

KSD301 温控器

KSD301 Thermostat

结构特点 Features of structure

KSD301 系列突跳式温控器是小型双金属片温控器，属温度继电器类器件。利用碟型双金属片在温度作用下产生瞬间跳动的原理，通过机构的作用，使触点迅速动作，达到断开或接通电路的目的。其工作温度固定，无须调整；动作可靠干脆，电弧小；使用寿命长；无线电干扰小。

KSD301 snap action thermostat is small-size bimetal thermostat series with a metal cap, which belongs to thermal relays' family. The main principle is that one function of bimetal discs snap action under the change of sensing temperature. The snap action of disc can push the action of the contacts through the inside structure, then caused on or off of the circuit finally. The main characteristics are the fixation of working temperature, the reliable snap action, less flashover, longer working life and less radio interference.

技术参数 Technical parameters:

额定电流 Rated current(Ir): 10A, 15A;

额定电压 Rated voltage(Ur): AC250V;

动作温度公差 Action temperature Tolerance: $\pm 5^{\circ}\text{C}$

常态电气强度 Electric intensity: AC2000V 50/60Hz 历时 1min, 无击穿、无闪络 for 1min; no breakdown and no flashover

常态接触电阻 Contact resistance: $< 50\text{m}\Omega$

绝缘电阻 Insulation resistance: $> 100\text{M}\Omega$

响应速度 Response speed: $\leq 1^{\circ}\text{C}/\text{min}$

寿命次数 Operation cycles: > 30000 次

动作及复位温度

动作温度 Action temperature	复位温度 Reset temperature	动作温度 Action temperature	复位温度 Reset temperature
45 \pm 5 $^{\circ}\text{C}$	40 \pm 6 $^{\circ}\text{C}$	130 \pm 5 $^{\circ}\text{C}$	100 \pm 15 $^{\circ}\text{C}$
50 \pm 5 $^{\circ}\text{C}$	43 \pm 6 $^{\circ}\text{C}$	135 \pm 5 $^{\circ}\text{C}$	105 \pm 15 $^{\circ}\text{C}$
55 \pm 5 $^{\circ}\text{C}$	45 \pm 6 $^{\circ}\text{C}$	140 \pm 5 $^{\circ}\text{C}$	110 \pm 15 $^{\circ}\text{C}$
60 \pm 5 $^{\circ}\text{C}$	50 \pm 10 $^{\circ}\text{C}$	145 \pm 5 $^{\circ}\text{C}$	115 \pm 15 $^{\circ}\text{C}$
65 \pm 5 $^{\circ}\text{C}$	50 \pm 10 $^{\circ}\text{C}$	150 \pm 5 $^{\circ}\text{C}$	120 \pm 15 $^{\circ}\text{C}$
70 \pm 5 $^{\circ}\text{C}$	50 \pm 10 $^{\circ}\text{C}$	155 \pm 5 $^{\circ}\text{C}$	125 \pm 15 $^{\circ}\text{C}$
75 \pm 5 $^{\circ}\text{C}$	55 \pm 10 $^{\circ}\text{C}$	160 \pm 5 $^{\circ}\text{C}$	130 \pm 15 $^{\circ}\text{C}$
80 \pm 5 $^{\circ}\text{C}$	55 \pm 10 $^{\circ}\text{C}$	165 \pm 5 $^{\circ}\text{C}$	135 \pm 15 $^{\circ}\text{C}$
85 \pm 5 $^{\circ}\text{C}$	55 \pm 10 $^{\circ}\text{C}$	170 \pm 5 $^{\circ}\text{C}$	140 \pm 15 $^{\circ}\text{C}$
90 \pm 5 $^{\circ}\text{C}$	60 \pm 10 $^{\circ}\text{C}$	175 \pm 5 $^{\circ}\text{C}$	145 \pm 15 $^{\circ}\text{C}$
95 \pm 5 $^{\circ}\text{C}$	65 \pm 10 $^{\circ}\text{C}$	180 \pm 5 $^{\circ}\text{C}$	150 \pm 15 $^{\circ}\text{C}$
100 \pm 5 $^{\circ}\text{C}$	75 \pm 10 $^{\circ}\text{C}$	185 \pm 5 $^{\circ}\text{C}$	160 \pm 15 $^{\circ}\text{C}$
105 \pm 5 $^{\circ}\text{C}$	80 \pm 15 $^{\circ}\text{C}$	190 \pm 5 $^{\circ}\text{C}$	165 \pm 15 $^{\circ}\text{C}$
110 \pm 5 $^{\circ}\text{C}$	80 \pm 15 $^{\circ}\text{C}$	200 \pm 5 $^{\circ}\text{C}$	170 \pm 15 $^{\circ}\text{C}$
115 \pm 5 $^{\circ}\text{C}$	85 \pm 15 $^{\circ}\text{C}$	210 \pm 5 $^{\circ}\text{C}$	175 \pm 15 $^{\circ}\text{C}$
120 \pm 5 $^{\circ}\text{C}$	90 \pm 15 $^{\circ}\text{C}$	215 \pm 5 $^{\circ}\text{C}$	180 \pm 15 $^{\circ}\text{C}$
125 \pm 5 $^{\circ}\text{C}$	95 \pm 15 $^{\circ}\text{C}$	220 \pm 5 $^{\circ}\text{C}$	185 \pm 15 $^{\circ}\text{C}$

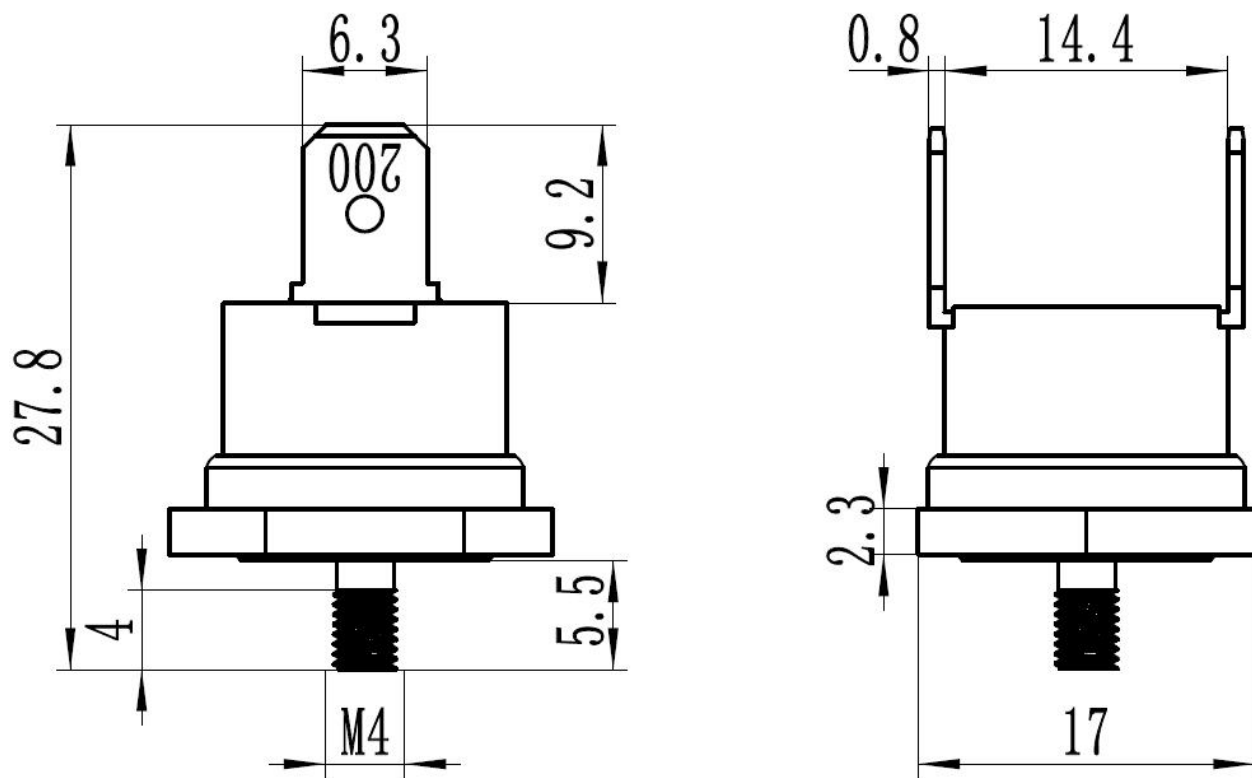
特殊规格可根据客户要求定做 The specification can also be manufactured as request.

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产品外形结构图

The exterior shape and dimensions of the product



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温度检测方法:

将试样两引线分别接在测试设备的夹具上, 通上 10mA 左右的电流 (不超过 100mA), 用一发光二极管指示电流的通断, 然后将试样放入专用测温设备内, (测试设备内温度应均匀, 加热升温速度可控制) 温度计探头应贴近试样, 控制检测设备温度以 $0.5\sim 1^{\circ}\text{C}/\text{min}$ 的速率升温, 当发光二极管熄灭时, 记下温度计读数即为试样的动作温度。

TEST METHOD: Sample is connected to the fixture of the equipment, and placed into the test equipment (Hot current of air in the space of test should be equipped with a stirrer and temperature is controllable). A detect current about 10mA (no more than 100mA) is passed through the sample and a thermometer is placed junction to the sample to monitor the opening temperature. The temperature of the test equipment is raised at the rate of $0.5\sim 1^{\circ}\text{C}$ per minute until the sample functioned.

注: 其中用温度计探头测温: 应将温度开关表面铝壳涂一层均匀的导热硅脂, 另将此产品锁紧在铝板上, 在锁温度开关铝板的另一边钻一小孔, 将温度探头伸进小孔内探测, 不建议将温度探头放在温度开关铝壳上面在去锁紧温度开关至铝壳上面, 这样会有一个点的空隙, 导致测温不太准确!