



# 承 认 书

## APPROVAL SHEET

编号 No.	KSD1153110
日期 Date	2020.07.15

客 户 Customer	IBS
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品 名 Product	Thermal Protector
系 列 Series	KSD05

料号 Part No.	规格描述 Specification	备注 Remark
贝特电子 Betterfuse	KSD1153110	KSD Series, Plastic shell, Normal close, Operation Temp. 105±5, Lead wire: AWG 22 UL3135 Black, Length: 60mm, Tin up length: 5mm
客 户 Customer		Model: KSD05PC115

### 环保特别提示 Special instructions for environmental protection

本产品:

供应商-贝特电子 Supplier-Betterfuse	零件承认章 Approval Signet	客 户 Customer	零件承认章 Approval Signet
制 作 Make			
审 核 Check			
确 认 Approval			

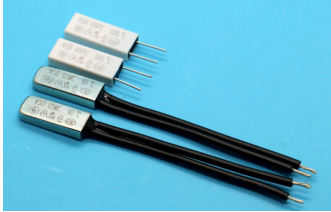
### 联络 Contact

业务 Sales	电话 Telephone	手机 Cellphone	邮箱 E-mail

零件承认后敬请回签一份给我司留存, 或将承认后的封面传真(0769-8352 1857)至我司, 谢谢!



## 1. SCOPE AND DESCRIPTION



The product for the KSD series thermal protector. Mainly as electrical appliances overheating or over temperature protection function.

KSD series thermal protector, widely used, mainly used in electric motors, pumps, lamps and lanterns, transformer, fan and related temperature overheat or over temperature protection appliance.

## 2. GENERAL INFORMATION

### General Description

Function: KSD thermal protector is through the bimetallic strip feel the change of temperature jump off action, and then cut off the circuit. The circuit of overheat or over temperature protection.

Construction: It is mainly composed of three major components: bimetallic strip action mechanism, the shell and the power cord..








### Characteristics:

KSD thermal protection appliance inductive temperature sensitive, quick, small volume, easy to install, the advantages of widely used in temperature related instruments, used as the over temperature protection or overheating protection.

### Detailed Features

- Operating Temperature: 60°C~150°C
- Tolerance: ±5°C
- Temperature difference between operated and resetable temperature : 15°C~50°C
- Endurance: 10, 000 cycles
- Resistance between contacts < 50mΩ
- Hi-pot test: 1500VAC 0.5mA 1min
- Insulation resistance: >5MΩ

## 3. AGENCY APPROVALS

Approval	Certification NO.	Rate Voltage / Ampere	Certification category
	E215779	250VAC 5A DC24V 10A 115VAC 8A	Thermal Motor Protector
	E468091	120VAC 8A 277VAC 5A 24VDC 8A 10,000cycle	Thermostat
	CQC14002119169	250VAC 5A DC24V 10A (P)	Thermal Motor Protector
	CQC14002119582	250VAC 5A DC24V 10A (M)	
	CQC19002215328	250VAC 5A 50Hz or 60Hz , DC24V 8A (P) 10,000cycle	Thermostat
	CQC19002215329	250VAC 5A 50Hz or 60Hz , DC24V 8A (M) 10,000cycle	
	R 50289642	250VAC 5A DC24V 10A	Thermal Motor Protector

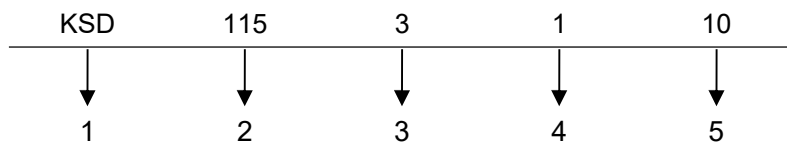


	R 50427761	250VAC 5A 50Hz or 60Hz , DC24V 8A 10,000cycle	Thermostat
<b>CB</b>	CN31084	250VAC 5A DC24V 10A (P)	Thermal Motor Protector
<b>CB</b>	CN31082	250VAC 5A DC24V 10A (M)	
	ZU02109-19001	250VAC 5A (M) 10,000cycle	Thermal cut out
	ZU02109-19002	250VAC 5A (P) 10,000cycle	

## 4. PART NUMBERING SYSTEM

### 4.1 Part Number

Example: KSD1153110



- 1 .....Product Series..... KSD
- 2 .....Operating Temperature..... 115°C (See table 4.2)
- 3 .....Casing material..... small plastic (See table 4.3)
- 4 .....Type of operating..... 0: Open 1: Close
- 5 .....Supplementary Code..... 10

### 4.2 Operating Temperature Table

TEMPERATURE CODE	OPERATING TEMPERATURE
060	60°C
065	65°C
070	70°C
075	75°C
080	80°C
085	85°C
090	90°C
095	95°C
100	100°C
105	105°C
110	110°C
115	115°C
120	120°C
125	125°C
130	130°C
135	135°C
140	140°C
145	145°C
150	150°C

### 4.3 Casing Material Code Table

CODE	DESCRIPTION
0	Big metal (20X7.4X3.8)
1	Big plastic (20X7.9X4.2)
2	small metal (15X7.0X3.2)
3	small plastic (15X7.1X3.5)---Normal Close
	small plastic (16X7.2X3.8)---Normal Open



#### 4.4 Printing instructions

Marking:



Marking Instructions:

first line:

KSD:Product series

05: Product model




P: Shell material (P-plastic shell M-metal shell)

C: Action state (C-normally closed O-normally open)

115°C:Product action temperature

Second line:

 :Company Logo

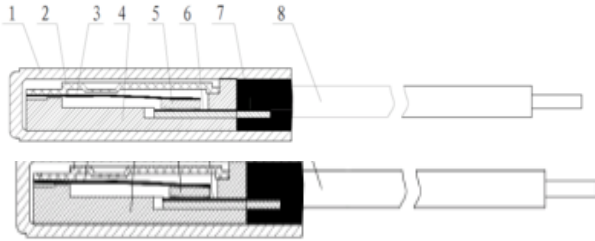
   :Certification symbol

Note:There is no marking in the other location of the product except

this position

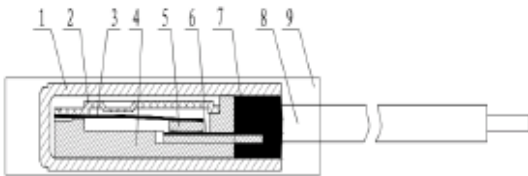


### Normal Close

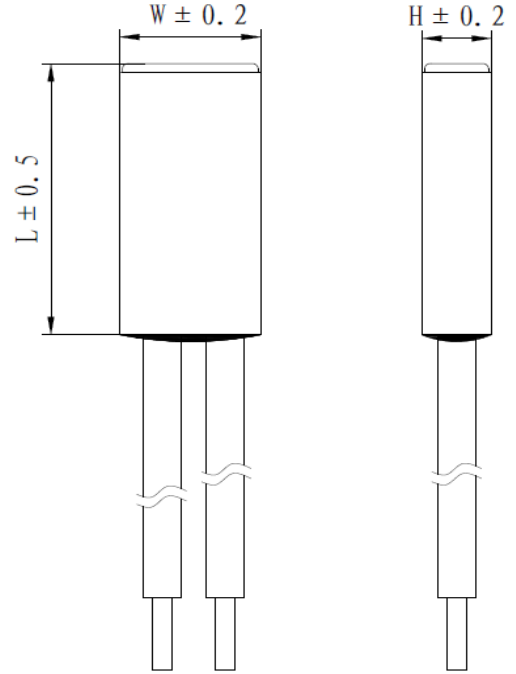


- 1. Plastic casing    2. Plate    3. Bi-metal
- 4. Bottom    5. Contact    6. Ag-plate
- 7. AB insulation paste    8. wire

#### KSD Series structure(metal casing)

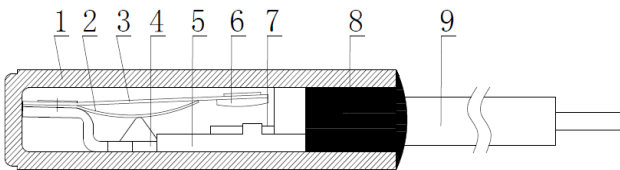


- 1. Metal casing    2. Plate    3. Bi-metal
- 4. Bottom    5. Contact    6. Ag-plate
- 7. AB insulation paste    8. Wire    9. Tube



Dimensions (units in mm)

### Normal Open(Plastic shell)



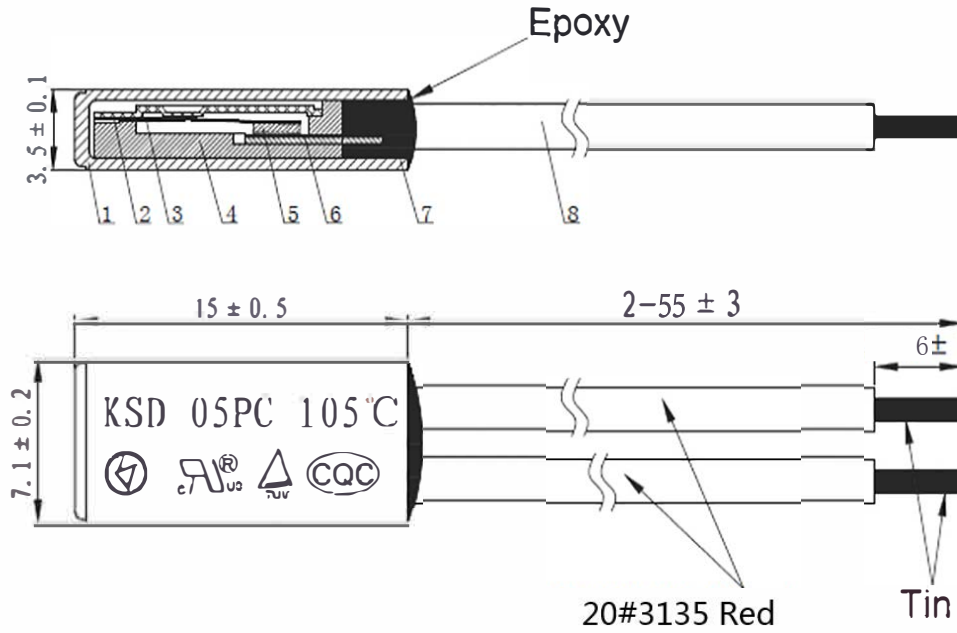
- 1. Plastic casing    2. Bi-metal    3. Movable Arm
- 4. Plate    5. Bottom    6. Movable Contact
- 7. Ag-plate    8. Epoxy    9. Wire

#### Parameter:

- 1. Operating: 60°C ~ 150°C
- 2. Tolerance: ±5°C
- 3. Temperature difference between operated and resetable temperature : 15°C ~ 50°C
- 4. Shell size:
  - A、L X W X H=20\*7.4\*3.8(metal normal size)--Normal Close
  - B、L X W X H=20\*7.9\*4.2(plastic normal size)--Normal Close
  - C、L X W X H=15\*7.0\*3.2(metal small size)--Normal Close
  - D、L X W X H=15\*7.1\*3.5(plastic small size)--Normal Close
  - E、L X W X H=16\*7.2\*3.8(plastic small size)--Normal Open
- 5. Shell material: customizable
- 6. Wire length and diameter: customizable
- 7. Reset reference, customizable

## 6. ELECTRICAL CHARACTERISTICS

Rated parameter: AC250V 5A, AC115V 8A, DC24V 10A



### Thermal Protector specifications

- 1、 Construction
  - 1.1 Model: KSD thermal protector series
  - 1.2 Casing material: plastic casing
  - 1.3 Shell size: 15×7.1×3.5
- 2、 Rated parameter: AC250V 5A; AC115V 8A; DC24V 10A
- 3、 Temperature Characteristics:
  - Operating Temperature: 105±5°C
  - Reset Temperature: 70±15°C
- 4、 Hi-pot test: Product leads and insulated shell, between AC1500V can withstand 1S without breakdown flashover phenomenon.
- 5、 Resistance between contacts: < 50mΩ
- 6、 Insulation resistance: under normal conditions, fuses and insulation shell insulation resistance in 5M Ω above. (used for DC500V meter)

PN:KSD1153110

No.	Part Name	Specification
1	Plastic shell	t=0.4mm, Nickel-plate Steel
2	Plate	t=0.25mm, Nickel-plated Steel
3	Bimetal	0.08mm, P30R or F25R
4	Bottom	PPS A7 or LCP E1301
5	Movable Contact	AgNi10/CuNi
6	Silver plate	AgNi10/QSn65
7	Epoxy resin	9001A/B
8	Lead wire	AWG 20 UL3135 Red

BoM

Dimensions: mm

UNMARKED TOLERANCE REQUIREMENTS				NAME	DATE	TITLE		
LINEAR		ANGLE		DRAWN		KSD SERIES THERMAL PROTECTOR		
XX	±0.1	XX	±1°	CHECK		SCALE	QUANTITY	DRAWING NO.
XX.X	±0.05	XX.X	±0.2°	APPROVE		1:1	1	SP-RD-200715001
XX.XX	±0.01	XX.XX	±0.05°	MATERIAL		THIRD ANGLE PROJECTION		