

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.

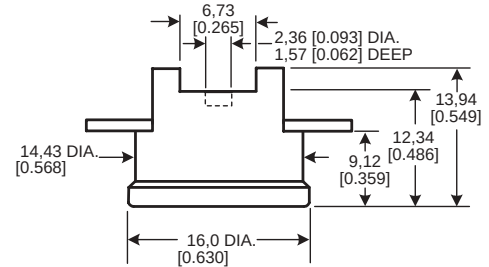
NOTE: The products in this section do not follow the "how to use this catalogue" instructions provided in the catalogue introduction. Specific reference numbers are not given due to their custom nature. Please contact your local Honeywell sales office for ordering information.

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.

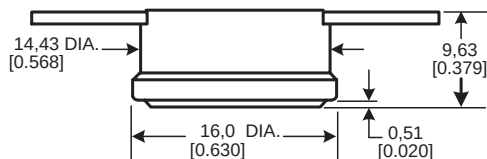
Reset type:	Automatic
Amperage capacity:	15 A resistive max.
Housing material:	Phenolic
Operating temperature range:	0 °C to 150 °C [32 °F to 302 °F]
Environmental exposure range:	0 °C to 177 °C [32 °F to 350 °F]

2450HR



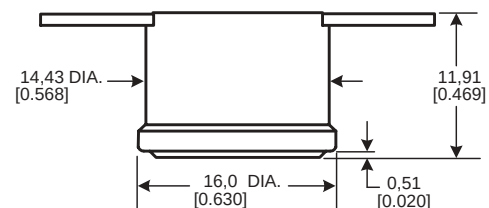
SERIES NAME
2450HR Phenolic Automatic Reset Thermostat

2450R



SERIES NAME
2450R Phenolic Automatic Reset Thermostat

2455R



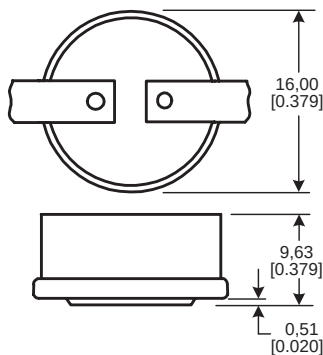
SERIES NAME
2455R Phenolic Automatic Reset Thermostat

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.

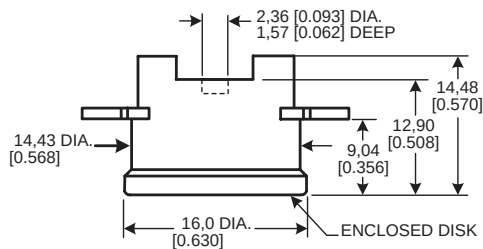
Reset type:	Automatic
Amperage capacity:	15 A resistive max.
Housing material:	Ceramic
Operating temperature range:	0 °C to 260 °C [32 °F to 500 °F]
Environmental exposure range:	-20 °C to 287 °C [0 °F to 550 °F]

2450RC



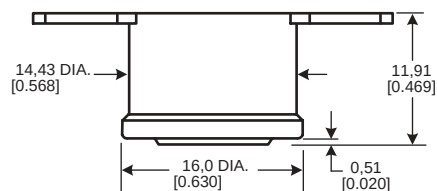
SERIES NAME
2450RC Ceramic Automatic Reset Thermostat

2450RCH



SERIES NAME
2450RCH Ceramic Automatic Reset Thermostat

2455RC



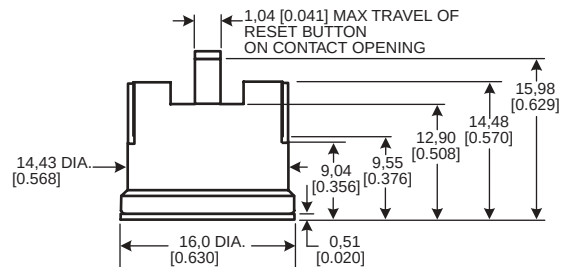
SERIES NAME
2455RC Ceramic Automatic Reset Thermostat

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.

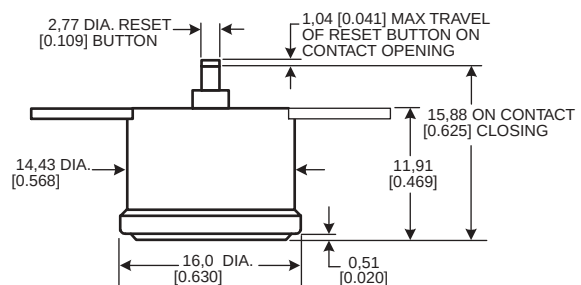
Reset type:	Manual
Amperage capacity:	15 A resistive max.
Housing material:	Ceramic or phenolic
Operating temperature range:	52 °C to 232 °C [125 °F to 450 °F] (ceramic) 52 °C to 150 °C [125 °F to 302 °F] (phenolic)
Environmental exposure range:	10 °C to 260 °C [50 °F to 500 °F] (ceramic) 10 °C to 177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

2450CM



SERIES NAME
2450CM Ceramic Manual Reset Thermostat

2455RM



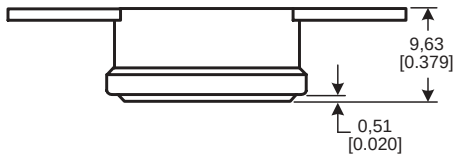
SERIES NAME
2455RM Phenolic Manual Reset Thermostat

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].

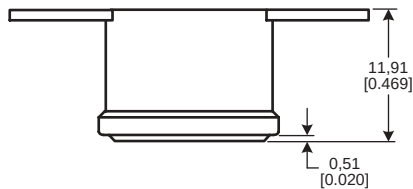
Reset type:	Automatic
Amperage capacity:	15 A resistive max.
Housing material:	Phenolic, epoxy-sealed cap and terminal
Operating temperature range:	47 °C to 107 °C [117 °F to 225 °F]
Environmental exposure range:	0 °C to 150 °C [32 °F to 302 °F]

2450A



SERIES NAME
2450A Heat Detection Thermostat

2455A



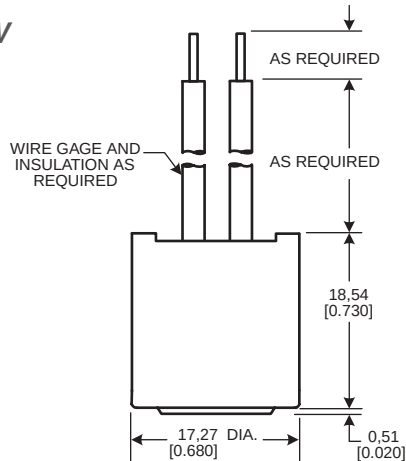
SERIES NAME
2455A Heat Detection Thermostat

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



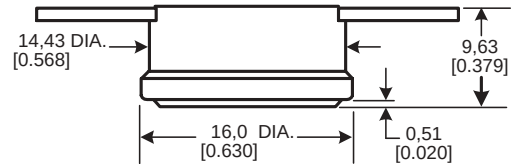
SERIES NAME
2455RBV Overmolded Automatic Reset Thermostat

2450R/2450RCH/2455R/2455RC Series "One-shot" ½ in Thermostats

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

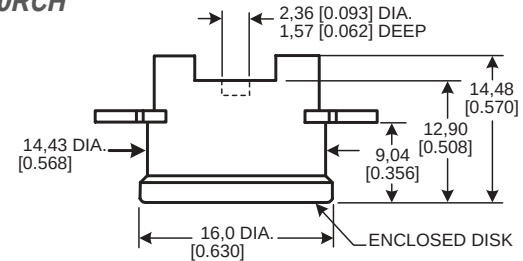
Reset type:	None
Amperage capacity:	15 A resistive max.
Housing material:	ceramic or phenolic
Operating temperature range:	52 °C to 260 °C [125 °F to 500 °F] (ceramic) 52 °C to 150 °C [125 °F to 302 °F] (phenolic)
Environmental exposure range:	18 °C to 316 °C [0 °F to 600 °F] (ceramic) 18 °C to 177 °C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

2450R



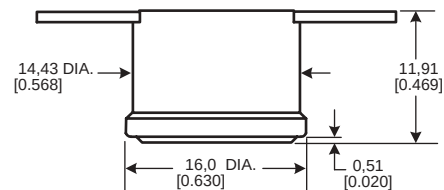
SERIES NAME
2450R Phenolic "One-shot" ½ in Thermostat

2450RCH



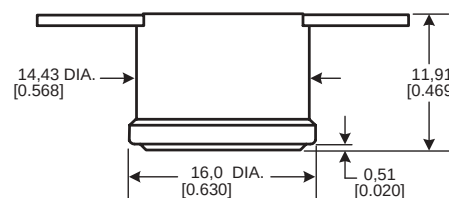
SERIES NAME
2450RCH Ceramic "One-shot" ½ in Thermostat

2455R



SERIES NAME
2455R Phenolic "One-shot" ½ in Thermostat

2455RC



SERIES NAME
2455RC Ceramic "One-shot" ½ 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.

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



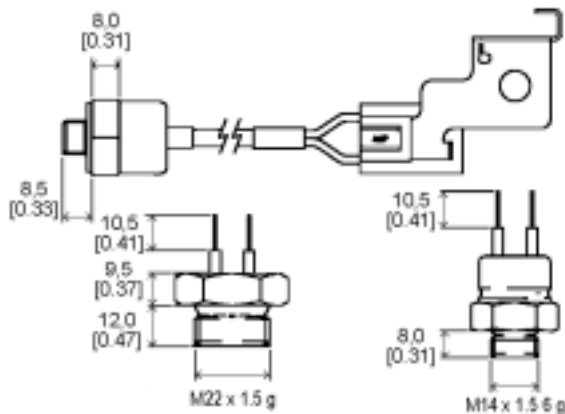
SERIES NAME

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.

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



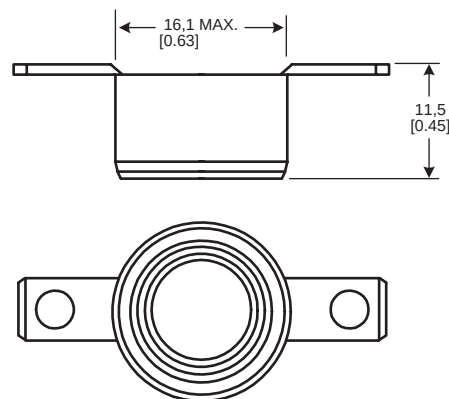
SERIES NAME

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.

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

Quick Links

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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	■ Tight temperature tolerances and differentials available ■ 6 A 120 Vac rating ■ Environmental exposure -62 °C to 288 °C [-80 °F to 550 °F]	■ Industrial glue guns ■ Blood analyzers ■ Battery pack heater
3106	■ Gold alloy cross-point contacts for use in logic level circuits ■ Tight temperature tolerances and differentials available	■ Solid state control backup
3150	■ Low profile 7,7 mm [0.305 in] maximum design height ■ 6 A 120Vac rating ■ Tight temperature tolerances and differentials available	■ Commercial aircraft avionics ■ Power supplies ■ Copy machine overheat protection
3156	■ Gold alloy cross-point contacts for use in logic level circuits ■ Low profile 7,7 mm [0.305 in] maximum design height ■ UL recognized and CSA certified ■ Tight temperature tolerances and differentials available	■ Dry circuit applications where space is limited

→ 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	■ Customized probe length ■ Custom probe materials ■ Many termination/connector options	■ Heater control ■ Aircraft bleed air Duct sensing ■ Liquid bath control ■ Hydraulic oil temperature control
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→ Non-Hermetic Thermostats

Series	Features	Applications
3001, 3004	■ Low profile and lightweight (Model 3001) ■ European approved (3004 only) ■ Tight temperature tolerances and differentials available	■ Computers ■ Office equipment ■ Blood analyzers

→ High Amperage Thermostats 15 A

Series	Features	Applications
3450, 3455R, 3455RBV	■ Electrical rating to 15 A 120 Vac resistive ■ UL recognized, CSA certified and European approved ■ Single-pole, single-throw ■ Environmental exposure for the 3450 & 3455R -18 °C to 177 °C [0 °F to 350 °F] ■ Environmental exposure for the 3455RBV -18 °C to 121 °C [0 °F to 250 °F]	■ Power supplies ■ Communications equipment ■ Medical equipment ■ Computers (where high amperage loads are present)
3450RC, 3455RC	■ High temperature environmental exposure -18 °C to 288 °C [0 °F to 550 °F] ■ Electrical rating to 15 A 120 Vac resistive ■ UL recognized, CSA certified and European approved ■ Single-pole, single-throw	■ Communications equipment ■ Computers (where high amperage loads are present) ■ Medical equipment ■ Appliances

→ Manual Reset Thermostats

Series	Features	Applications
3455RM, 3450CM	■ Manually resettable operation (reset button) ■ Electrical rating to 15 A 120 Vac resistive ■ UL recognized and CSA certified ■ Environmental exposure 10 °C to 177 °C [50 °F to 350 °F]	■ Where automatic reset is not preferred

Commercial Thermostats

→ Phenolic Thermostats

Series	Features	Applications
2450R, 2450HR, 2455R	■ 15 A, 120 Vac; 10 A, 240 Vac ■ UL recognized, CSA certified and European approved ■ Contacts are available for mV and mA applications ■ Environmental exposure 0 °C to 177 °C [32 °F to 350 °F]	■ Copy machines ■ Medical equipment ■ Power supplies

→ **Ceramic Thermostats**

Series	Features	Applications
2450RC, 2450RCH, 2455RC	15 A 120 Vac; 10 A 240 Vac - UL recognized, CSA certified and European approved - Contacts are available for mV and mA applications - Environmental Exposure 0 °C to 177 °C [32 °F to 350 °F]	- Office automation products - Table-top applications - Industrial equipment - Appliances

→ **Manual Reset Thermostats**

Series	Features	Applications
2455RM, 2450CM	15 A, 120 Vac; 10 A, 240 Vac - UL recognized, CSA certified and European approved - Environmental Exposure for 2455RM -18 °C to 121 °C [0 °F to 250 °F] - Environmental exposure for 3450CM 10 °C to 260 °C [50 °F to 500 °F]	- Office automation products - Medical equipment

→ **Overmolded Automatic Reset Thermostats**

Series	Features	Applications
2455RBV	15 A, 120 Vac; 8.3 A, 240 Vac - UL recognized, CSA certified and European approved - Environmental exposure -18 °C to 121 °C [0 °F to 250 °F]	Industrial equipment

→ **Heat Detection Thermostats**

Series	Features	Applications
2450A, 2455RA	- UL recognized - Environmental exposure 0 °C to 150 °C [32 °F to 302 °F]	Heat detection

→ **One-shot Thermostats**

Series	Features	Applications
2450R, 2455R, 2450RC, 2455RC	15 A, 120 Vac; 10 A, 240 Vac - UL recognized, CSA certified and European approved - Environmental exposure for 2450R & 2455R 0 °C to 177 °C [32 °F to 350 °F] - Environmental exposure for 2450RC & 2455RC 0 °C to 288 °C [32 °F to 550 °F]	- Automation equipment - Tabletop appliances

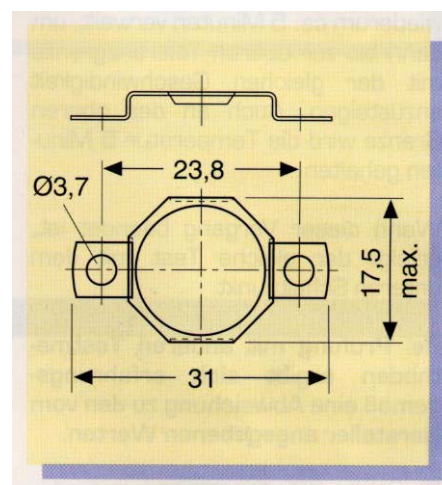
'Permanent Stock' of Thermostats Type 2455R

- **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

