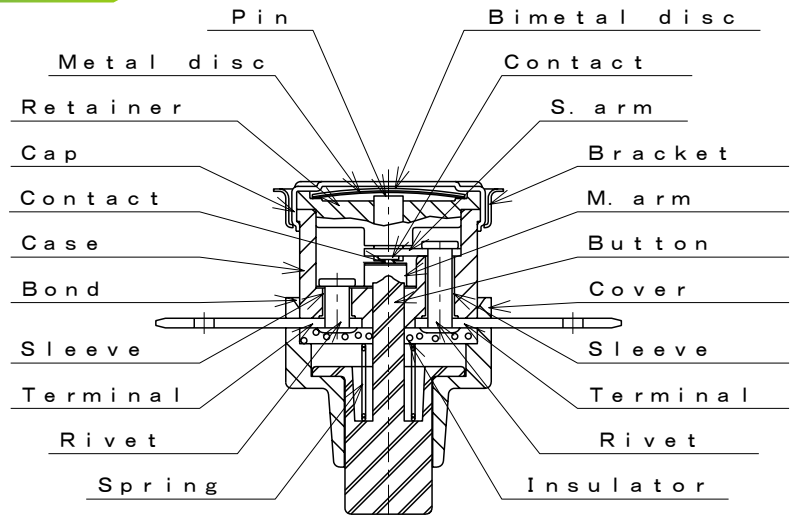
Dimensions



Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	PGS-Crossbar
Button	Phenolic resin

Structure



Specification

Item	Specification
1. Basic features	SPST Manual reset
2. Operation	A : Contacts open on temperature rise Not automatic reset
3. Electrical rating	AC250V/0.2A DC42V/0.2A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

Standard

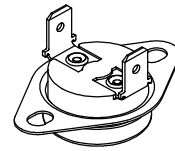
DIN EN 60730-1, -2-9 VDE Licence No. 40012267



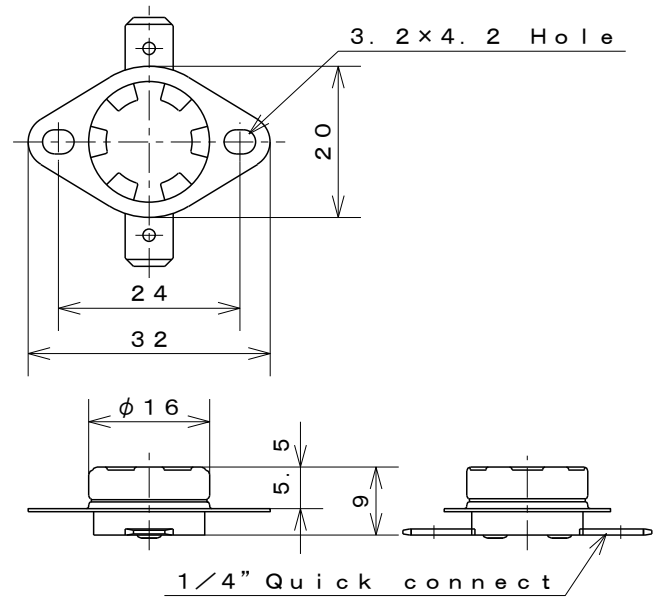
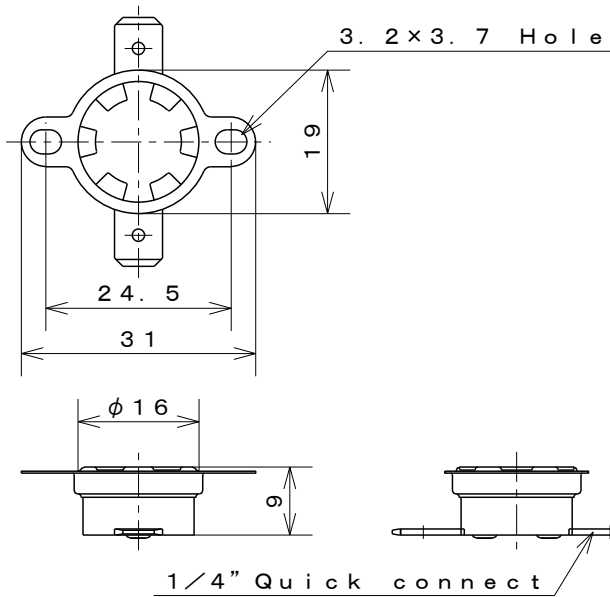


# 1/2" Disc Type Thermostat Thin Type

## Type 10N



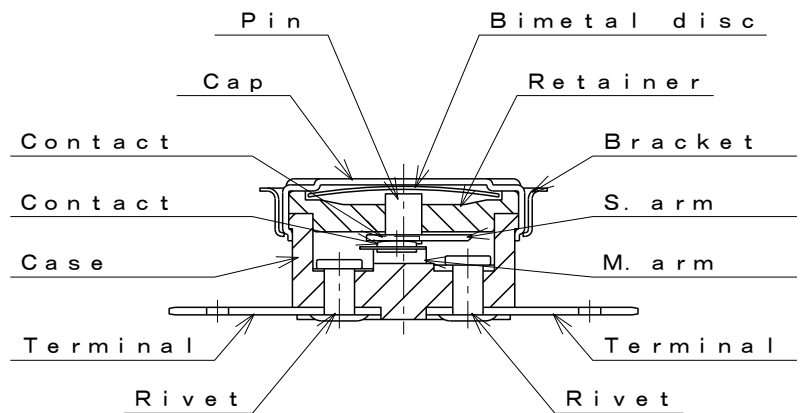
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Copper alloy
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC125V/15A AC250V/10A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 200°C(UL:175°C CSA:200°C)
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

### Standard

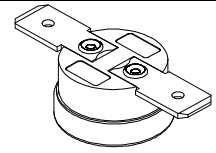
UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
MITI (JET)	J-53	



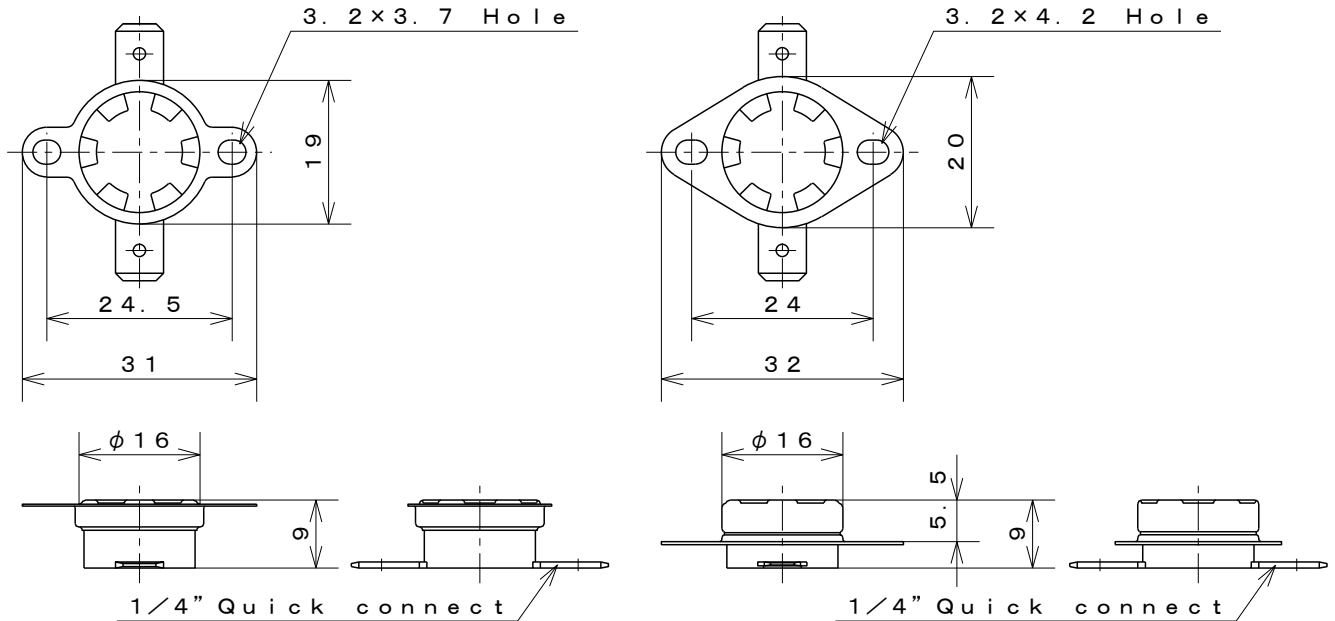


# 1/2" Disc Type Thermostat Thin Type

## Type 11EN



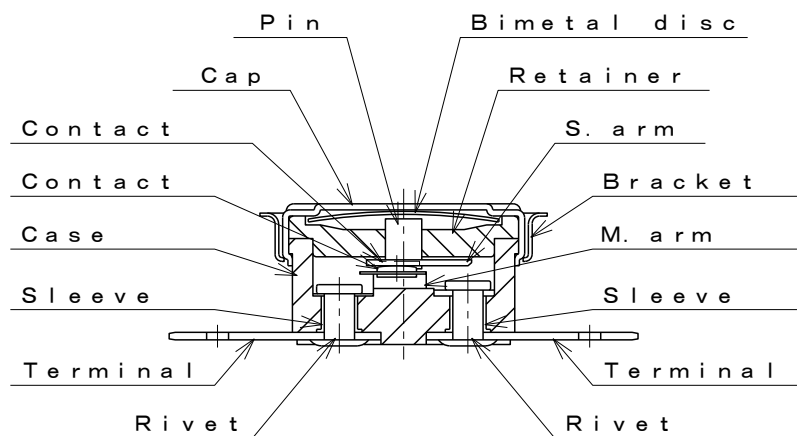
### Dimensions



### Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC125V/15A AC250V/10A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

### Standard

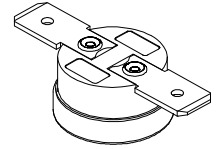
UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
DIN EN 60730-1, -2-9	VDE Licence	No. 40004286



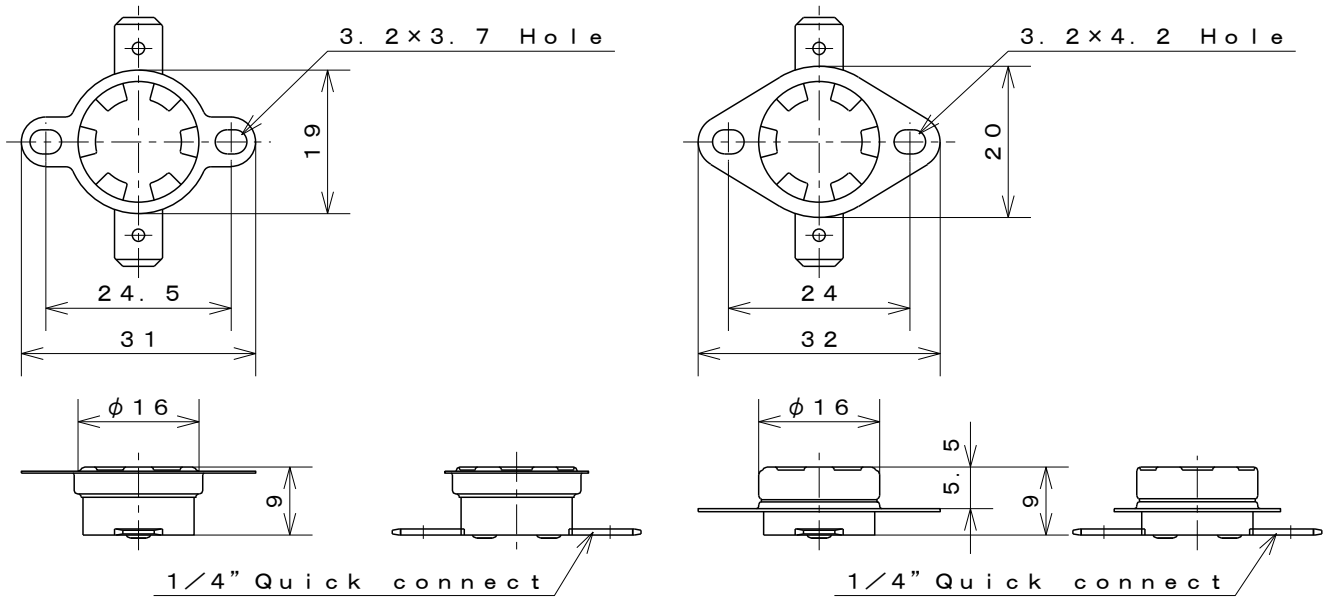


1/2" Disc Type Thermostat  
Thin Type

Type **11ES**



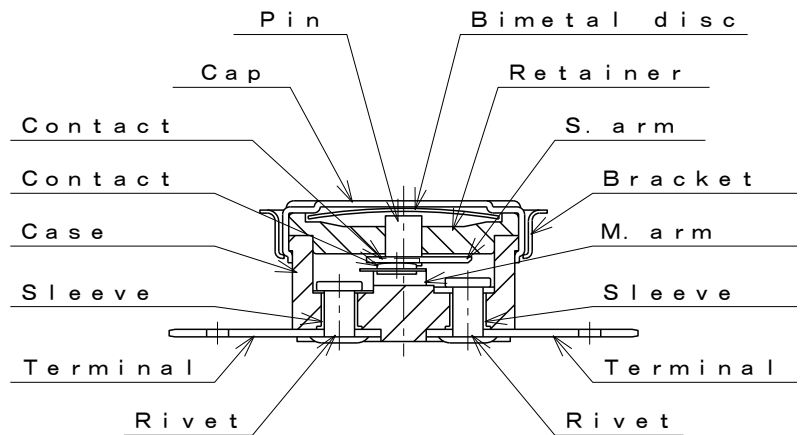
Dimensions



Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC125V/6A AC250V/3A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1 sec.

Standard

UL 873	UL File	No. E43273
CSA C22.2 No. 24	CSA Report	No. LR67165
DIN EN 60730-1, -2-9	VDE Licence	No. 40004286

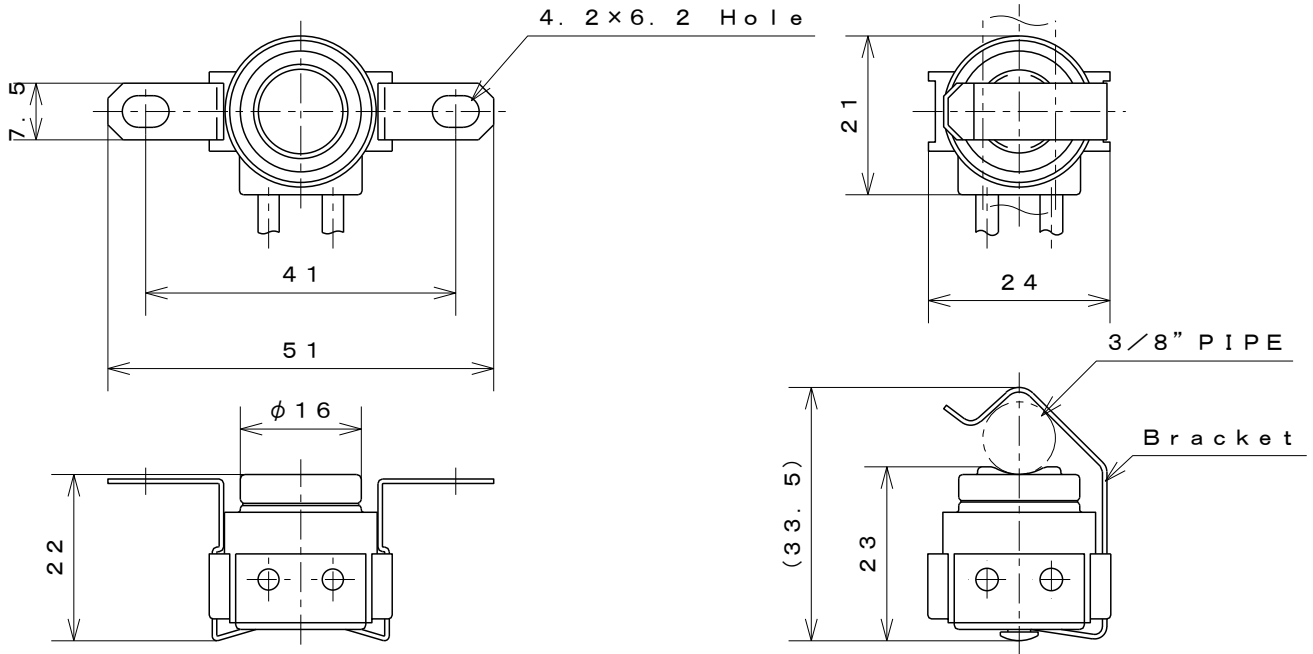




1/2" Disc Type Thermostat  
Water Proof Type

Type **12E□** for Europe

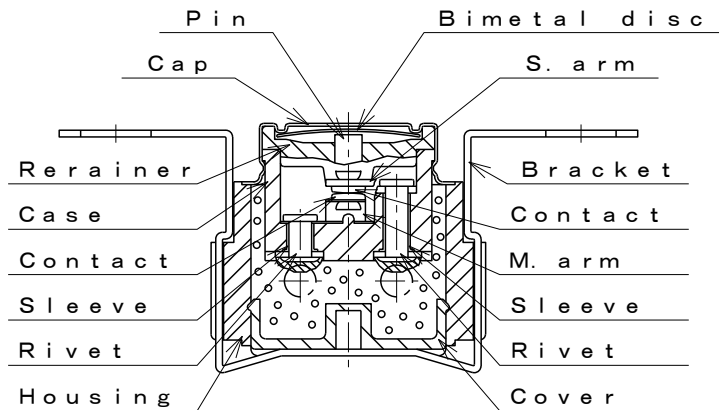
Dimensions



Materials of parts

Part	Material
Cap	Copper
	Stainless steel
Case	Phenolic resin
Husing	Polycarbonate
Bracket	Stainless steel
Fulling	Polyurethane
Leads	PVC 1.25mm <sup>2</sup>
Contacts	Silver-Nickel alloy (N)
	Silver (C)
	PGS-Crossbar (X, P)

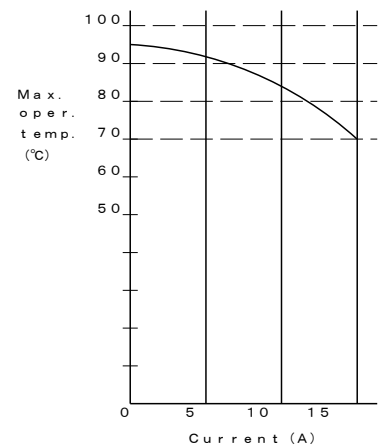
Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	L : Contacts open on temp. rise F : Contacts close on temp. rise
3. Electrical rating by variation of contacts	N : AC125V/15A AC250V/ 8A C : AC125V/ 6A AC250V/ 3A X : AC125V/ 1A DC30V/ 1A P : AC125V/0.2A DC30V/0.2A
4. Calibration method	Hot & cold air or liquid circulation system
5. Insulation resistance	Not less than 1,000MΩ/DC500V
6. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1sec.
7. Resistance between Lead (at Lead is 1 meter)	N,C : Not more than 100mΩ X,P : Not more than 50mΩ

Relation of current & Max. operating temp.



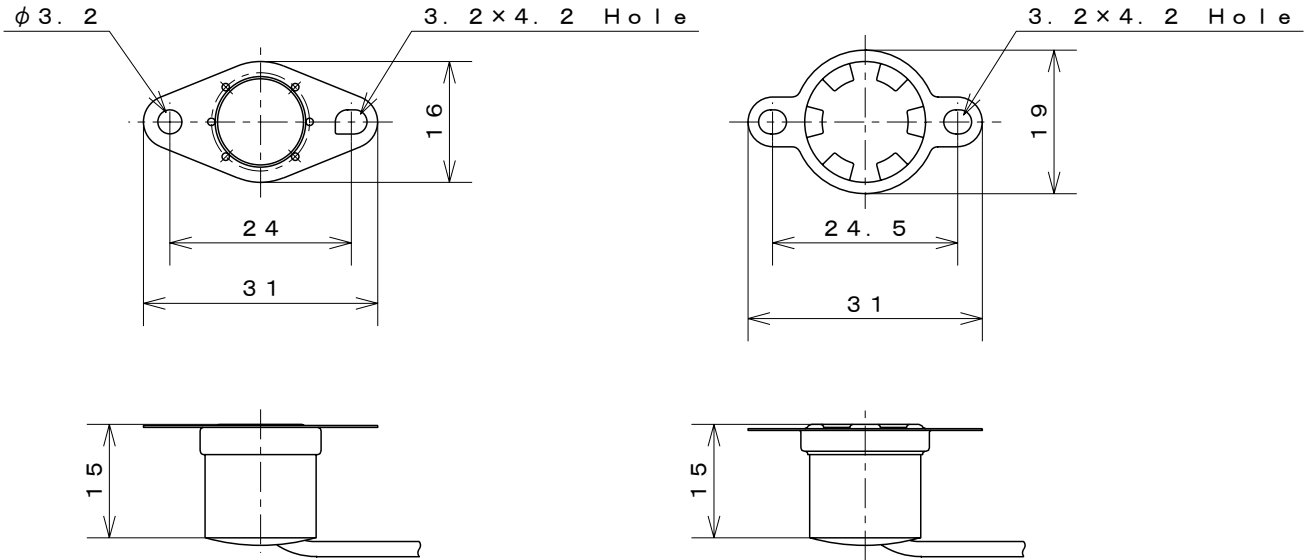


1/2" Disc Type Thermostat  
Drip-proof Type. Automatic Reset

Type **20N**

UL-C-UR  
Recognized

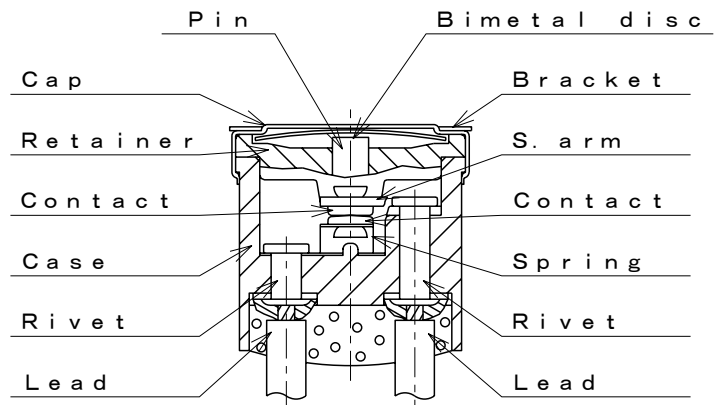
**Dimensions**



**Materials of parts**

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Leads	UL1430 etc
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

**Structure**



**Specification**

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC120V/15A AC240V/10A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 80°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

**Standard**

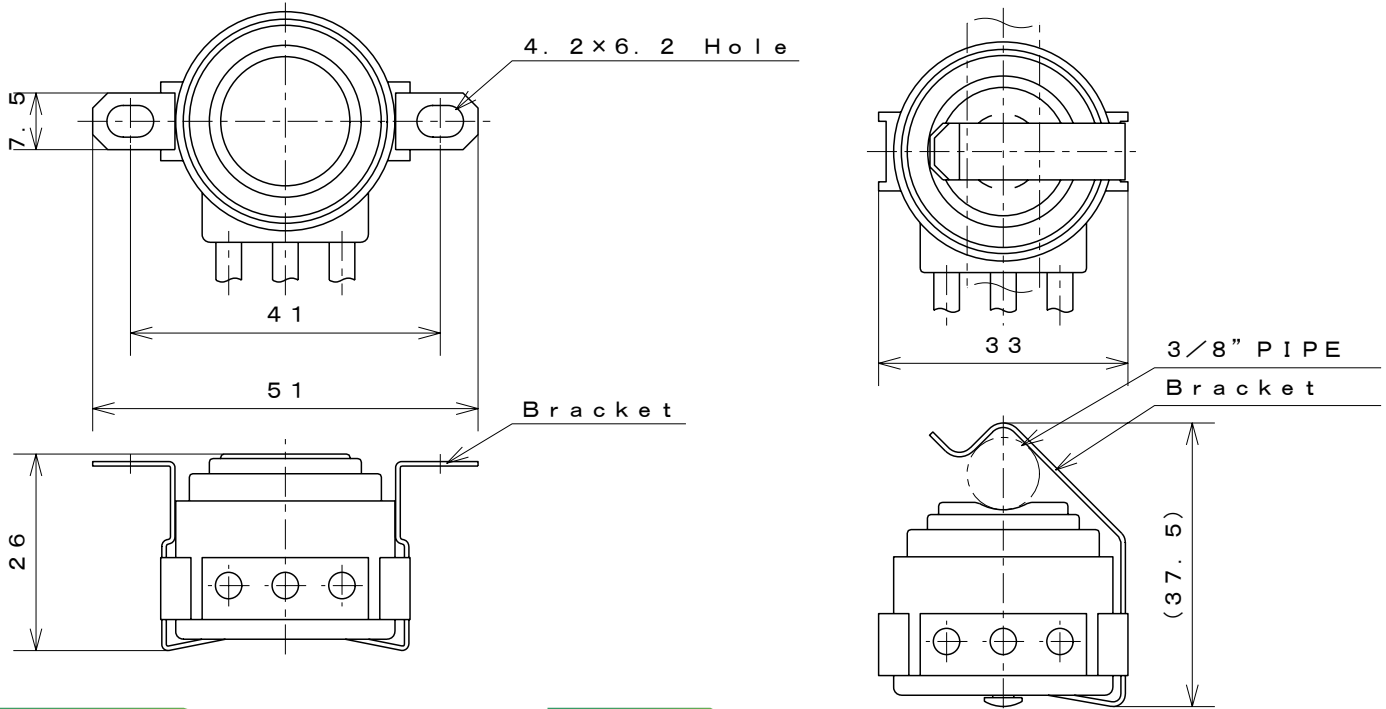
UL 873, C-UR      UL File      No. E43273



3/4" Disc Type Thermostat  
Water-proof Type Automatic Reset

Type **30** Series

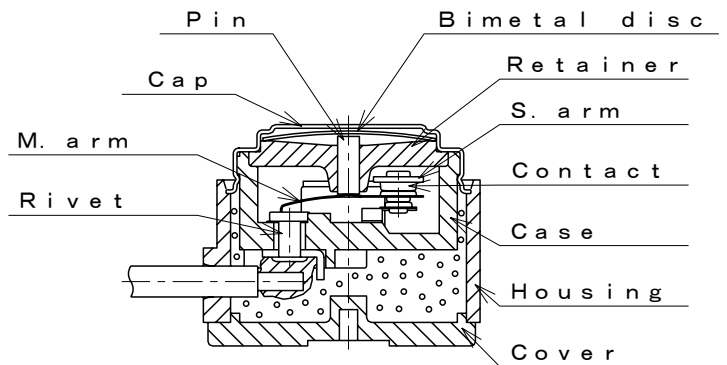
Dimensions



Materials of parts

Part	Material
Cap	Copper Stainless steel
Case	Phenolic resin
Housing	Polycarbonate
Bracket	Stainless steel
Fulling	Polyurethane
Leads	PVC
Contacts	Silver-Nickel alloy (36,37) Silver (38)

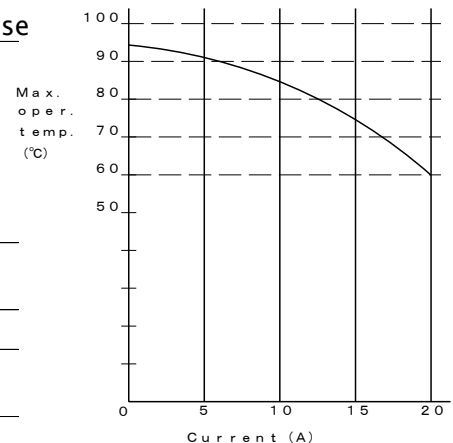
Structure



Specification

Item	Specification
1. Basic features	SPDT Automatic reset
2. Operation	L : Contacts open on temperature rise F : Contacts close on temperature rise
3. Electrical rating	36 :C-A AC125V/20A AC250V/15A :C-B AC125V/10A AC250V/ 8A 37 :C-A AC125V/20A AC250V/15A :C-B AC125V/ 3A AC250V/ 3A 38 :C-A AC125V/ 3A AC250V/ 3A :C-B AC125V/ 3A AC250V/ 3A
4. Calibration method	Hot & cold air or liquid circulation system
5. Insulation resistance	Not less than 1,000MΩ/DC500V
6. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.
7. Resistance between Lead (at lead is 1m)	Not more than 100mΩ

Relation of current & Max. operation temp.

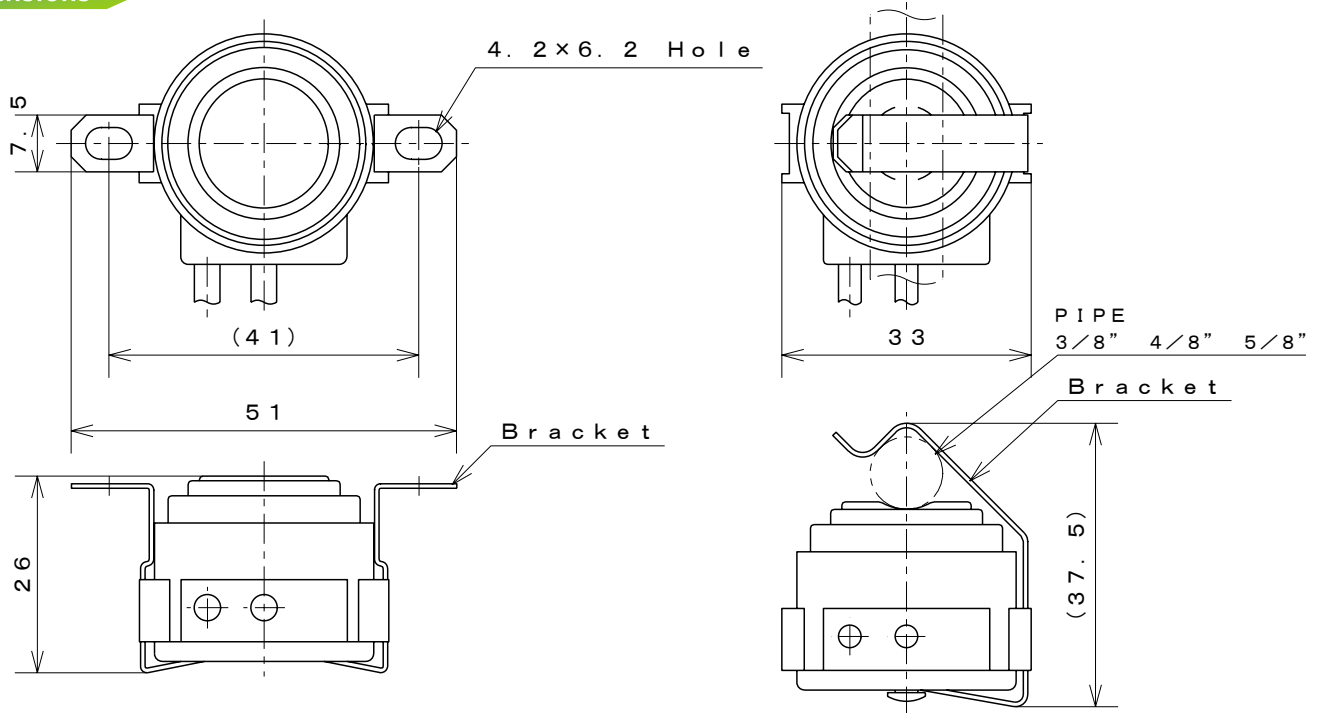




# 3/4" Disc Type Thermostat Water-proof Type Automatic Reset

## Type 46

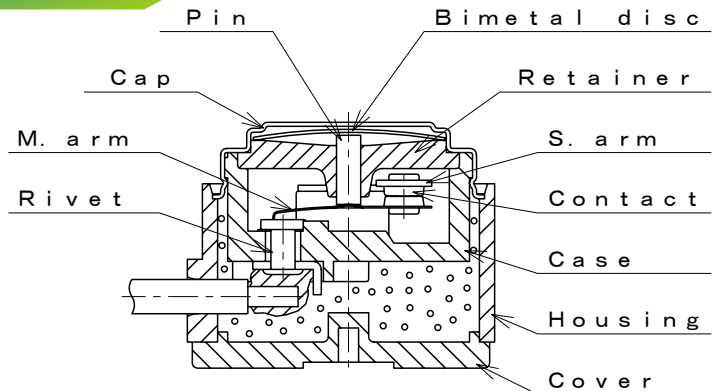
### Dimensions



### Materials of parts

Part	Material
Cap	Copper Stainless steel
Case	Phenolic resin
Housing	Polycarbonate
Bracket	Stainless steel
Fulling	Polyurethane
Leads	PVC
Contacts	Silver-Nickel alloy

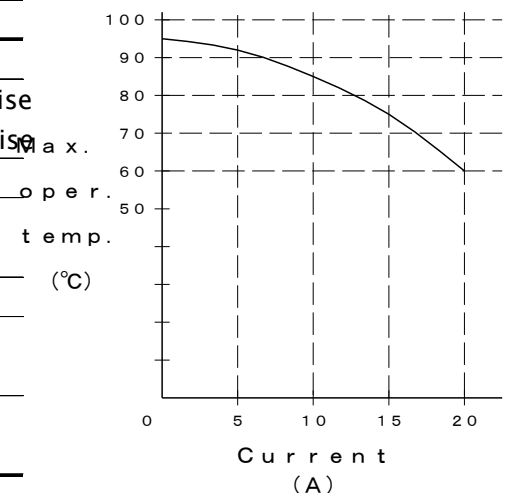
### Structure



### Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	L : Contacts open on temperature rise F : Contacts close on temperature rise
3. Electrical rating	AC125V/20A AC250V/15A
4. Calibration method	Hot & cold air or liquid circulation system
5. Insulation resistance	Not less than 1,000MΩ/DC500V
6. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.
7. Resistance between Lead (at lead is 1m)	Not more than 100mΩ

### Relation of current & Max. operation temp.

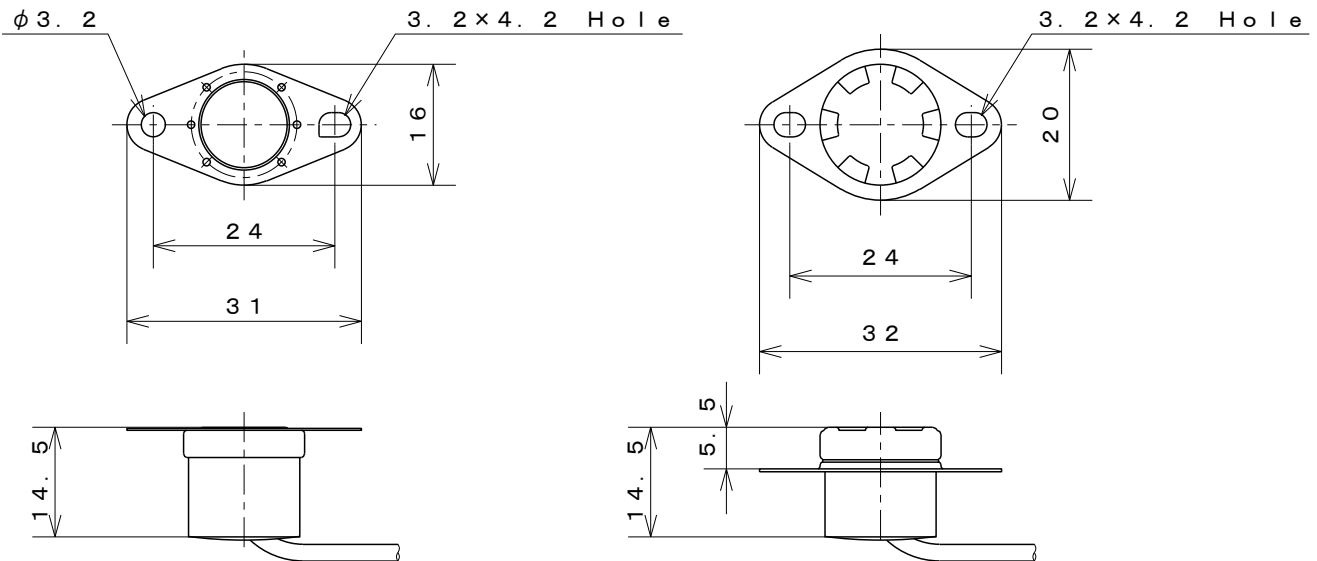




1/2" Disc Type Thermostat  
 Splash-proof Type Automatic Reset

Type **60EN**

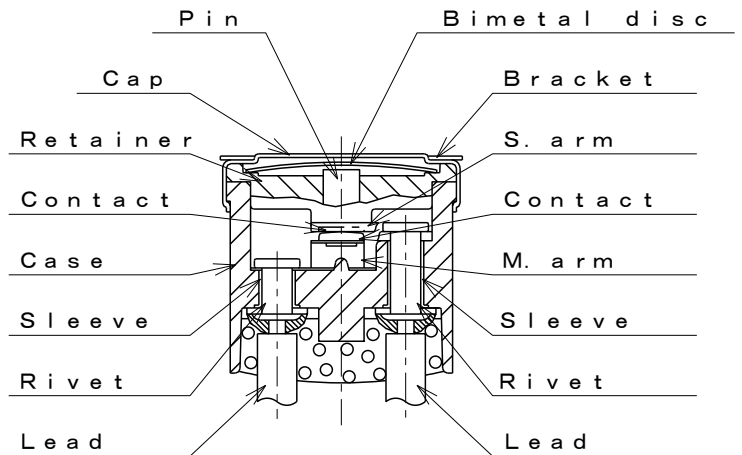
Dimensions



Materials of parts

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
Spring	Beryllium Copper alloy
Leads	PVC etc
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	AC125V/15A AC250V/10A (at 1.25mm <sup>2</sup> lead wire) 1,000 cycles
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 80°C (100°C)
6. Insulation resistance	1,000MΩ or more / DC500V
7. Dielectric strength	AC1,500V/1min. or AC1,800V/1sec.

Standard

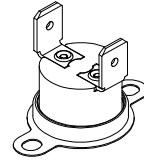




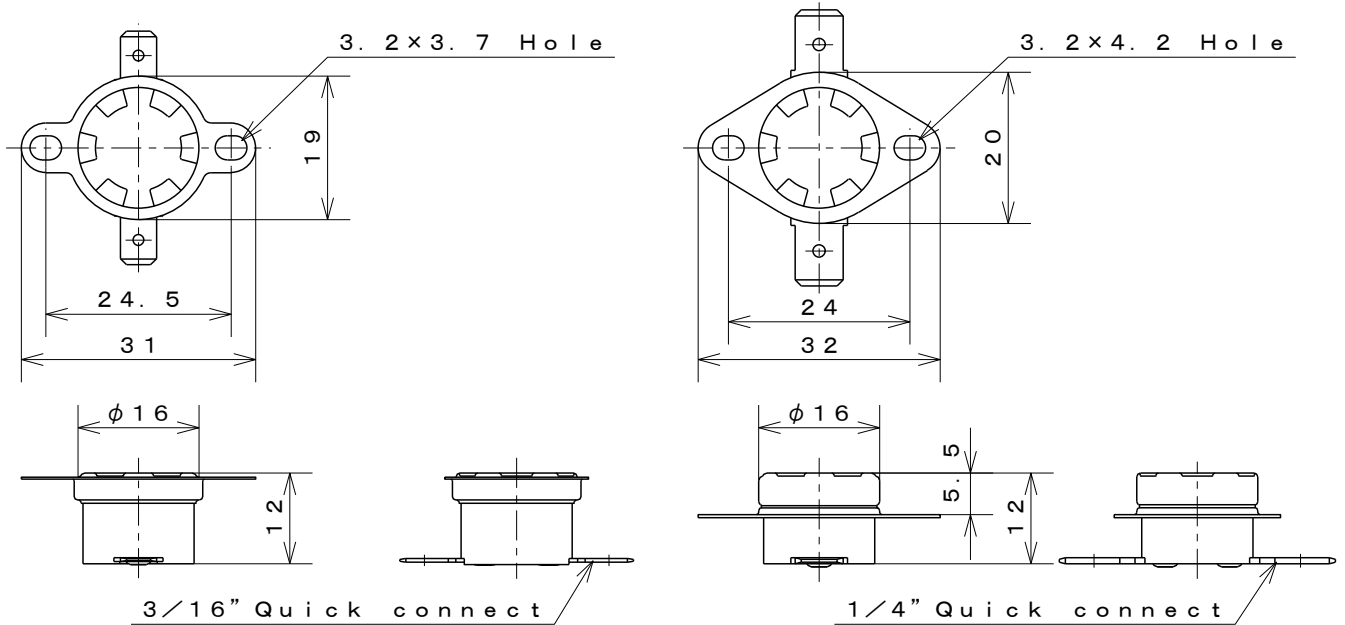


Single Operation Device  
Very High Temp. Type

Type **51N**



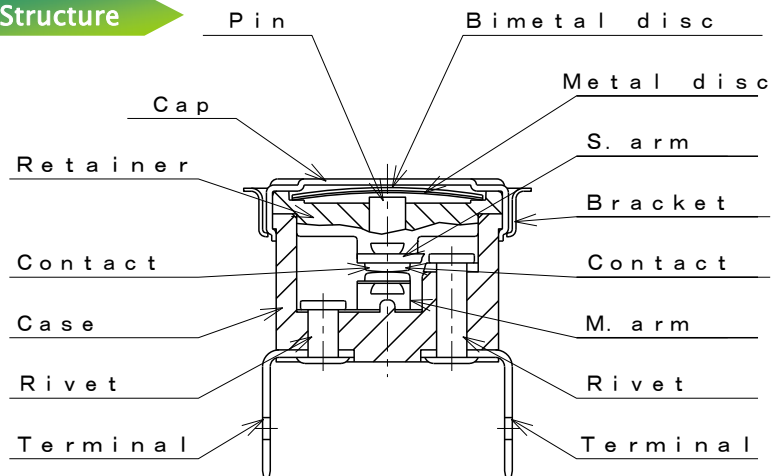
**Dimensions**



**Materials of parts**

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Brass, Steel
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

**Structure**



**Specification**

Item	Specification
1. Basic features	SPST Single Operation Device
2. Operation	A : Contacts open on temperature rise
3. Electrical rating	AC250V/16A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 270°C No Resetting
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

**Standard**

UL 60730-1A, -2-9 File No.E201152 C-UR(CAN/CSA-E730-1, -2-9)  
DIN EN 60730-1, -2-9 VDE File No.40022774



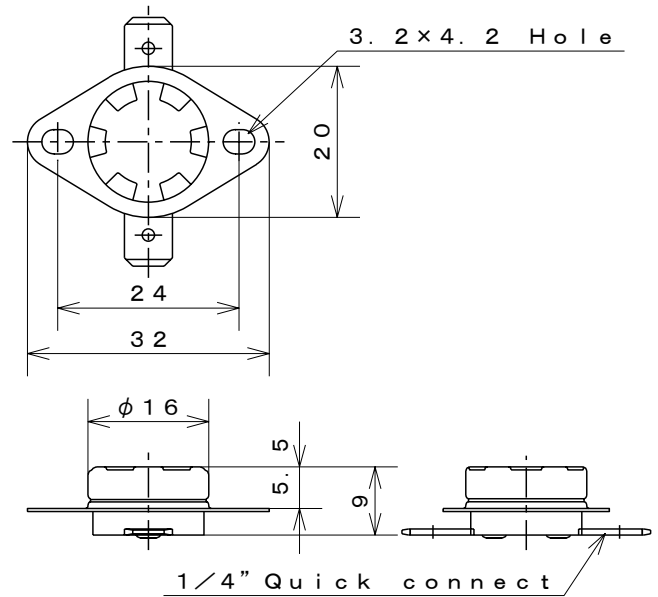
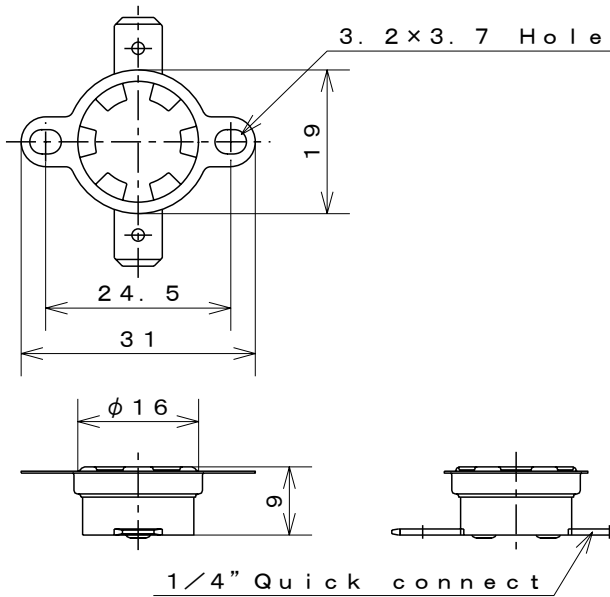


Single Operation Device  
Low Profile

Type **80N**

UL·CSA·VDE  
Recognized

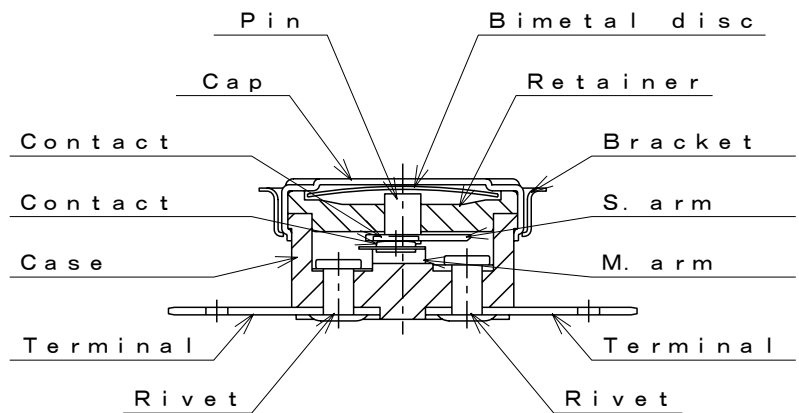
**Dimensions**



**Materials of parts**

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Brass, Steel
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

**Structure**



**Specification**

Item	Specification
1. Basic features	SPST Single Operation Device
2. Operation	A : Contacts open on temperature rise
3. Electrical rating	AC250V/16A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 200°C Resetting Temp. less than -35°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

**Standard**

UL 873	UL File	No. E43273
CSA CAN/CSA-E730-1, -2-9	CSA Report	No. LR67165, LR67166
DIN EN 60730-1, -2-9	VDE Licence	No. 40012255, 40004144

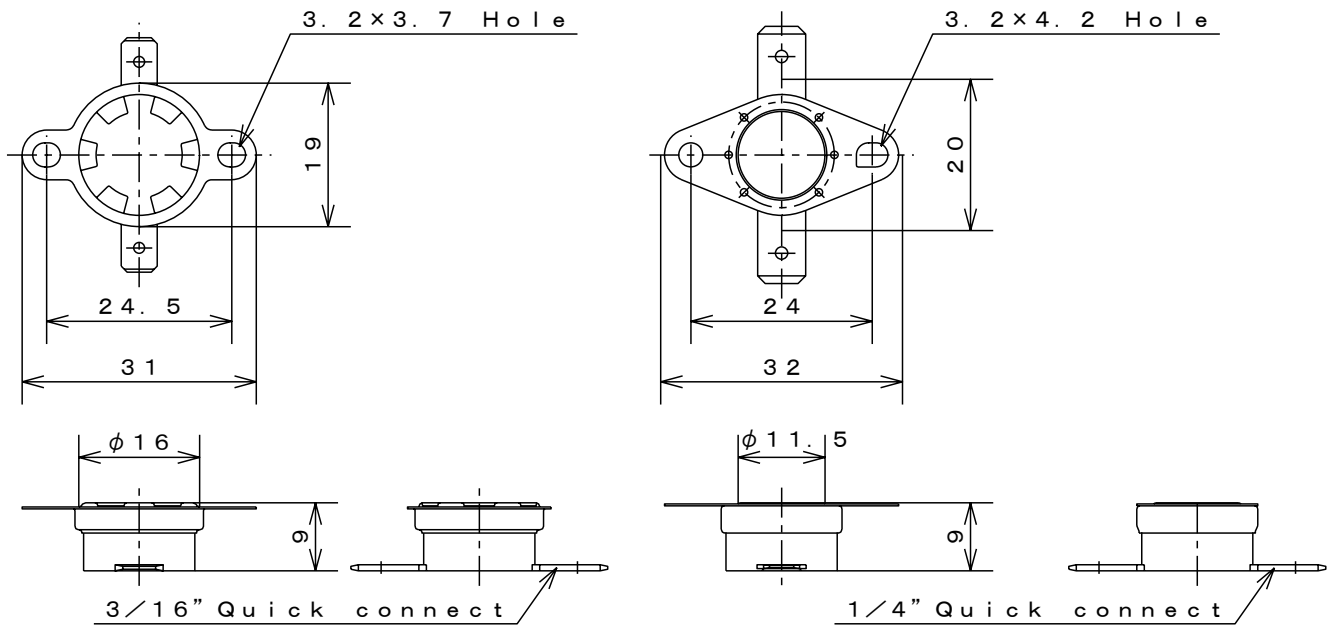


Single Operation Device  
Low Profile

Type **81ES**

UL·CSA·VDE  
Recognized

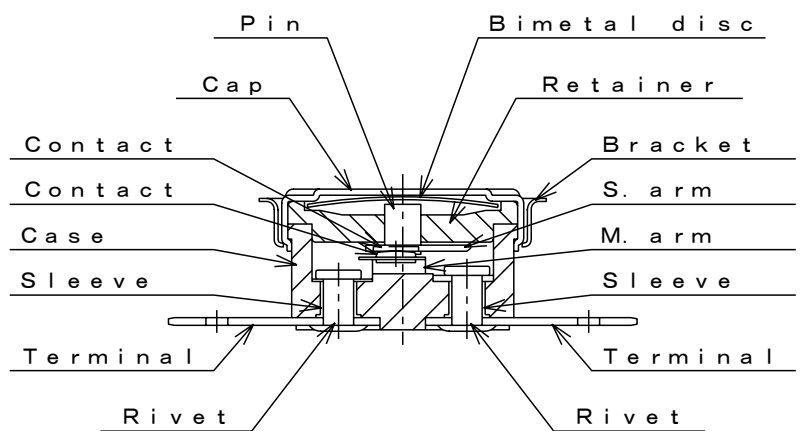
**Dimensions**



**Materials of parts**

Part	Material
Cap	Aluminum Copper Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

**Structure**



**Specification**

Item	Specification
1. Basic features	SPST Single Operation Device
2. Operation	A : Contacts open on temperature rise
3. Electrical rating	AC250V/10A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C Resetting Temp. less than -35°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

**Standard**

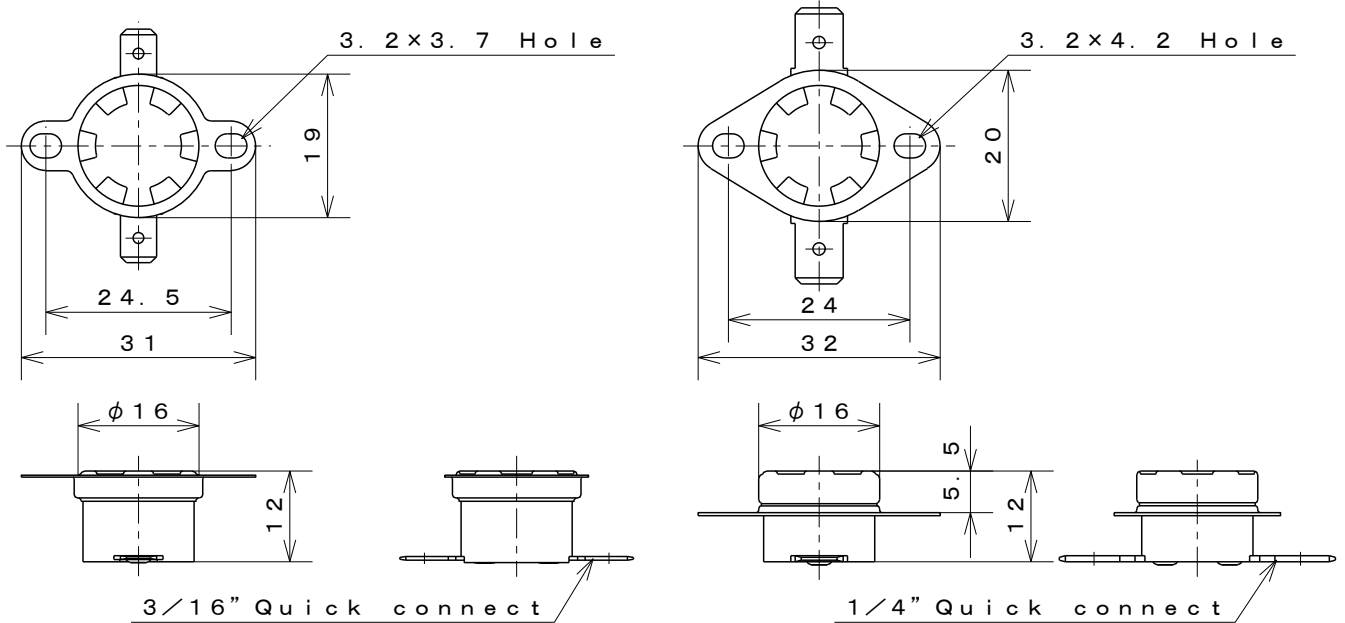
UL 8730-1, -2-9	UL File No. E201152
CSA CAN/CSA-E730-1, -2-9	CSA Report No. LR67165, LR67166
DIN EN 60730-1, -2-9	VDE Licence No. 40012255, 40004144



Single Operation Device  
High Temp. Type

Type **82N**

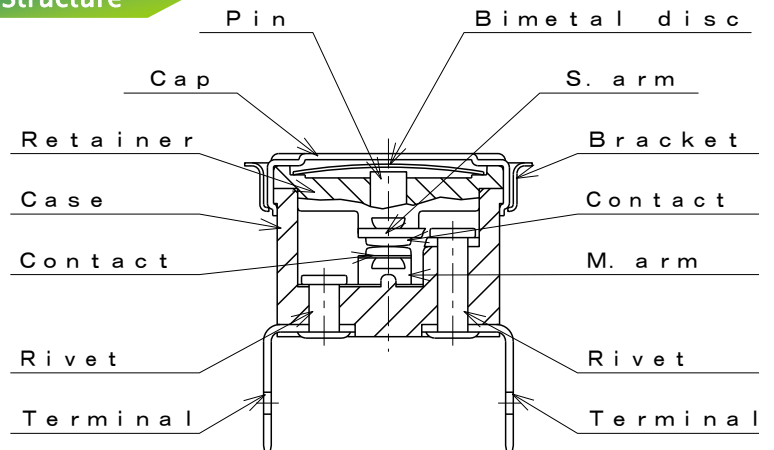
Dimensions



Materials of parts

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Ceramic
M.arm	Beryllium Copper alloy
Terminals	Brass, Steel
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

Structure



Specification

Item	Specification
1. Basic features	SPST Single Operation Device
2. Operation	A : Contacts open on temperature rise
3. Electrical rating	AC250V/16A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 270°C Resetting Temp. less than -35°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1 sec.

Standard

UL 60730-1A, -2-9 File No.E201152 C-UR(CAN/CSA-E730-1, -2-9)  
DIN EN 60730-1, -2-9 VDE File No.40022774

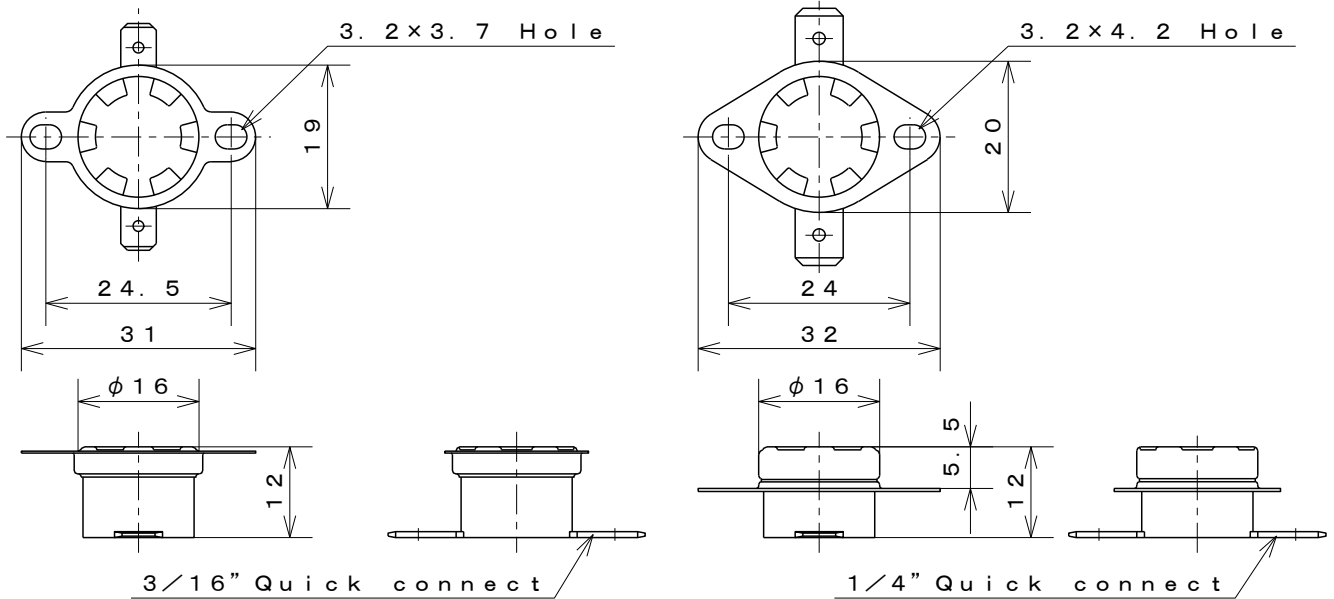




# Single Operation Device

# Type 83EN

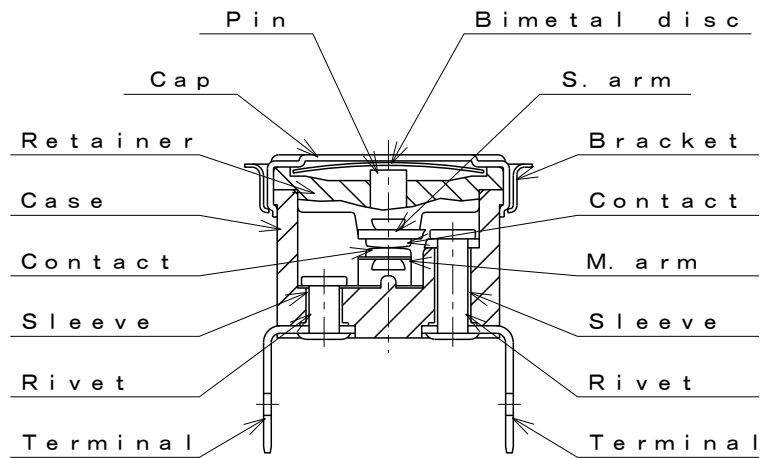
## Dimensions



## Materials of parts

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

## Structure



## Specification

Item	Specification
1. Basic features	SPST Single Operation Device
2. Operation	A : Contacts open on temperature rise
3. Electrical rating	AC250V/16A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C Resetting Temp. less than -35°C
6. Insulation resistance	Not less than 1,000M $\Omega$ /DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

## Standard

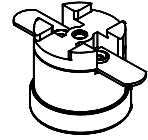
UL 60730-1A, -2-9 File No.E201152 C-UR(CAN/CSA-E730-1, -2-9)  
 DIN EN 60730-1, -2-9 VDE File No.40022774



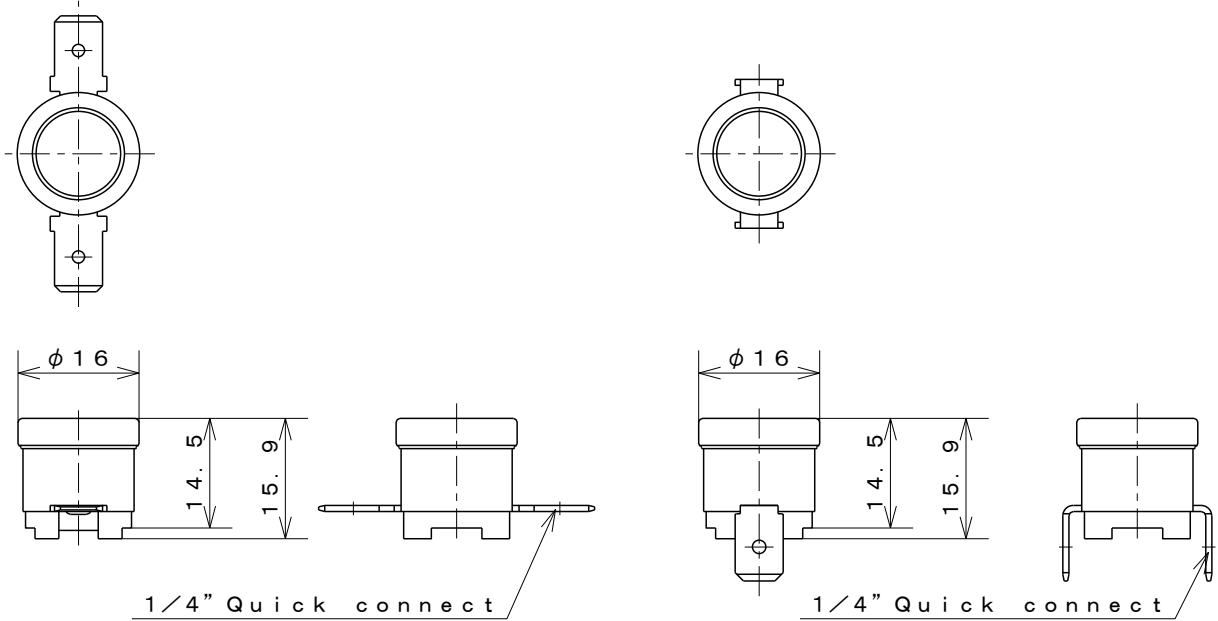


Single Operation Device  
Very High Temp. Type

Type **87N**



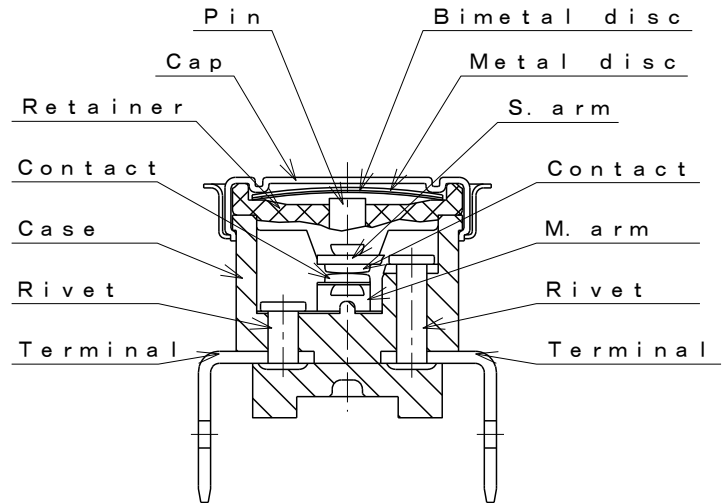
**Dimensions**



**Materials of parts**

Part	Material
Cap	Aluminum
	Copper
	Stainless steel
Case	Ceramic
M.arm	Beryllium alloy
Terminals	Brass, Steel
Bracket	Stainless steel
Contacts	Silver-Nickel alloy

**Structure**



**Specification**

Item	Specification
1. Basic features	SPST Single Operation Device
2. Operation	A : Contacts open on temperature rise
3. Electrical rating	AC250V/16A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 270°C Non Resetting
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

**Standard**

UL 60730-1A, -2-9 File No.E201152 C-UR(CAN/CSA-E730-1, -2-9)  
DIN EN 60730-1, -2-9 VDE File No.40022774

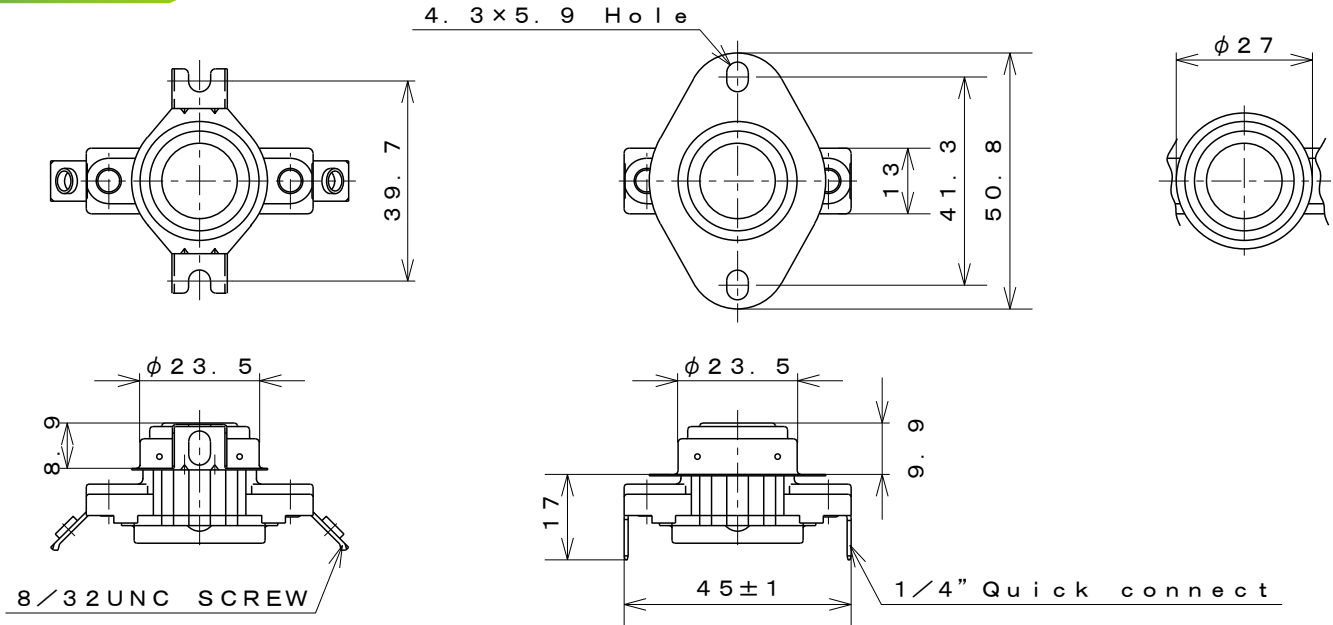




3/4" Disc Type Thermostat  
Automatic Reset

Type **43** serie

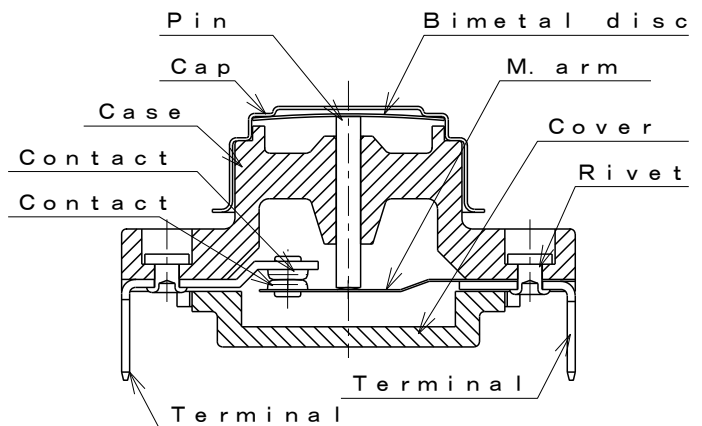
Dimensions



Materials of parts

Part	Material
Cap	Stainless steel
Case, Cover	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Rivets	Steel
Contacts	Silver-Nickel alloy

Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	L : Contacts open on temperature rise F : Contacts close on temperature rise
3. Electrical rating	UL, C-UR : AC250V/25A, 45A AC480V/13A VDE : AC250V/25A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC2,000V/2sec. (AC250V) AC3,600V/2sec. (AC480V)

Standard

UL 60730-1A, -2-9 File No.E201152 C-UR(CAN/CSA-E60730-1, -2-9)  
VDE 60730-1, -2-9 File No. 40016397

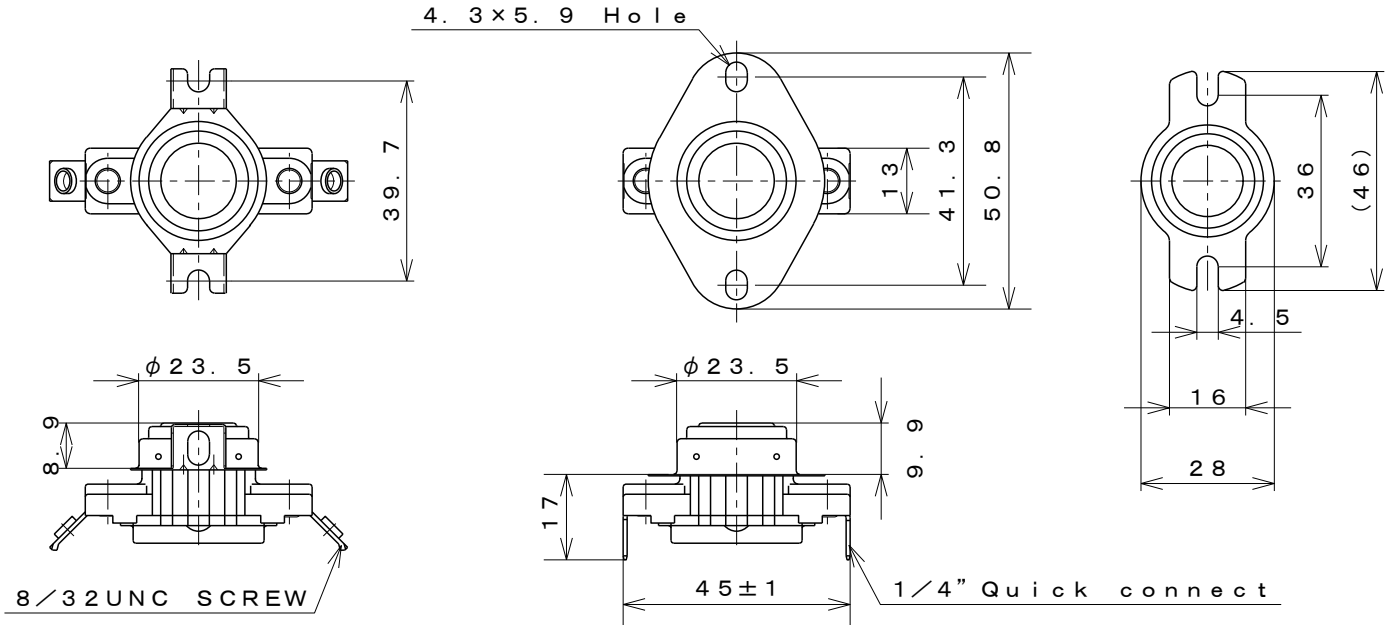




3/4" Disc Type Thermostat  
Double Action (Auto/S.O.D)

Type **43D 43DL**

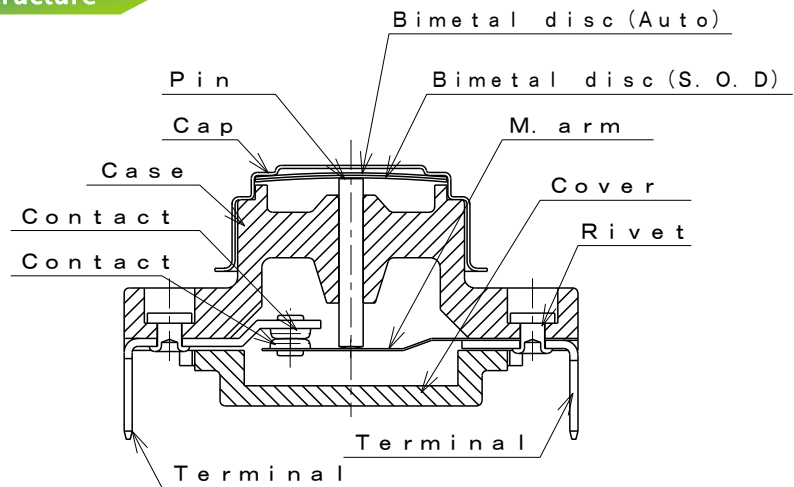
Dimensions



Materials of parts

Part	Material
Cap	Stainless steel
Case, Cover	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Rivets	Steel
Contacts	Silver-Nickel alloy 43D ( $\phi 4$ ) 43DL ( $\phi 5$ )

Structure



Specification

Item	Specification
1. Operation	L : Contacts open on temperature rise
2. Electrical rating	AC250V/25A, AC250V/45A 6,000 cycles (Auto), 1 cycle (S.O.D)
3. Calibration method	Hot & cold air circulation system
4. Temperature rating	Operating temperature Max. 150°C
5. Insulation resistance	Not less than 1,000M $\Omega$ /DC500V
6. Dielectric strength	Not less than AC2,000V/2sec.

Standard

VDE 60730-1, -2-9 (request approval)



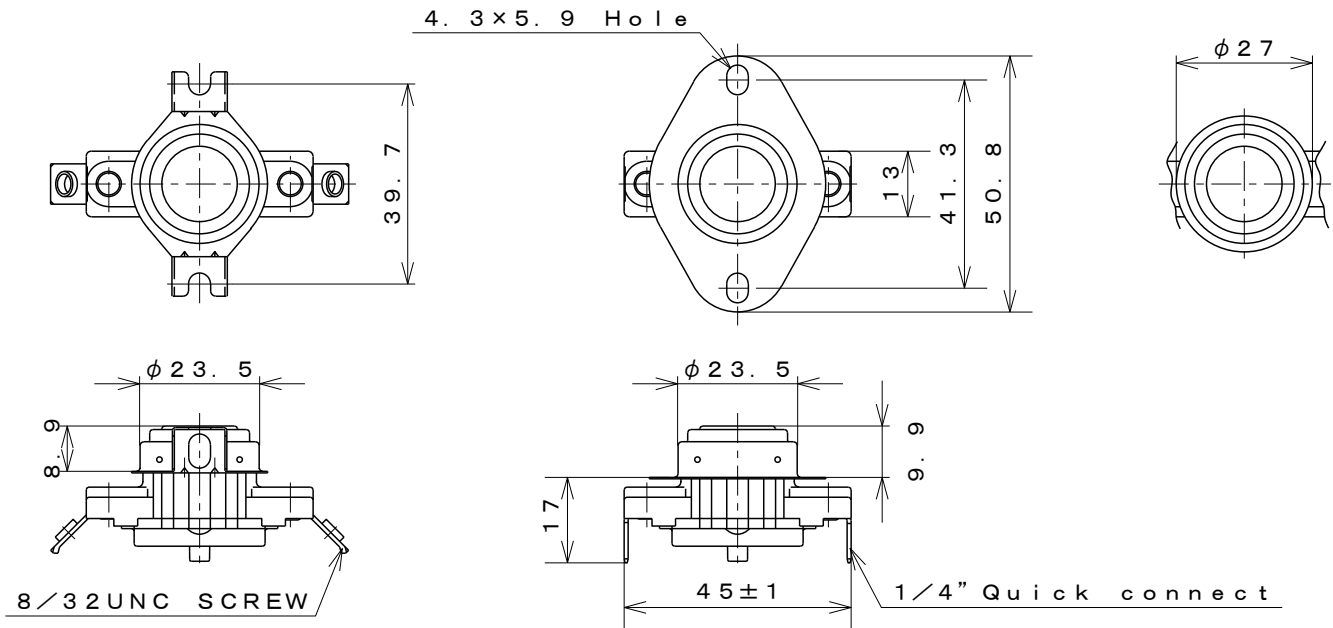




# 3/4" Disc Type Thermostat Manual Reset

## Type 43M serie

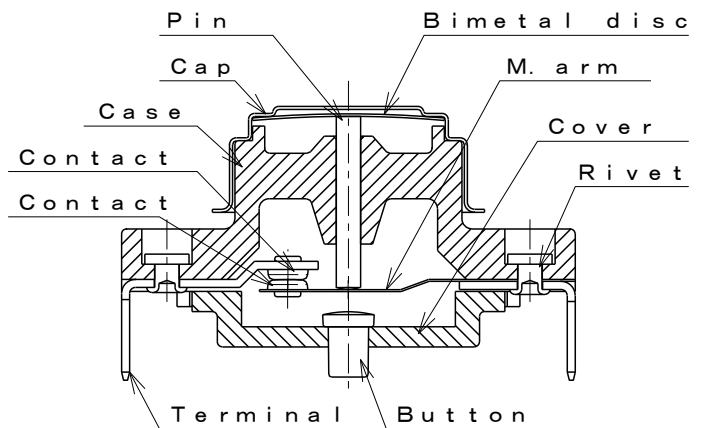
### Dimensions



### Materials of parts

Part	Material
Cap	Stainless steel
Case, Cover	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Rivets	Steel
Contacts	Silver-Nickel alloy
Button	PPS

### Structure



### Specification

Item	Specification
1. Basic features	SPST Manual reset
2. Operation	L : Contacts open on temperature rise
3. Electrical rating	AC250V/25A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC2,000V/2sec.

### Standard

UL 60730-1A, -2-9 File No.E201152 C-UR(CAN/CSA-E60730-1, -2-9)  
MITI (JET) J-174

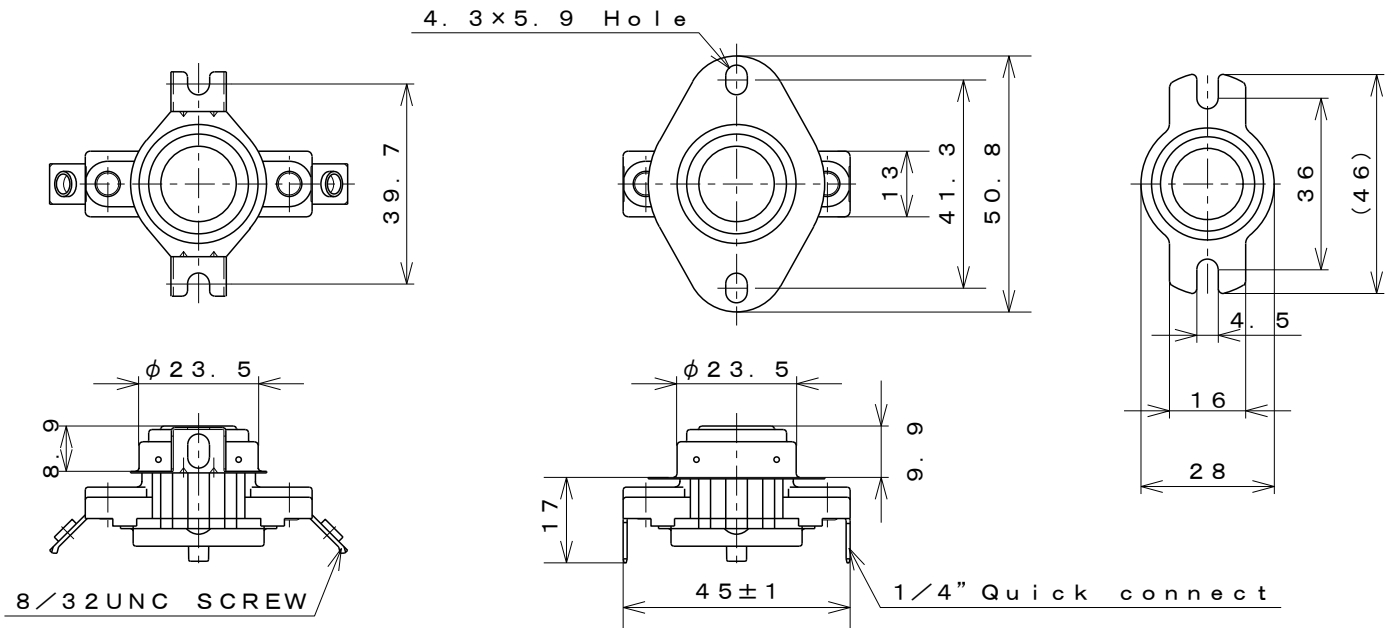




3/4" Disc Type Thermostat  
Double Action (Auto/Manual)

Type **43MD 43MDL**

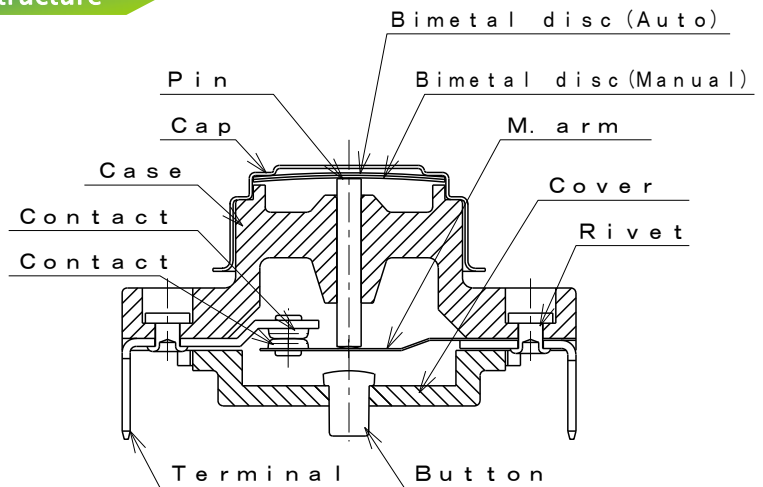
Dimensions



Materials of parts

Part	Material
Cap	Stainless steel
Case, Cover	Phenolic resin
M.arm	Beryllium Copper alloy
Terminals	Brass
Rivets	Steel
Contacts	Silver-Nickel alloy 43MD ( $\phi 4$ ) 43MDL ( $\phi 5$ )
Button	PPS

Structure



Specification

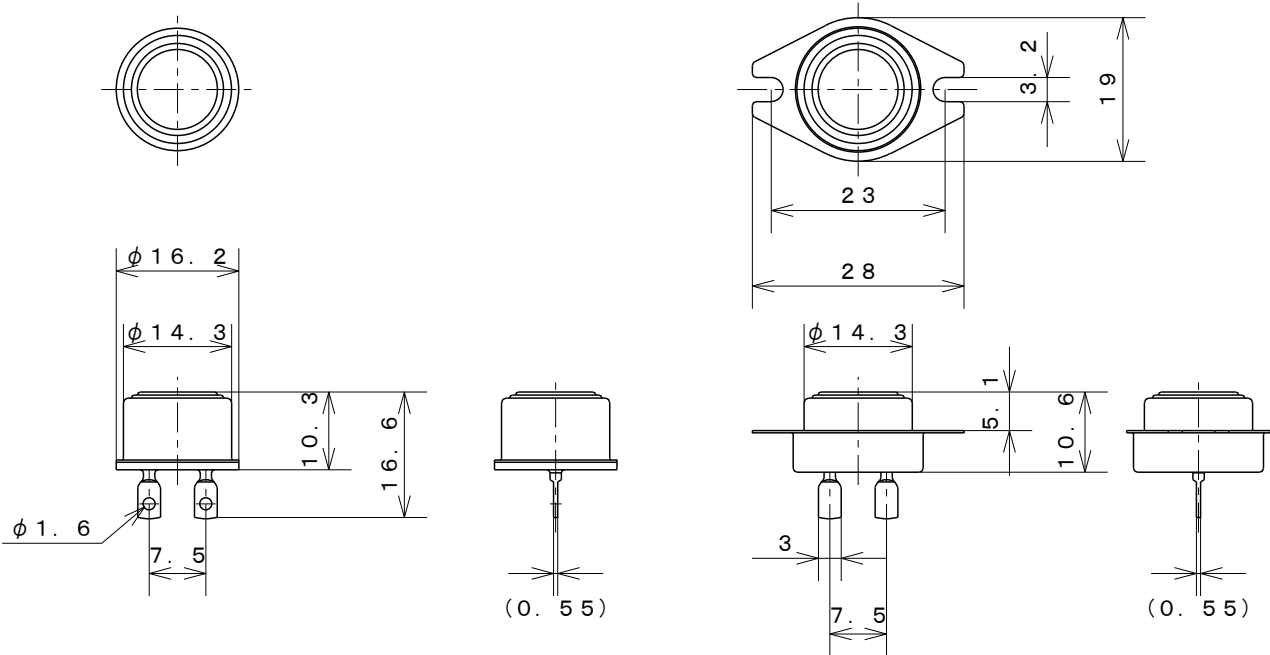
Item	Specification
1. Basic features	SPST Manual reset
2. Operation	L : Contacts open on temperature rise
3. Electrical rating	AC250V/25A, AC250V/45A 100 cycles (Auto), 100 cycles (Manual)
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 150°C
6. Insulation resistance	Not less than 1,000M $\Omega$ /DC500V
7. Dielectric strength	Not less than AC2,000V/2sec.

Standard

VDE 60730-1, -2-9 (request approval)



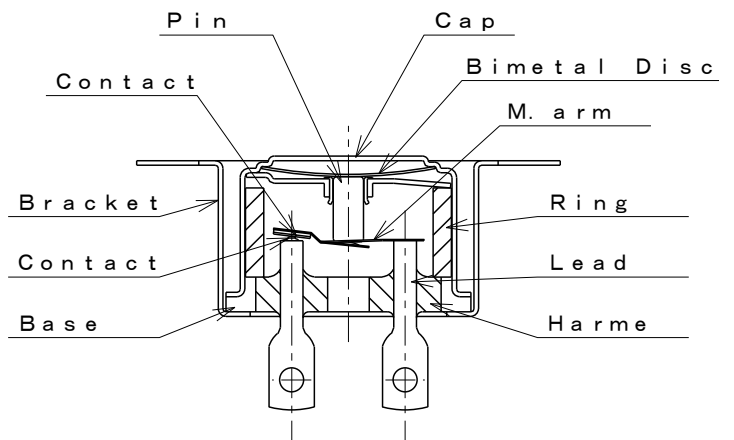
**Dimensions**



**Materials of parts**

Part	Material
Cap	Stainless steel
Base	Steel
M.arm	Nickel alloy (63HP) Copper alloy (63RP)
Leads	Steel + Copper alloy
Bracket	Stainless steel

**Structure**



**Specification**

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	DC12V/500mA DC42V/200mA AC250V/200mA
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 200°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1 sec.
8. Resistance between Leads	Not less than 30mΩ (63HP) · 10mΩ (63RP)

**Standard**

CMJ (JET) J-151

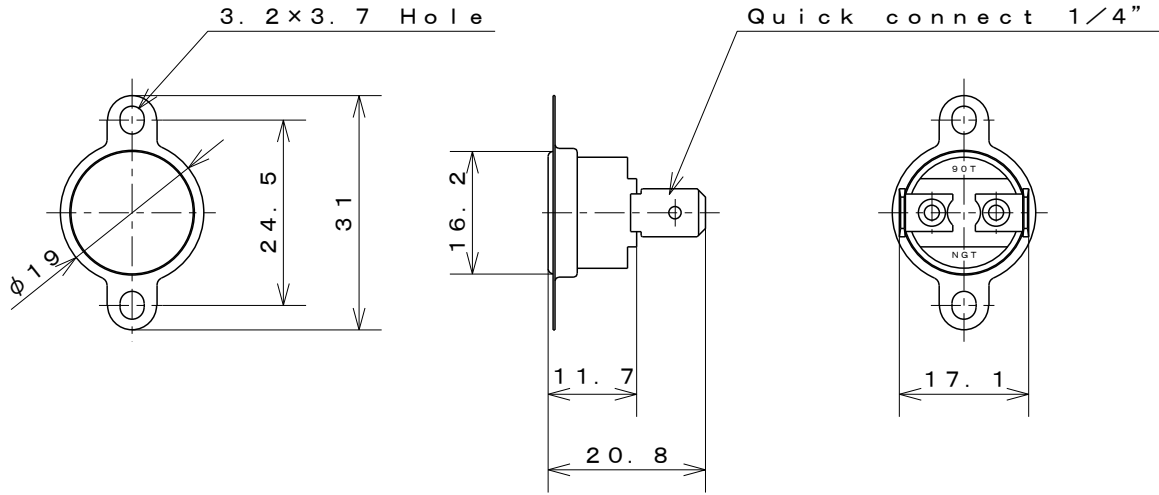




# 1/2" Thermistor Sensor

# Type 90T

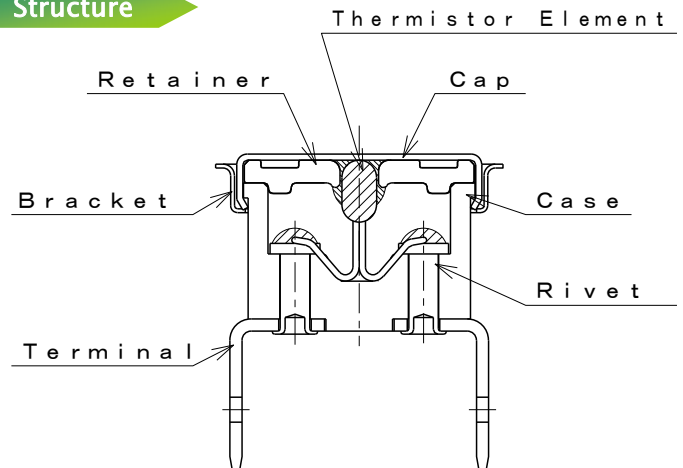
## Dimensions



## Materials of parts

Part	Material	Type
Sensing-cap	Aluminum	Surface-mounting
Bracket	Stainless steel	
Retainer	Aluminum	
Element	—	Hermetic type
Case	Polyester	
Rivet	Cu, Ni Alloy	
Terminals	Plated Brass	Quick-connect 1/4" 3/16"

## Structure



## Specification

Item	Specification
Temperature range	0~150°C (We can manage to be able to use it below 0°C if you like to)
Time-constant (63.2%)	With 20 seconds (surface of the heated plate)
Insulating resistance	Over 1,000M $\Omega$ by 500V DC500V megger
Dielectric strength	AC1,200V $\times$ one second (leakage current 0.5mA)

No.	PB-36	PB-41E	PT-43C	PT-51F
Nominal-resistance (at 25)	2.186 k $\Omega$	5.369 k $\Omega$	0.68 k $\Omega$ (at 100)	49.12 k $\Omega$
B-value (25-85°C)	3420K $\pm$ 68K	3480K $\pm$ 69K	3950K $\pm$ 2% (0-100°C)	3992K $\pm$ 79K

Above are the standard specifications. Please contact us for further information.

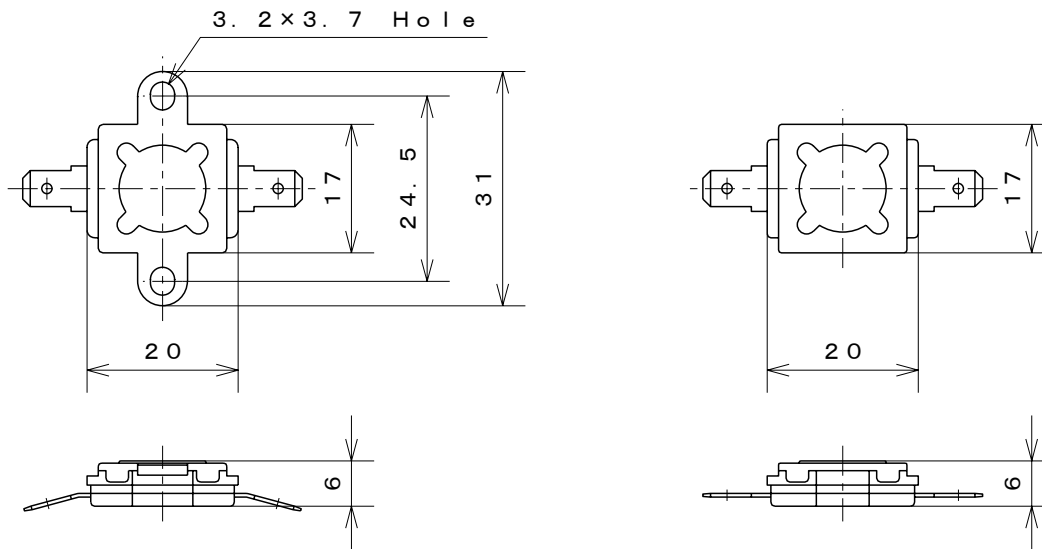




1/2" Disc Type Thermostat  
Thin Type

Type **BT1**

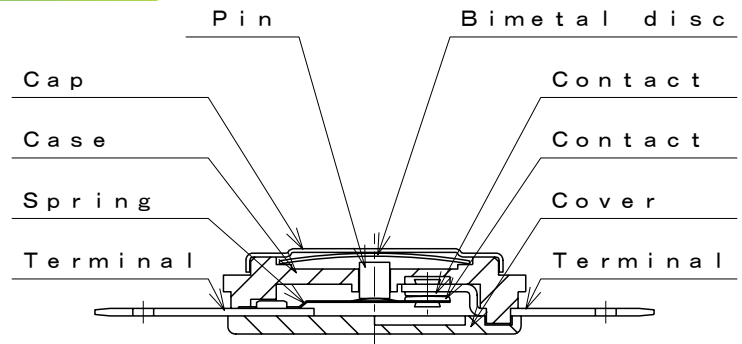
Dimensions



Materials of parts

Part	Material
Cap	Copper
Case, Cover	Phenolic resin
Spring	Beryllium Copper alloy
Contacts	Silver (BT1C) Silver-Nickel alloy (BT1,BT1N)

Structure



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	A : Contacts open on temperature rise B : Contacts close on temperature rise
3. Electrical rating	BT1 : AC250V/6A BT1C : AC250V/6A BT1N : AC250V/10A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 120°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1 min. or AC1,800V/1 sec.

Standard

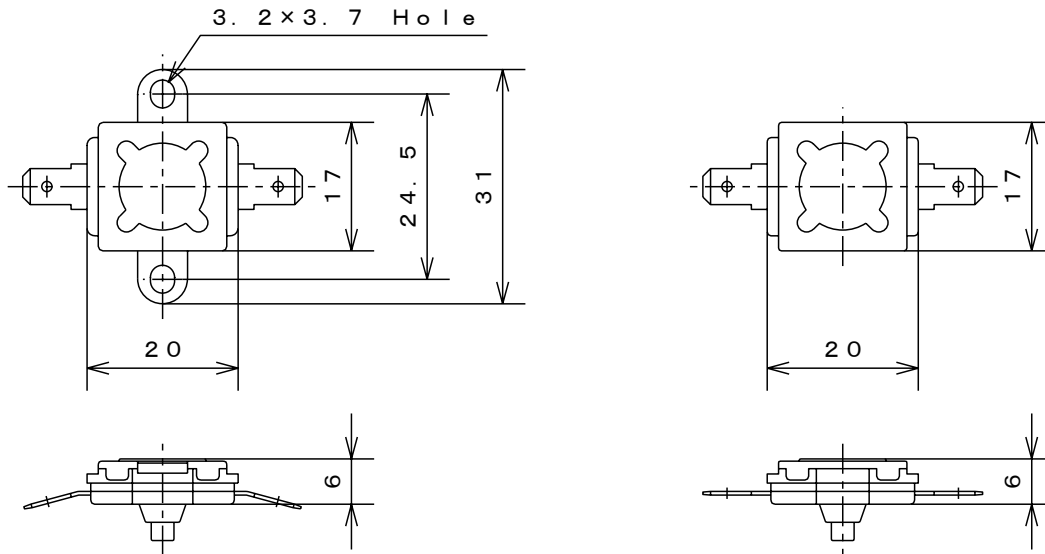
MITI (JET) BT1 :J-50  
BT1N:J-51



1/2" Disc Type Thermostat  
Thin Type Manual Reset

Type **BT2**

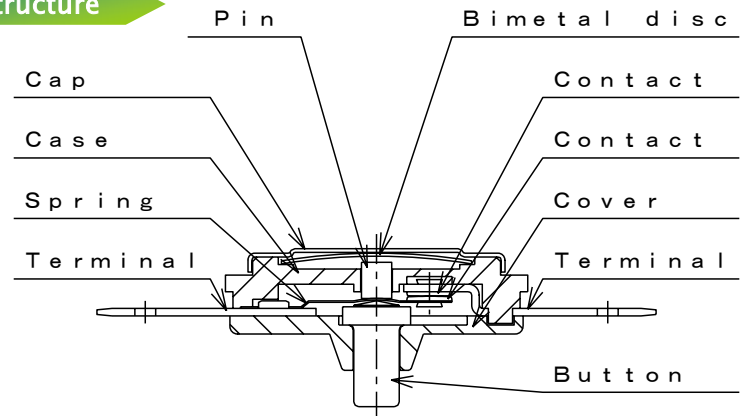
Dimensions



Materials of parts

Part	Material
Cap	Copper
Case, Cover	Phenolic resin
Spring	Beryllium Copper alloy
Contacts	Silver (BT2C) Silver-Nickel alloy (BT2,BT2N)

Structure



Specification

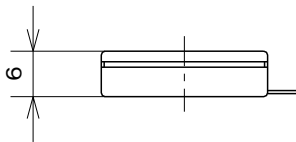
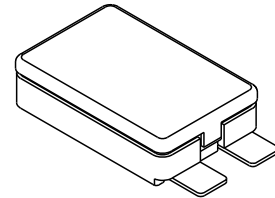
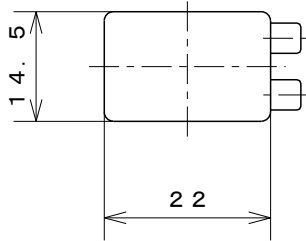
Item	Specification
1. Basic features	SPST Manual reset
2. Operation	A : Contacts open on temperature rise Not automatic reset
3. Electrical rating	BT2 : AC125V/6A BT2C : AC125V/6A BT2N : AC125V/10A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 120°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.



Thin Box Type

Type **MH3**

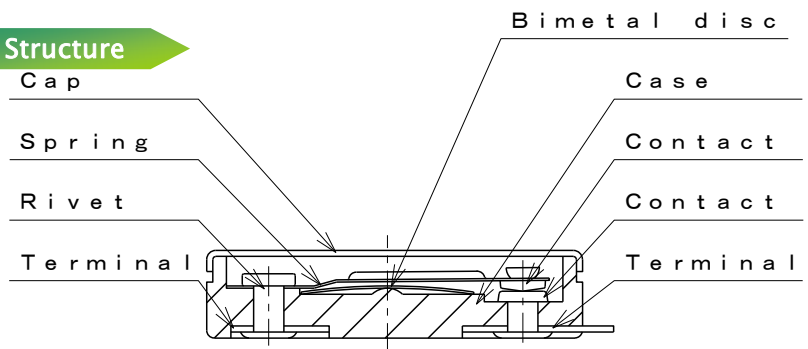
**Dimensions**



**Materials of parts**

Part	Material
Cap	Aluminum
Case	Phenolic resin
Spring	Beryllium Copper alloy
Rivet	Copper
Contacts	Silver
Terminal	Brass

**Structure**



**Specification**

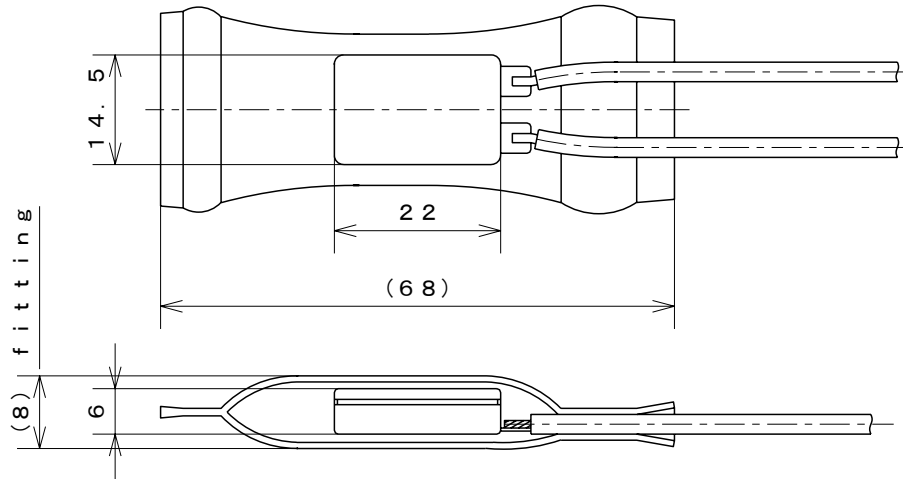
Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	L : Contacts open on temperature rise
3. Electrical rating	<u>AC125V/6A AC250V/3A (Separately, the insulation protection is necessary)</u> DC12V/5A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 70°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V



Sealed by PVC tube  
Water-proof Type

# Type MH3U

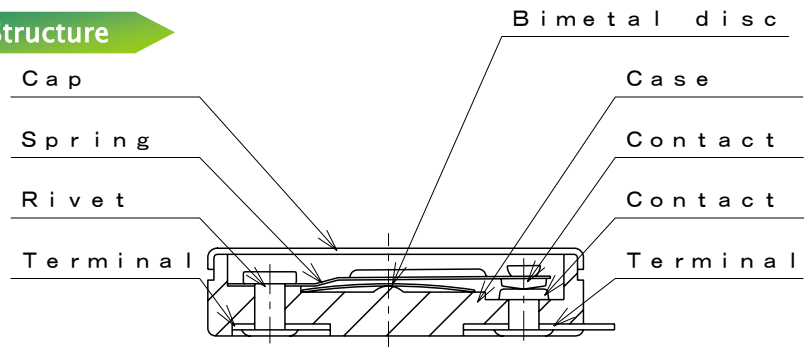
## Dimensions



## Materials of parts

Part	Material
Cap	Aluminum
Case	Phenolic resin
Spring	Beryllium Copper alloy
Leads	PVC AWG No.20
Contacts	Silver

## Structure



## Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	L : Contacts open on temperature rise F : Contacts close on temperature rise
3. Electrical rating	AC125V/6A AC250V/3A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 70°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V
7. Dielectric strength	Not less than AC1,500V/1min. or AC1,800V/1sec.

## Standard

UL 873	UL File	No. E43273	AC125V/3A AC250V/2A
CSA C22.2 No. 24	CSA Report	No. LR67165, LR67166	AC125V/3A AC250V/2A

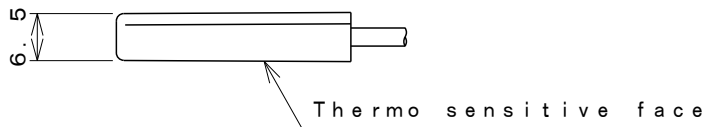
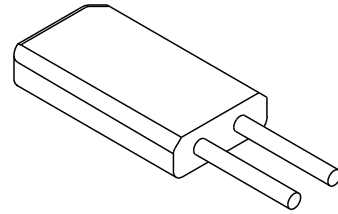
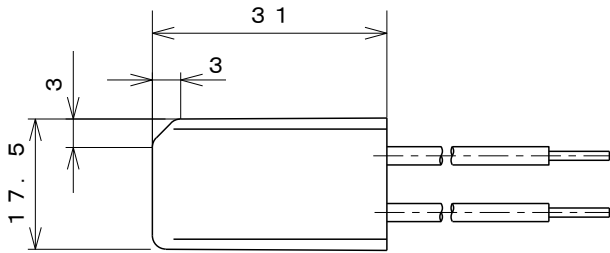




Thin Box  
Water Proof Type

Type **MH4**

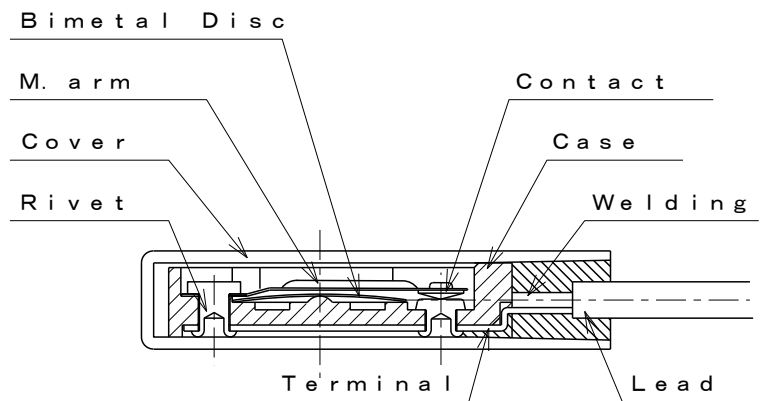
**Dimensions**



**Materials of parts**

Part	Material
Cover	PBT
Case	Phenolic resin
Spring	Beryllium Copper alloy
Contacts	Silver / Silver-Nickel alloy
Rivet	Copper
Terminal	Brass
Leads	PVC

**Structure**



**Specification**

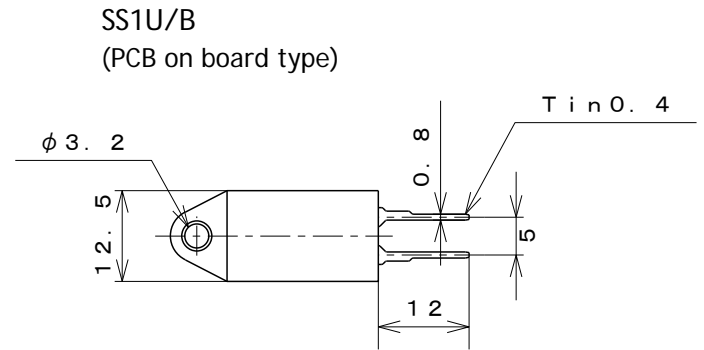
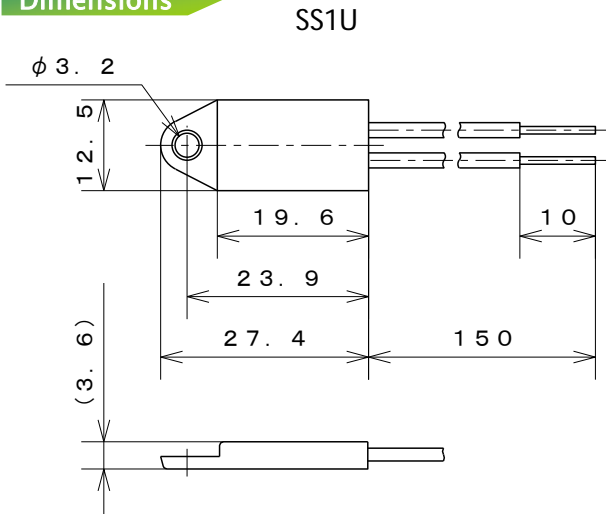
Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	L : Contacts open on temperature rise
3. Electrical rating	AC125V/8A AC250V/4A , DC13.5V/7A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 70°C
6. Insulation resistance	Not less than 1,000MΩ/DC500V



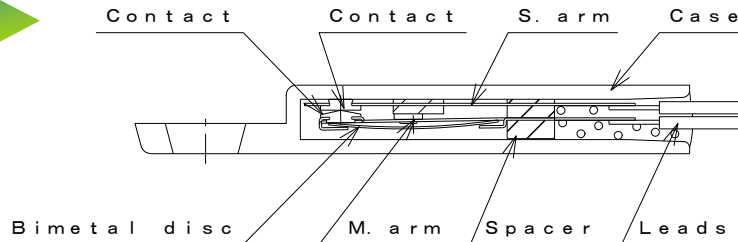
Small & Thin  
Drip-proof Type Automatic Reset  
PCB on board Type

Type **SS1**

Dimensions



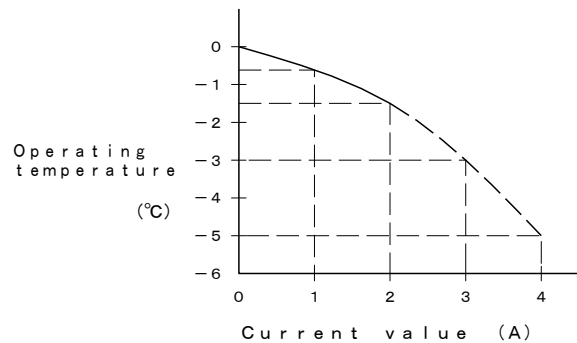
Structure



Materials of parts

Part	Material
Case	Polybutylene terephthalate
M. arm	Beryllium copper
Contacts	Silver-Nickel alloy
Leads	PVC 0.3mm <sup>2</sup>
Terminals	Tin plated brass

Drift of operating temperature by current value when contact close



Specification

Item	Specification
1. Basic features	SPST Automatic reset
2. Operation	L : Contacts open on temperature rise F : Contacts close on temperature rise
3. Electrical rating	AC250V/3A
4. Calibration method	Hot & cold air circulation system
5. Temperature rating	Operating temperature Max. 105°C Differential: 8~15°C
6. Insulation resistance	1,000MΩ or more / DC500V
7. Dielectric strength	AC1,500V/1min. or AC1,800V/1sec.

Standard

UL 60730-1A, -2-9 File No. E201152 C-UR(CAN/CSA-E60730-1, -2-9)

