

# Thermostats - Commercial



Commercial thermostats include products for use in a wide array of small and major appliances, automotive applications, office copy machines, heat and smoke detectors and HVAC equipment. These snap-action thermostats include automatic or manual reset options, phenolic or ceramic housings, and a variety of mounting brackets and terminal options.

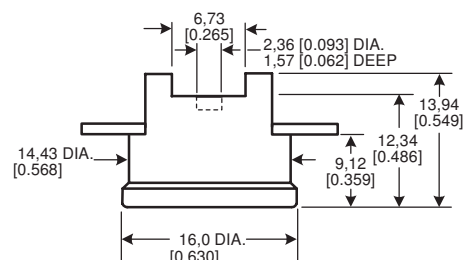
NOTE: The products in this section do not follow the "how to use this catalogue" instructions provided in the catalogue introduction. Specific reference numbers are not given due to their custom nature. Please contact your local Honeywell sales office for ordering information.

## 2450R/2450HR/2455R Series Phenolic Automatic Reset Thermostats

A temperature-sensitive bimetal disc, electrically isolated from the switch, actuates the normally closed contacts. The contacts open when the surface or ambient temperatures increase to the operating snap point of the calibrated disc. Response to temperature changes is extremely rapid due to the inherently low mass of the disc and the small size of the product. These products are factory calibrated to the customer's specification.

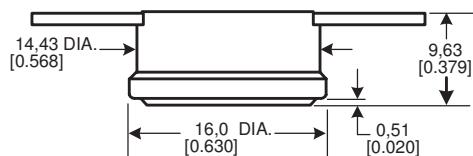
Reset type:	Automatic
Amperage capacity:	15 A resistive max.
Housing material:	Phenolic
Operating temperature range:	0 °C to 150 °C [32 °F to 302 °F]
Environmental exposure range:	0 °C to 177 °C [32 °F to 350 °F]

### 2450HR



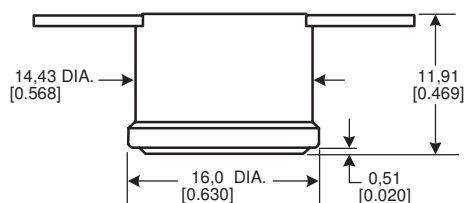
**SERIES NAME**  
2450HR Phenolic Automatic Reset Thermostat

### 2450R



**SERIES NAME**  
2450R Phenolic Automatic Reset Thermostat

### 2455R



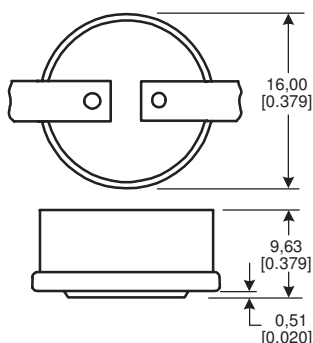
**SERIES NAME**  
2455R Phenolic Automatic Reset Thermostat

## 2450RC/2450RCH/2455RC Series Ceramic Automatic Reset Thermostats

A temperature-sensitive bimetal disc, electrically isolated from the switch, actuates the normally closed contacts. The contacts open when the surface or ambient temperatures increase to the operating snap point of the calibrated disc. Response to temperature changes is extremely rapid due to the inherently low mass of the disc and the small size of the product.

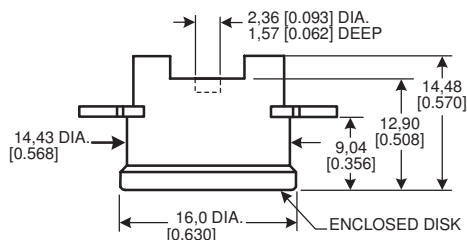
<b>Reset type:</b>	Automatic
<b>Amperage capacity:</b>	15 A resistive max.
<b>Housing material:</b>	Ceramic
<b>Operating temperature range:</b>	0 °C to 260 °C [32 °F to 500 °F]
<b>Environmental exposure range:</b>	-20 °C to 287 °C [0 °F to 550 °F]

### 2450RC



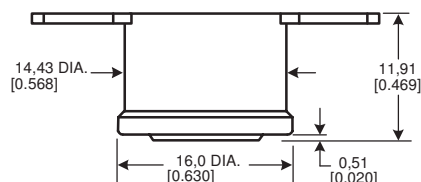
**SERIES NAME**  
2450RC Ceramic Automatic Reset Thermostat

### 2450RCH



**SERIES NAME**  
2450RCH Ceramic Automatic Reset Thermostat

### 2455RC



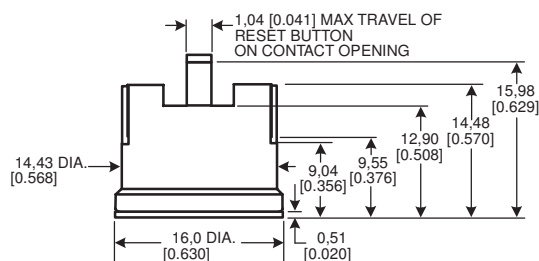
**SERIES NAME**  
2455RC Ceramic Automatic Reset Thermostat

## 2450CM/2455RM Series Ceramic and Phenolic Manual Reset Thermostats

A temperature-sensitive bimetal disc, electrically isolated from the switch, actuates the normally closed contacts. The contacts open when the surface or ambient temperatures increase to the operating snap point of the calibrated disc. The circuit will stay open above room ambient temperature until the manual reset button is pressed. Response to temperature changes is extremely rapid due to the inherently low mass of the disc and the small size of the product.

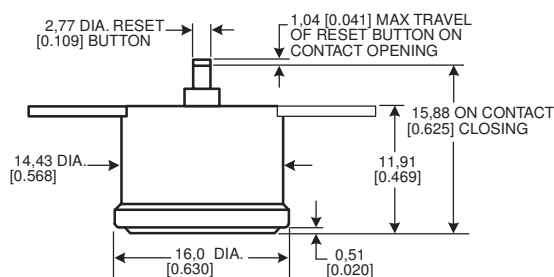
<b>Reset type:</b>	Manual
<b>Amperage capacity:</b>	15 A resistive max.
<b>Housing material:</b>	Ceramic or phenolic
<b>Operating temperature range:</b>	52 °C to 232 °C [125 °F to 450 °F] (ceramic) 52 °C to 150 °C [125 °F to 302 °F] (phenolic)
<b>Environmental exposure range:</b>	10 °C to 260 °C [50 °F to 500 °F] (ceramic) 10 °C to 177 °C [50 °F to 350 °F] (phenolic)

### 2450CM



**SERIES NAME**  
2450CM Ceramic Manual Reset Thermostat

### 2455RM



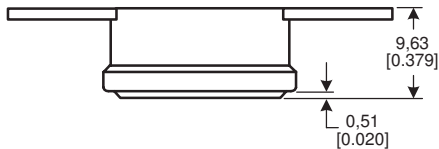
**SERIES NAME**  
2455RM Phenolic Manual Reset Thermostat

## 2450A/2455A Series Heat Detection Thermostats

The gold contacts open or close on a temperature rise of 47 °C to 107 °C [117 °F to 225 °F].

**Reset type:** Automatic  
**Amperage capacity:** 15 A resistive max.  
**Housing material:** Phenolic, epoxy-sealed cap and terminal  
**Operating temperature range:** 47 °C to 107 °C [117 °F to 225 °F]  
**Environmental exposure range:** 0 °C to 150 °C [32 °F to 302 °F]

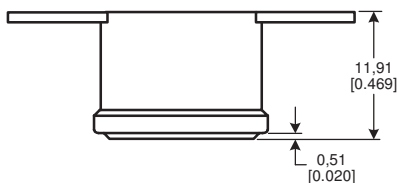
### 2450A



#### SERIES NAME

2450A Heat Detection Thermostat

### 2455A



#### SERIES NAME

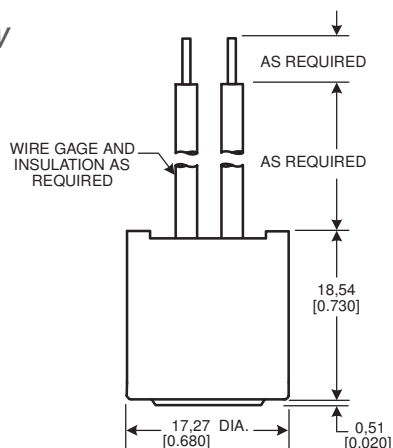
2455A Heat Detection Thermostat

## 2455RBV Series Overmolded Automatic Reset Thermostats

A temperature-sensitive bimetal disc, electrically isolated from the switch, actuates the normally closed contacts. The contacts open when the surface or ambient temperatures increase to the operating snap point of the calibrated disc. Response to temperature changes is extremely rapid due to the inherently low mass of the disc and the small size of the product.

**Reset type:** Automatic  
**Amperage capacity:** 15 A resistive max.  
**Housing material:** Ceramic or phenolic, epoxy overmold  
**Operating temperature range:** -12 °C to 105 °C [10 °F to 221 °F]  
**Environmental exposure range:** -18 °C to 121 °C [0 °F to 250 °F]

### 2455RBV



#### SERIES NAME

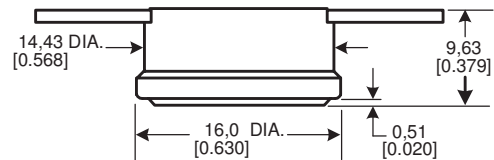
2455RBV Overmolded Automatic Reset Thermostat

## 2450R/2450RCH/2455R/2455RC Series "One-shot" 1/2 in Thermostats

Products are designed for high limit applications where automatic reset is not desired.

**Reset type:** None  
**Amperage capacity:** 15 A resistive max.  
**Housing material:** ceramic or phenolic  
**Operating temperature range:** 52 °C to 260 °C [125 °F to 500 °F] (ceramic)  
 52 °C to 150 °C [125 °F to 302 °F] (phenolic)  
**Environmental exposure range:** 18 °C to 316 °C [0 °F to 600 °F] (ceramic)  
 18 °C to 177 °C [0 °F to 350 °F] (phenolic)

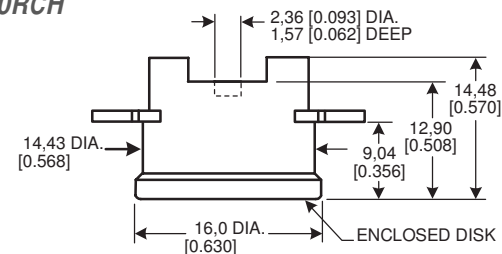
### 2450R



#### SERIES NAME

2450R Phenolic "One-shot" 1/2 in Thermostat

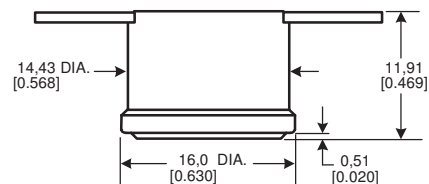
### 2450RCH



#### SERIES NAME

2450RCH Ceramic "One-shot" 1/2 in Thermostat

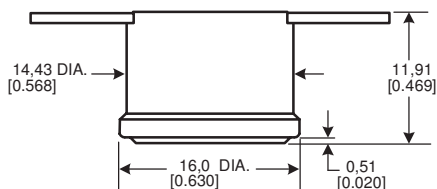
### 2455R



#### SERIES NAME

2455R Phenolic "One-shot" 1/2 in Thermostat

### 2455RC



#### SERIES NAME

2455RC Ceramic "One-shot" 1/2 in Thermostat

## 2450R Series Annular Ring Cap Automatic Reset Thermostats

A temperature-sensitive bimetal disc, electrically isolated from the switch, actuates the normally closed contacts. The contacts open when the surface or ambient temperatures increase to the operating snap point of the calibrated disc. Response to temperature changes is extremely rapid due to the inherently low mass of the disc and the small size of the product.

<b>Reset type:</b>	Automatic
<b>Amperage capacity:</b>	15 A resistive, 12 Vdc
<b>Housing material:</b>	Phenolic, can be partially or totally sealed against water ingress
<b>Operating temperature range:</b>	-10 °C to 55 °C [14 °F to 131 °F]
<b>Environmental exposure range:</b>	-40 °C to 130 °C [-40 °F to 266 °F]
<b>Life Cycle Capability:</b>	300 K at 12 Vdc, 10 A
<b>Low Temperature Differential:</b>	Down to 8 °C [46 °F]
<b>Switch Temperature Tolerance:</b>	±3 °C



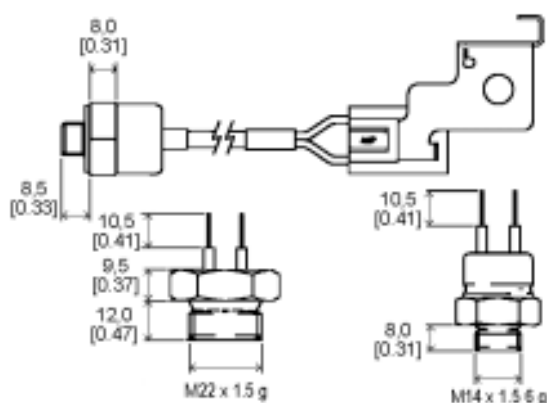
### SERIES NAME

2450R Phenolic Annular Ring Cap Automatic Reset Thermostat

## 2450R/2455R Series Protected Thermostats

A temperature-sensitive bimetal disc, electrically isolated from the switch, actuates the normally closed contacts. The contacts open when the surface or ambient temperatures increase to the operating snap point of the calibrated disc. Basic thermostat is protected from the environment by sealing it in a metal housing or encapsulating it in epoxy.

<b>Reset type:</b>	Automatic
<b>Amperage capacity:</b>	15 A resistive, 12 Vdc
<b>Housing material:</b>	Brass, aluminium, stainless steel and epoxy
<b>Operating temperature range:</b>	15 °C to 130 °C [59 °F to 266 °F]
<b>Environmental exposure range:</b>	-40 °C to 155 °C [-40 °F to 311 °F]



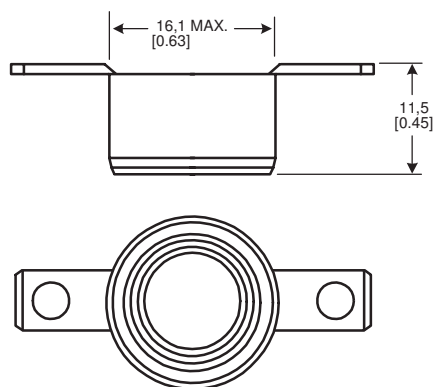
### SERIES NAME

2450R Protected Thermostat  
2455R Protected Thermostat

## 2450R Series Fully Sealed Thermostats

A temperature-sensitive bimetal disc, electrically isolated from the switch, actuates the normally closed contacts. The contacts open when the surface or ambient temperatures increase to the operating snap point of the calibrated disc. Response to temperature changes is extremely rapid due to the inherently low mass of the disc and the small size of the product.

<b>Reset type:</b>	Automatic
<b>Amperage capacity:</b>	15 A resistive, 12 Vdc
<b>Housing material:</b>	Phenolic housing, aluminium cap totally encapsulated in water resistant epoxy
<b>Operating temperature range:</b>	-10 °C to 55 °C [14 °F to 131 °F]
<b>Environmental exposure range:</b>	-40 °C to 130 °C [-40 °F to 266 °F]
<b>Life cycle capability:</b>	300 K at 12 Vdc, 10 A
<b>Low temperature differential:</b>	Down to 8 °C [46 °F]
<b>Switch temperature tolerance:</b>	±3 °C



### SERIES NAME

2450R Fully Sealed Thermostat

- Temperature Sensors
- Thermal Cutoffs
- Thermistors & Probes
- Thermostats
  - > Redi-Temp Subminiature 3600 Series
  - > Redi-Temp Series 3100 SPST Hermetic Series
  - > Redi-Temp 3455 RC 15 AMP High Temp. Series
  - > Bimetal Precision & Commercial Thermostats

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## Bimetal Thermostats



The Honeywell bimetal thermostat product line consists of Single-Pole, Single-Throw (SPST) hermetic and non-hermetic thermostats, including low-silhouette, logic level, auto reset, manual reset, one-shot, and subminiature thermostats and thermal switches. These products are also defined by their ability to reliably maintain precision temperature tolerances or high amperage electrical loads. They provide temperature control and overtemperature protection for the appliance, office automation, industrial, commercial aircraft and medical equipment industries.

Bimetal thermostats are snap-action devices designed to operate in extreme conditions, such as exposure to hazardous substances, dust particles and liquid immersion. Contacts are thermally and electrically isolated. Dust-proof performance is achieved by using a ceramic or phenolic base protected by a metal enclosure. A variety of custom configurations are available which provide environmental protection.

Select a product from one of the following bimetal categories:

- [Precision Thermostats](#)
- [Commercial Thermostats](#)

### Precision Thermostats

➔ Hermetic Thermostats		
Series	Features	Applications
3100	<ul style="list-style-type: none"><li>■ Tight temperature tolerances and differentials available</li><li>■ 6 A 120 Vac rating</li><li>■ Environmental exposure -62 °C to 288 °C [-80 °F to 550 °F]</li></ul>	<ul style="list-style-type: none"><li>■ Industrial glue guns</li><li>■ Blood analyzers</li><li>■ Battery pack heater</li></ul>
3106	<ul style="list-style-type: none"><li>■ Gold alloy cross-point contacts for use in logic level circuits</li><li>■ Tight temperature tolerances and differentials available</li></ul>	<ul style="list-style-type: none"><li>■ Solid state control backup</li></ul>
3150	<ul style="list-style-type: none"><li>■ Low profile 7,7 mm [0.305 in] maximum design height</li><li>■ 6 A 120Vac rating</li><li>■ Tight temperature tolerances and differentials available</li></ul>	<ul style="list-style-type: none"><li>■ Commercial aircraft avionics</li><li>■ Power supplies</li><li>■ Copy machine overheat protection</li></ul>
3156	<ul style="list-style-type: none"><li>■ Gold alloy cross-point contacts for use in logic level circuits</li><li>■ Low profile 7,7 mm [0.305 in] maximum design height</li><li>■ UL recognized and CSA certified</li><li>■ Tight temperature tolerances and differentials available</li></ul>	<ul style="list-style-type: none"><li>■ Dry circuit applications where space is limited</li></ul>

➔ Custom Packaged Thermostats		
Series	Features	Applications

**Part Number Search**

Search the Sensing and Control Interactive Catalog.

➔

**Keyword Search**

Search for product and support information.

➔ **Advanced Search**

3000	<ul style="list-style-type: none"> <li>■ Customized probe length</li> <li>■ Custom probe materials</li> <li>■ Many termination/connector options</li> </ul>	<ul style="list-style-type: none"> <li>■ Heater control</li> <li>■ Aircraft bleed air Duct sensing</li> <li>■ Liquid bath control</li> <li>■ Hydraulic oil temperature control</li> </ul>
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#### → Non-Hermetic Thermostats

Series	Features	Applications
3001, 3004	<ul style="list-style-type: none"> <li>■ Low profile and lightweight (Model 3001)</li> <li>■ European approved (3004 only)</li> <li>■ Tight temperature tolerances and differentials available</li> </ul>	<ul style="list-style-type: none"> <li>■ Computers</li> <li>■ Office equipment</li> <li>■ Blood analyzers</li> </ul>

#### → High Amperage Thermostats 15 A

Series	Features	Applications
3450, 3455R, 3455RBV	<ul style="list-style-type: none"> <li>■ Electrical rating to 15 A 120 Vac resistive</li> <li>■ UL recognized, CSA certified and European approved</li> <li>■ Single-pole, single-throw</li> <li>■ Environmental exposure for the 3450 &amp; 3455R -18 °C to 177 °C [0 °F to 350 °F]</li> <li>■ Environmental exposure for the 3455RBV -18 °C to 121 °C [0 °F to 250 °F]</li> </ul>	<ul style="list-style-type: none"> <li>■ Power supplies</li> <li>■ Communications equipment</li> <li>■ Medical equipment</li> <li>■ Computers (where high amperage loads are present)</li> </ul>
3450RC, 3455RC	<ul style="list-style-type: none"> <li>■ High temperature environmental exposure -18 °C to 288 °C [0 °F to 550 °F]</li> <li>■ Electrical rating to 15 A 120 Vac resistive</li> <li>■ UL recognized, CSA certified and European approved</li> <li>■ Single-pole, single-throw</li> </ul>	<ul style="list-style-type: none"> <li>■ Communications equipment</li> <li>■ Computers (where high amperage loads are present)</li> <li>■ Medical equipment</li> <li>■ Appliances</li> </ul>

#### → Manual Reset Thermostats

Series	Features	Applications
3455RM, 3450CM	<ul style="list-style-type: none"> <li>■ Manually resettable operation (reset button)</li> <li>■ Electrical rating to 15 A 120 Vac resistive</li> <li>■ UL recognized and CSA certified</li> <li>■ Environmental exposure 10 °C to 177 °C [50 °F to 350 F]</li> </ul>	<ul style="list-style-type: none"> <li>■ Where automatic reset is not preferred</li> </ul>

### Commercial Thermostats

#### → Phenolic Thermostats

Series	Features	Applications
2450R, 2450HR, 2455R	<ul style="list-style-type: none"> <li>■ 15 A, 120 Vac; 10 A, 240 Vac</li> <li>■ UL recognized, CSA certified and European approved</li> <li>■ Contacts are available for mV and mA applications</li> <li>■ Environmental exposure 0 °C to 177 °C [32 °F to 350 °F]</li> </ul>	<ul style="list-style-type: none"> <li>■ Copy machines</li> <li>■ Medical equipment</li> <li>■ Power supplies</li> </ul>

→ Ceramic Thermostats		
Series	Features	Applications
2450RC, 2450RCH, 2455RC	<ul style="list-style-type: none"> <li>15 A 120 Vac; 10 A 240 Vac</li> <li>UL recognized, CSA certified and European approved</li> <li>Contacts are available for mV and mA applications</li> <li>Environmental Exposure 0 °C to 177 °C [32 °F to 350 °F]</li> </ul>	<ul style="list-style-type: none"> <li>Office automation products</li> <li>Table-top applications</li> <li>Industrial equipment</li> <li>Appliances</li> </ul>

→ Manual Reset Thermostats		
Series	Features	Applications
2455RM, 2450CM	<ul style="list-style-type: none"> <li>15 A, 120 Vac; 10 A, 240 Vac</li> <li>UL recognized, CSA certified and European approved</li> <li>Environmental Exposure for 2455RM -18 °C to 121 °C [0 °F to 250 °F]</li> <li>Environmental exposure for 3450CM 10 °C to 260 °C [50 °F to 500 °F]</li> </ul>	<ul style="list-style-type: none"> <li>Office automation products</li> <li>Medical equipment</li> </ul>

→ Overmolded Automatic Reset Thermostats		
Series	Features	Applications
2455RBV	<ul style="list-style-type: none"> <li>15 A ,120 Vac; 8.3 A, 240 Vac</li> <li>UL recognized, CSA certified and European approved</li> <li>Environmental exposure -18 °C to 121 °C [0 °F to 250 °F]</li> </ul>	<ul style="list-style-type: none"> <li>Industrial equipment</li> </ul>

→ Heat Detection Thermostats		
Series	Features	Applications
2450A, 2455RA	<ul style="list-style-type: none"> <li>UL recognized</li> <li>Environmental exposure 0 °C to 150 °C [32 °F to 302 °F]</li> </ul>	<ul style="list-style-type: none"> <li>Heat detection</li> </ul>

→ One-shot Thermostats		
Series	Features	Applications
2450R, 2455R, 2450RC, 2455RC	<ul style="list-style-type: none"> <li>15 A, 120 Vac; 10 A, 240 Vac</li> <li>UL recognized, CSA certified and European approved</li> <li>Environmental exposure for 2450R &amp; 2455R 0 °C to 177 °C [32 °F to 350 °F]</li> <li>Environmental exposure for 2450RC &amp; 2455RC 0 °C to 288 °C [32 °F to 550 °F]</li> </ul>	<ul style="list-style-type: none"> <li>Automation equipment</li> <li>Tabletop appliances</li> </ul>



## **'Permanent Stock' of Thermostats Type 2455R**

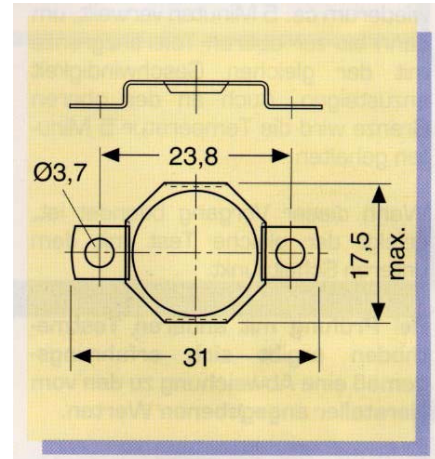
- **Functions: Open on Rising Temperature, and Close on Rising Temperature**
- **Standard Mounting Bracket: B 203 S**
- **Terminals: horizontal T 146**
- **Operating Temperatures in 10° C Steps.**
- **Up to 15A and up to 250V AC**
- **Silver contact system**

Part Number	Function			
	Open		Close	
	°C	+/-K	°C	+/-K
2455R- 100-84	30	3	15	4
2455R- 100-72	40	3	25	6
2455R- 100-73	50	3	35	6
2455R- 100-85	60	3	45	6
2455R- 100-74	70	3	55	6
2455R- 100-75	80	3	65	6
2455R- 100-76	90	3	75	6
2455R- 100-77	100	4	80	7
2455R- 100-86	110	4	90	7
2455R- 100-98	120	4	98	6
2455R- 100-88	130	4	110	8
2455R- 100-89	140	4	115	8
2455RC- 9100-373	150	7	120	8

	Close		Open	
	°C	+/-K	°C	+/-K
2455R- 100-78	50	3	35	6
2455R- 100-79	60	3	45	6
2455R- 100-92	80	3	65	6
2455R- 100-93	90	3	75	6
2455R- 100-94	100	4	80	7
2455R- 100-95	120	4	100	7
2455R- 100-96	140	4	115	8

**Mounting Bracket B 203S**



**Terminals T 146**

