X SERIES

Snap - action Thermostat

Introduction

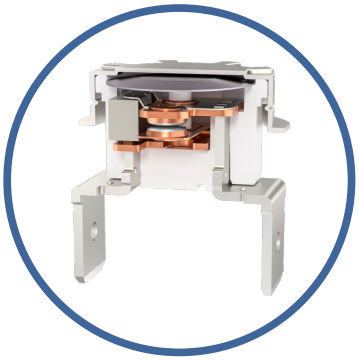
KSD 301 Snap - action thermostat (X series) is a kind of temperature controller that with stable performance, high precsion, small size , light weight, high reliability, long life, less worry to the radio.

PPS/PMC Housing

Power off reset model

Automatic reset model

Ceramic Housing



Manual reset model

KSD 301 - D/P/S/T/Z SPECIFICATIONS

Application Range

It is widely used in water dispenser,water heater,sandwich toaster,dishwasher,dryer disinfection cabinet,microwave oven,electric coffee pot, electric boiling pot,refrigerator,air conditioning,glue machine,office equipment,car seat heater and other electric heating appliances.

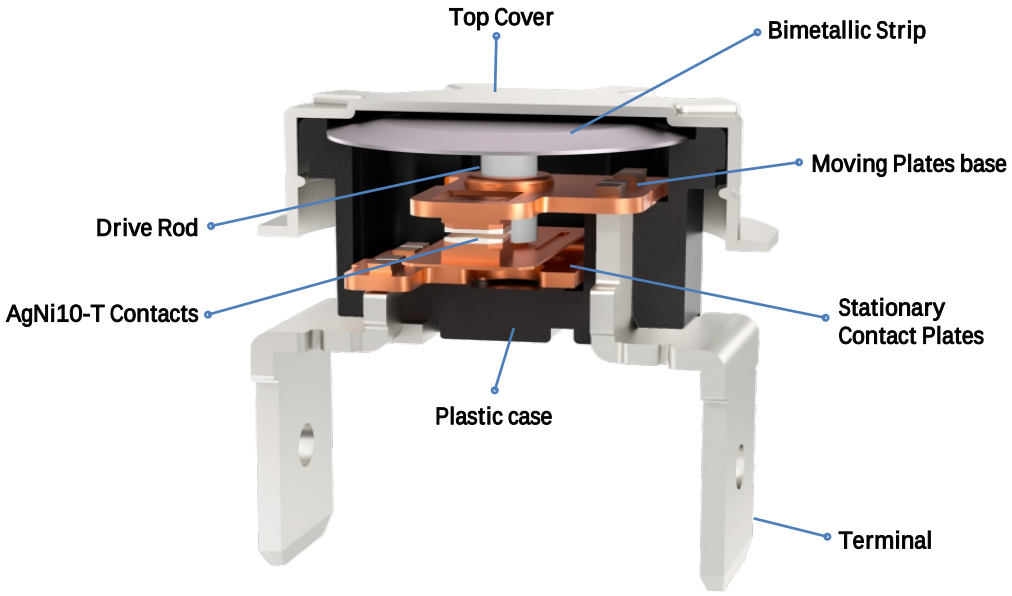
Brand-new design without guide frame

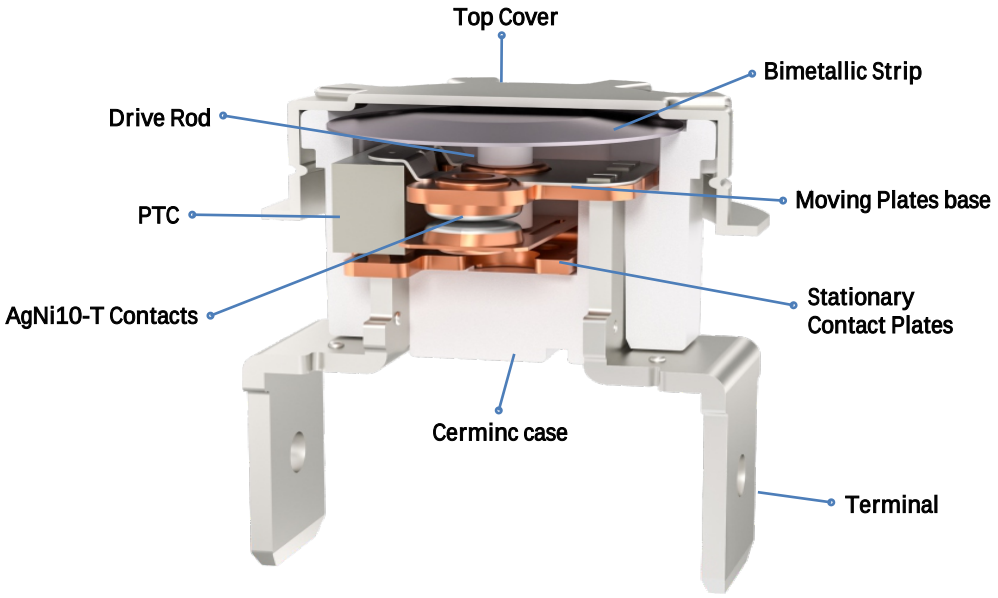
The ChuanCheng X series snap action thermostat adopts a guide frame-free design, enhancing the stability of the ceramic stem, optimizing the overall height, and improving temperature sensing sensitivity by 10%

Innovative riveting PTC structure

Adopting a new riveted PTC structure saves internal space, improves the utilization rate of internal space, and ensures safer PTC power-off reset

KSD 301 STRUCTURE

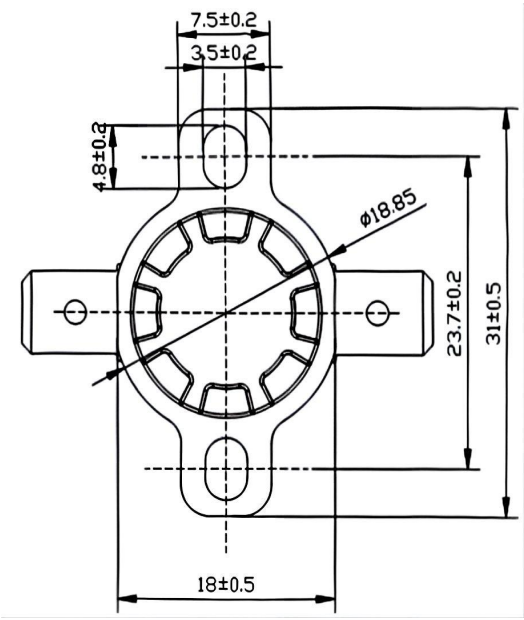


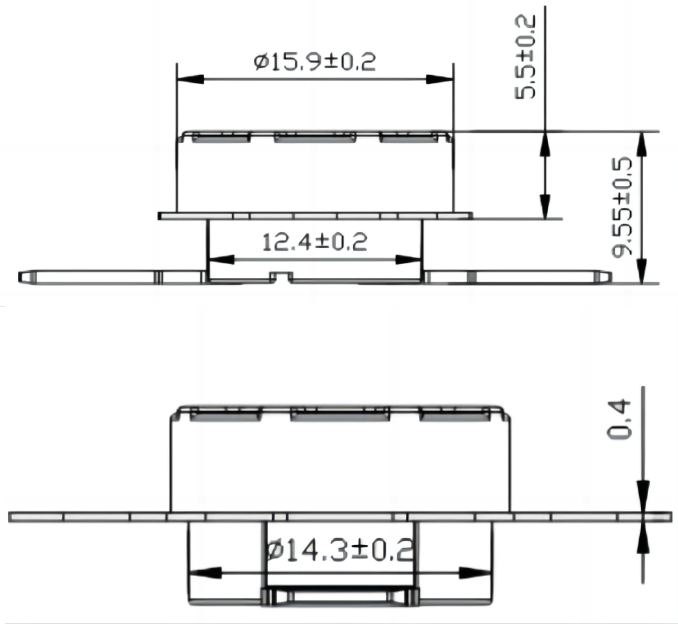


DIMENSION AND DIAGRAMS

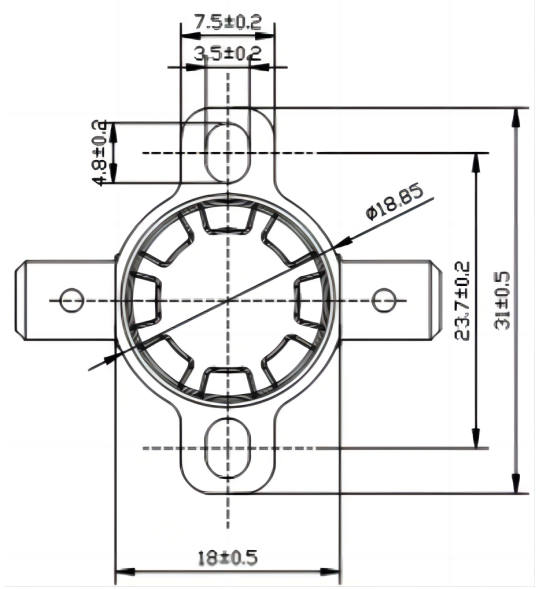
Dimensions in mm (Inches)

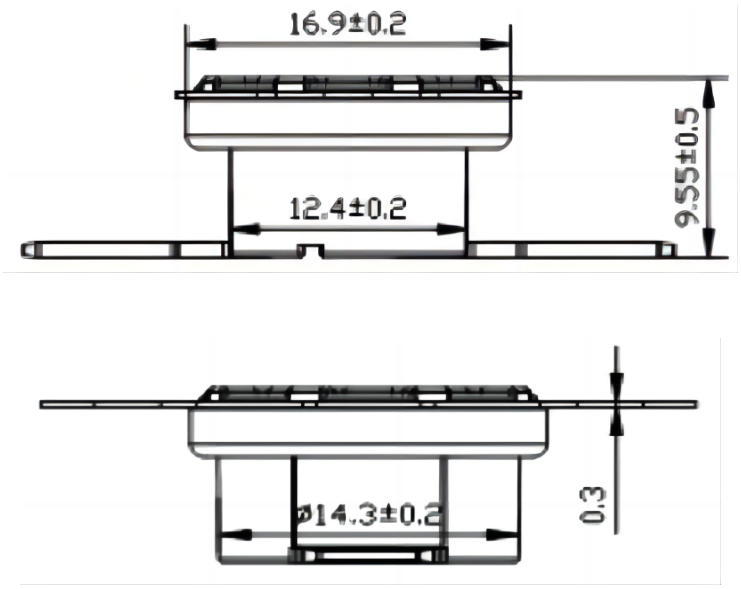
Type with fixed support





Type with movabled support



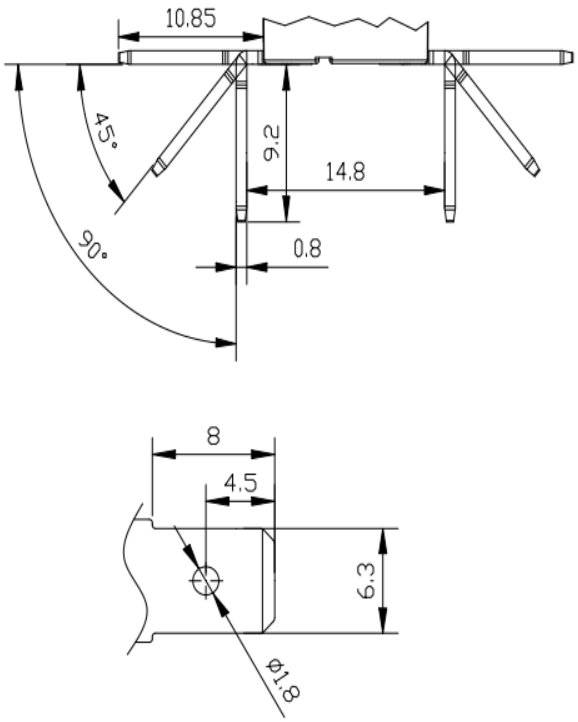


NOMINAL PERFORMANCE

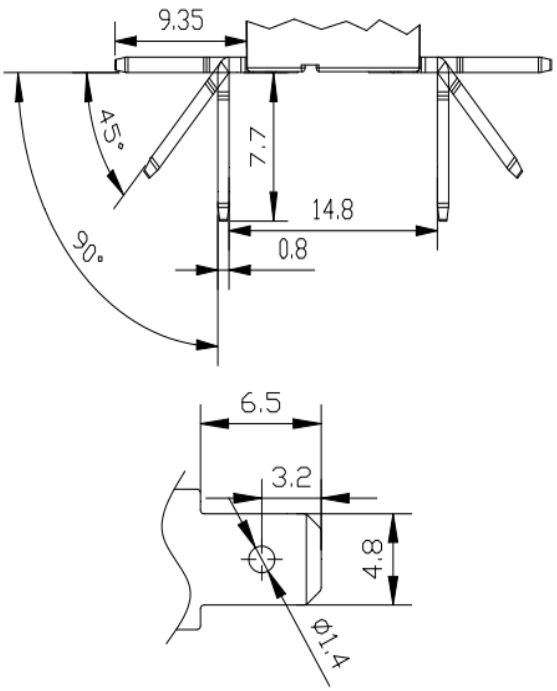
Specification	Operating temperature range	Reset Temperature
≤60℃	±5℃	After the action, when the ambient temperature drops by 40% or after 5 minutes, turn the push rod head to reset.
61~150℃	±5℃	
151~180℃	±5℃	
181-250℃	±8℃	

Special temperature specifications requested by customers can be customized

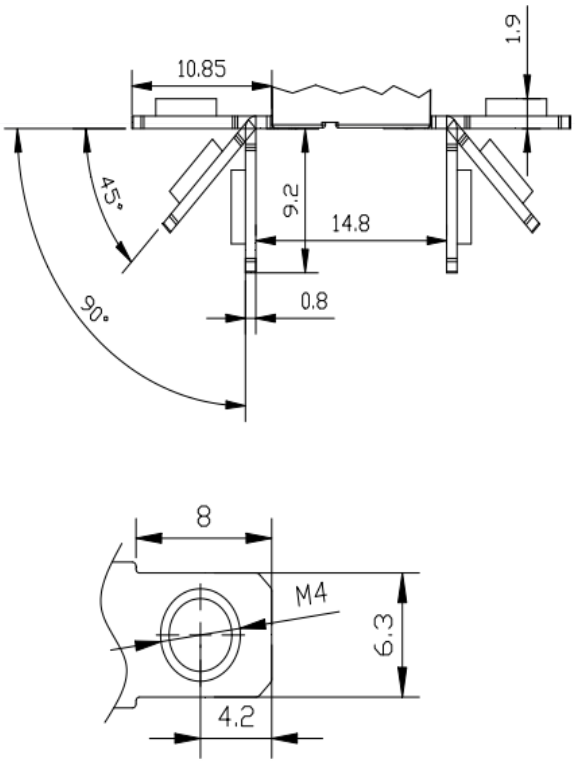
TERMAL SPECIFICATION



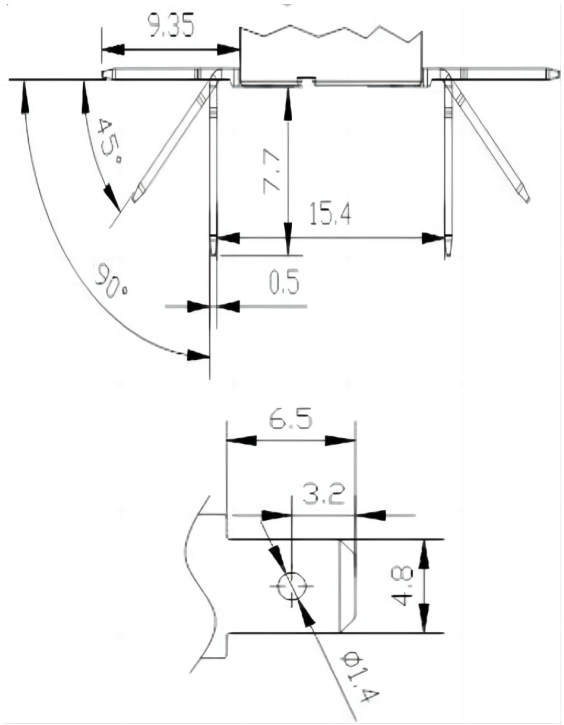
#250 Quick Connect Terminal



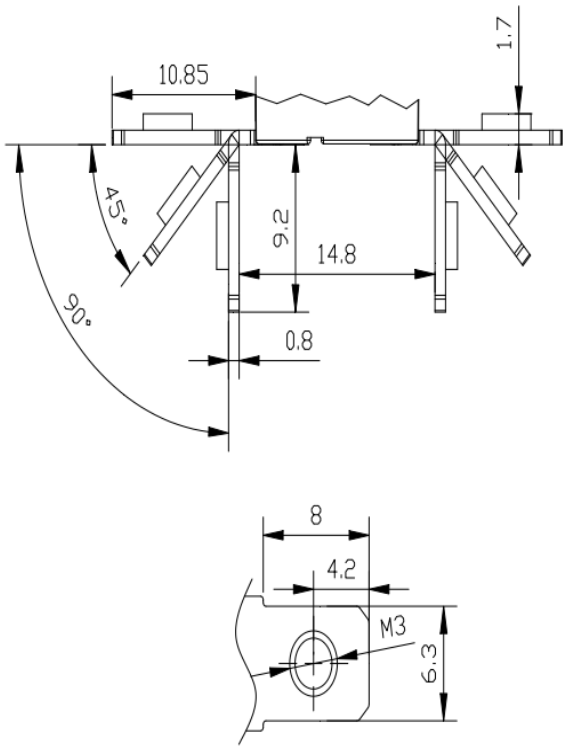
#187 0.8 Quick Connect Terminal



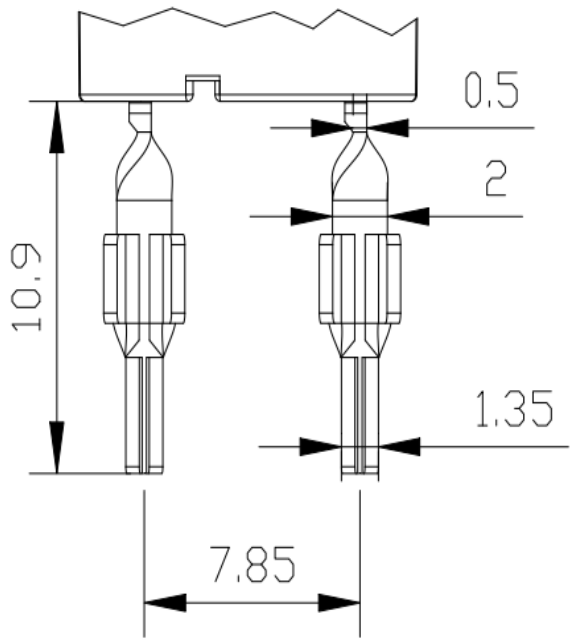
M4 Threaded Terminal



#187 0.8 Quick Connect Terminal



M3 Threaded Terminal



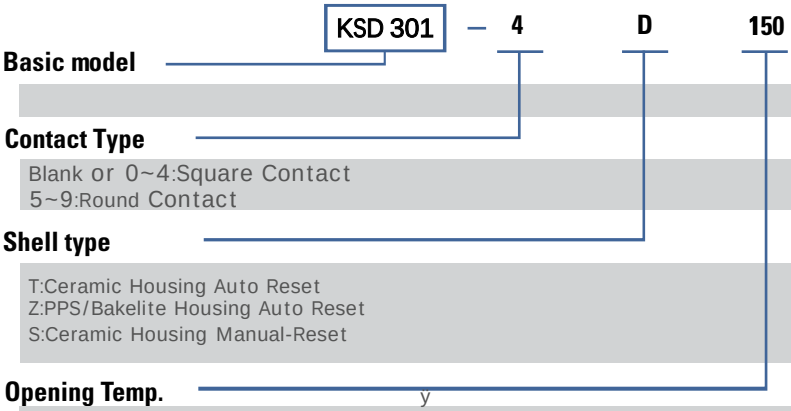
Rivet Terminal

T:CeramicHousingAuto Reset
Z:PPS/Bakelite HousingAuto Reset
S:CeramicHousingManual Reset
D:PPS/BakeliteHousingManual Reset
P:CeyamicHousing Power Of Reset (wuth PTC)

PRODUCT NAMING METHOD

Example : KSD 301 – 4D 150

X Series



PRODUCT SAFETY CERTIFICATION

	AC125V/250V	DC 36V	TUV	CQC	UL
Operation Temp.	40~220℃	40~220℃	**File** R50616606	**File** CQC23002413188 **Standard** GB/T 14536.1 GB/T 14536.10	**File** E465826 **Standard** UL / EN IEC 60730-2-9
Electric current	5A/10A/13A/16A 25A/30A	5A/10A/13A/16A 25A/30A/32A			
Cycle	over 10,000 times	over 10,000 times			

INSTALLATION MANUAL

1.When installing, disassembling, wiring, or performing maintenance and inspections on the thermostat, ensure the power is disconnected to prevent electric shock and damage to the product.
2.Grounding Method: Connect the thermostat's metal housing to the equipment's grounded metal components.
3.The thermostat should be installed on a flat surface. If the installation surface is uneven, it may cause changes in the thermostat's operating temperature, malfunction, or damage to the housing
4. Do not press down or deform the top cover to avoid changes in operating temperature or affecting other performance characteristics.
5. The housing must not be subjected to excessive force to prevent cracking and affecting its insulation properties.
6. When in direct contact with a heating plate or similar device, the heat resistance of the housing material should be considered.
7. When using contact temperature sensing, the cover should be tightly pressed against the heating part of the controlled device and thermal grease or a similar heat-conductive medium should be applied to the sensing surface of the cover.
8. Do not bend the terminal connectors during use, as this will affect the reliability of the electrical connections.

When using a perforated cover (exposing the temperature strip component) or a manually reset thermostat, the following conditions should be considered for their impact on the product:

1. Products with exposed temperature strips should be used in environments free of dust, particles, liquids, and condensation. Otherwise, the insulation of the thermostat may be affected.
2. The installation force applied to the sensing surface should not exceed 60N .

REGARDING SOLDERING:

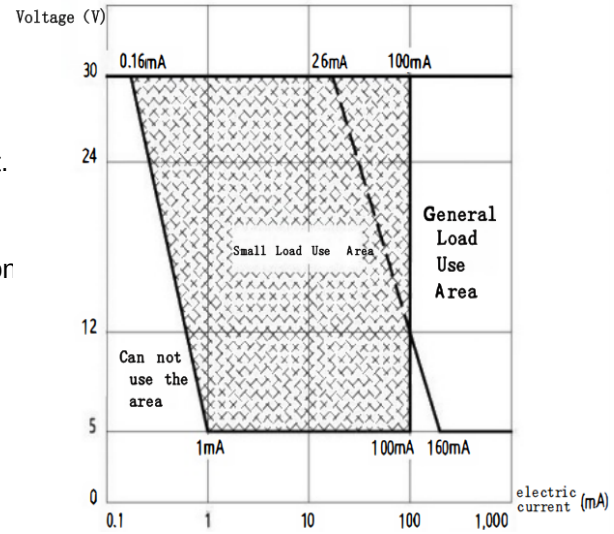
1. When soldering wires, pass the wire through the terminal hole before proceeding with the soldering.
2. When the soldering temperature exceeds 350° C, the soldering time shoul d be controlled within 3 seconds.
3. When the soldering temperature is below 350° C, the soldering time should be controlled within 5 seconds
4. No external force should be applied to the thermostat within 1 minute after soldering to avoid affecting its characteristics.
5. High temperatures or prolonged heating can cause changes in thermostat characteristics. Ensure temperature and time remain within safe limits.

REGARDING TERMINALS:

1. When using quick-connect terminals, avoid applying lateral force on the terminals when inserting the female terminal into the quick-connect terminal to prevent deformation of the terminal and damage to the housing, which could affect the thermostat characteristics 5

REGARDING USE IN LOW LOAD CIRCUITS:

1.Using a general-load thermostat in a low -load circuit may cause poor contact. Refer to the diagram and use the thermostat within the specified range.
2. For loads that generate surge currents duringoperation, contact wear will increase, and the service life will decrease. Therefore, insert a contact protectior circuit as needed



GENERAL PRINCIPLES

This product specification only puts forward the minimum technical requirements and not applicable to all technical requirements and standard. The seller shall provide the high-quality products and corresponding services that meet the requirements in this Technical Agreement.

The requirements of national compulsory standard concerning safety and environmental protection shall also be met.

In case the supplier not raise any objection to the terms of this spectification, the supplier shall provide products that completely meet the requirements that description in the spection

If the standards used in this specification are inconsistent with those used by the supplier , the higher standards shall be applied

Standards to follow

※*GB/T 14536.1 " Automatic Electrical Controllers for Household and Similar Use Part 1: General Requirements "*

※*GB/T 14536.10《Automatic Electrical Controls - Part 10: Particular Requirements For Temperature Sensing Controls》*

※*UL / EN IEC 60730-2-9*

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