HawinEC

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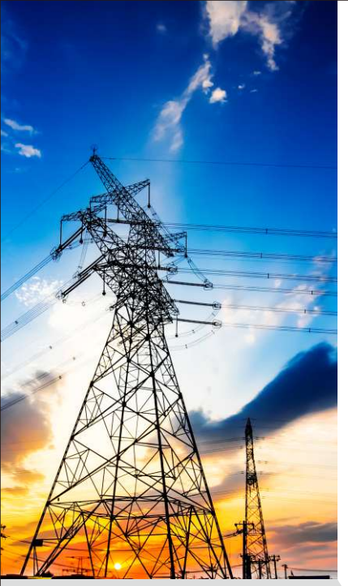
ISO9001 CE



YUEQING HAWIN ELECTRIC CO.,LTD.

Company introduction

We are a special manufacturer of electrical contacts. We have more than 20 years experience. All kinds of bimetal and trimetal contacts are our main products. We have modern production lines and high quality controlling equipment, professional engineers and highly trained technicians and skilled workers.

We have gained ISO9001 certificate for international quality system. Best quality and prices are our company’s life. Now our products are exporting to Russia, Germany, Turkey, Ukraine, Iran, India and so on.

We would like to receive your detailed information including the drawings, pictures, size, so that we can send you the price and samples for your confirmation.






Production Process

Materials → Testing → Qualified materials → In store → Apply for production line → Semi-products testing → Qualified products → Pass to working line → Products → Testing → Qualified products → Packing and store

Non-confirmation materials → Review treatment

Non-confirmation products → Review treatment

Non-confirmation products → Review treatment

HawinEC

ELECTRICAL CONTACTS

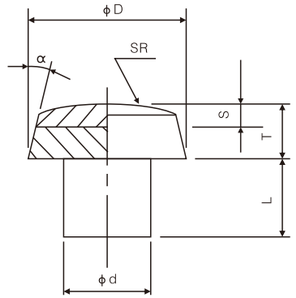


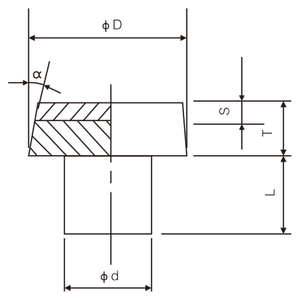



Our silver alloy electrical contacts main varieties: silver contact (Ag), Ag / Cu composite contact (Ag / Cu), silver nickel contacts (AgNi), silver nickel / copper (AgNi / Cu) composite contact, silver nickel / copper–nickel alloy composite contact (AgNi / CuNi), silver cadmium oxide alloy contact (AgCdO), silver cadmium oxide / copper composite contact (AgCdO / Cu), silver cadmium oxide / copper–nickel (AgCdO / CuNi) composite contact, silver tin oxide alloy (AgSnO2) contacts, silver tin oxide / copper (AgSnO2 / Cu) composite contact, silver oxide zinc alloy (AgZnO) electrical contacts, silver and copper alloy contacts (AgCu) And other varieties of the rivet–type silver alloy electrical contacts or plain films of various specifications of composite silver contacts (change with advanced cold forging molding process automation of production). Recently developed and put into production of silver tin oxide / copper–nickel alloy flat sheet type composites contacts (AgSnO2 / CuNi).

Our company can according to your special requirements, customized to your required specifications, and according to your needs, on behalf of research and development of new electronic metal products

RIVET TYPE SILVER ALLOY CONTACTS LABELED DIAGRAM





JB/T10383 – 2002 Rivet electrical contacts tolerance：			
ϕD = ±0.05mm	T = ±0.05mm	S = ±0.03mm	SR = 2 ~ 3D
ϕd=+0–0.05mm	L=+0.1mm	α=7 ~ 9℃	

Touch point size and limited deviation

Item	Diameter of head	Thickness of head	Thickness of composite	Diameter of foot	Length of foot	Radius of sphere	Angle of mold
Limited deviation	±0.05	±0.03	S≤0.4 S>0.4±0.06	−0.03~−0.08	±0.03	SR≤6±1 SR>6+1.5	±2
Basic dimension	2.0	0.4,0.5,0.6	0.2~0.3	0.9,1.0	1~2	3,5	9~15
	2.5	0.6,0.8,1.0	0.3~0.4	1.2,1.5		4,6	
	3.0	0.8,1.0,1.2	0.35~0.5	1.5		6,8	
	3.5			1.5,2.0	1~3.0		
	4.0	1.0,1.2,1.5		2.0		8,10	
	4.5			2.0,2.5			
	5.0	1.0 1.2 1.5 2.0	0.40~0.60	2.5		10,15	
	5.5			2.5,3.0			
	6.0			3.0		15,20	
	6.5	1.2 1.5 2.0	0.50~0.70	3.0,3.5			
	7.0			3.5		20,25	
	8.0			4.0			
	9.0	1.5 2.0	0.50~1.00	4.0,5.0	2~4.0	35,45	
	10.0			4.0,5.0			
	12.0			4.0,6.0			
	14.0			5.0,6.0		50,55	
	16.0			6.0			

TUNGSTEN RIVET FOR ELECTRIC HORN

Product Material

Wu/FE

General Description

The Tungsten points are arc resistance, redectory, and less current consumption when the metal contact on surface, strong on−off current capability, good wear properties and dynamic performance hit. And its cheaper than any other metal or alloy material.

Application Scope

Mainly used in the electric products such as automobiles, motorcycles, electric horn, magneto etc.

MaterialProperties

Material	Wu
Composition（%）	≥99.95
Grain number（PCS/mm2）	10000−20000
Density g/cm3	≥19.0
Hardness HV(Mpa)	680

SILVER NICKEL ALLOY ELECTRICAL CONTACT (AGNI10~20)

Silver nickel (AgNi) electrical contacts made of advanced materials, sintering, extrusion technology, nickel fibrous particles were uniformly distributed. Silver nickel (AgNi) electrical contacts of the contact resistance low and stable, electrical conductivity, thermal conductivity, and the burning of small, electric wear small and uniform, silver−nickel alloy (AgNi) electrical contacts in DC under the opening and closing, the electrical contacts materials transfer less than the silver contacts, especially for small enclosure off use; but (AgNi) Silver nickel alloy electrical contacts in the oxide Ershi off electrical contacts when the contact resistance increased, the sulfur−sensitive, high current, resistance poor welding performance. (AgNi) nickel−silver electrical contacts are usually associated with (AgNiC) Silver graphite electrical contact pair used. Silver nickel alloy material (AgNi) contains a special additive trace significantly improve resistance to weld the material properties and resistance to electrical wear. Mainly used in small enclosure in the high−load contact, the contact with DC under the conditions; low−voltage, small current level of contact, instrument switch, light control switches, relays, thermostat and washing machine timer. The main products are nickel−silver alloy electrical contacts AgNi, AgNi (10 ~ 20) / Cu Ag Ni / Cu composite electrical contact, silver nickel / copper−nickel alloy − AgNi (10 ~ 20) / CuNi (8 ~ 10) composite power contacts, etc.

Silver nickel electrical contacts of the mechanical and physical properties of materials

Type	AgNi10	AgNi15	AgNi20
Ni %	≤10	≤15	≤20
Resistivity μ Ω · cm	1.88	2.01	2.10
Conductivity IACS%	94.10	90.70	78.40
Density g/cm^3	10.30	10.21	10.10
Hardness HV−N/mm^2	750~980	800~980	850~980
Tensile strength Mpa	320−360	320−360	260−320

Silver alloy electrical contacts






Silver cadmium oxide contact materials made by sintering or extrusion process, silver cadmium oxide (AgCdO) in cadmium oxide (CdO) particles dispersed in silver matrix, the electrical contacts when the arc action, because the temperature increase, oxidative cadmium (CdO) show sub-Pyrolysis, evaporation Ershi electrical contact surface cooling, reducing the arc energy, which greatly improved the performance of electrical contacts of the interrupter, thus silver cadmium oxide (AgCdO) electrical contact material resistant to wear loss, anti-welding characteristics, and low and stable contact resistance. Increased oxidation of cadmium can increase the material resistance to weld, but will increase the contact resistance and temperature rise at the same time Reduce the material plasticity. Silver cadmium oxide contact material in high-current contactor in the electrical life of more than silver and silver-nickel alloy Ag AgNi has greatly improved and is widely used for low-voltage electrical appliances within the medium and high load electrical contact. Domestic AgCdO silver alloy oxide electrical contact material amount of the largest most widely used of a class; be large for medium and large-capacity relays, contactors, AC and DC switches and circuit breakers, etc. in a wide range of small capacity low-voltage electrical fields. EU countries in recent years because of environmental issues has been gradually disable the material is largely similar to the performance of silver tin oxide materials AgSnO alternative. The main products are AgCdO silver cadmium oxide alloy electrical contacts, AgCdO (10 ~ 15)/ Cu alloy of silver cadmium oxide / copper composite electrical contacts, silver cadmium oxide alloy / copper-nickel alloy-AgCdO (10 ~ 15) / CuNi (8 10) and other complex electrical contact.

Silver nickel electrical contacts of the mechanical and physical properties of materials

Type	AgCd015	AgCd015	AgCd015
Cdo %	⩽10	⩽12	⩽15
Resistivity μ Ω · cm	2.1	2.2	2.5
Density g/cm^3	10.1	10	9.9
Hardness HV-N/mm^2	750	800	850
Tensile strength Mpa	270 ~ 290	270 ~ 300	280 ~ 300
Stretching %	26	19	16

AgCdO trimetal contact






Silver (Ag) in the material used for electrical contacts can be listed as the first. It has the highest metal conductivity, its value is 106% IACS. The disadvantage is that silver is easy to form a black sulfide (AgS) sulfide film, easy to wear and low hardness, but because of the physical properties of fine silver is widely used as a low energy circuit electrical contacts. Mainly used in radio communication with the micro-switch, controlled switches, thermostats, relays, calculators, computers and other small current electrical field. The main products are silver contacts, Ag/Cu- silver / copper composite electrical contacts, silver / copper-nickel alloy -Ag/CuNi (8 ~ 10) composite electrical contact.

Silver contact of the mechanical and physical properties of materials

Type	Ag
Ag %	99.95
Density g/cm^3	2.1
Resistivity μ Ω · cm	10.1
Hardness HV-N/mm^2	650~950
Tensile strength Mpa	320~400
Stretching %	3

SILVER TIN OXIDE (AGSNO2) HAS AN EXCELLENT ELECTRICAL CONTACT MATERIALS






Silver tin oxide (AgSnO2) has an excellent electrical contact materials, stable performance and good resistance to welding arc erosion resistance properties. In the current large (500 ~ 3000A in the current range) conditions, the silver tin oxide (AgSnO2) contact than silver cadmium oxide (AgCdO) contact arc erosion resistance and better ability of the lamp or capacitive load Next, (AgSnO2) of silver tin oxide contact ratio (AgCdO) silver cadmium oxide contacts, (AgNi) Silver Nickel contact demonstrated significantly better anti-welding properties, in exchangeresistive load, silver tin oxide (AgSnO2) contact than silver cadmium oxide (AgCdO) contact with the slightly higher contact resistance (due to the small amount of special payments Oxide as an additive, thereby ensuring that its contact resistance is to the extent permitted), but the lights in the DC Circuit 13.5A / Motor (such as automotive relay) Ying with the occasions, they show a low and stable resistance value. DC conditions, and silver cadmium oxide (AgCdO) contact than silver tin oxide (AgSnO2) low electrical contact material with better shift. Silver tin oxide (AgSnO2) electrical contacts are now widely used in large-capacity AC contactors (eg, CJ20, CJ40, 3TF series, etc.), high power AC switch (50KW and above), DC contactors, AC (direct) flow power relay, automotive electronics, and small low-voltage circuit breaker capacity. The main products are AgSnO2 silver tin oxide alloy electrical contacts, AgSnO2 (8 ~ 12) / Cu alloy of silver tin oxide / copper composite electrical contacts, silver tin oxide alloy / copper-nickel alloy-AgSnO2 (8 ~ 12) / CuNi (8 10) composite electrical contacts, etc..

Silver tin oxide (AgSnO2) electrical contacts of the mechanical and physical properties of materials

Type	AgSnO2(8)	AgSnO2(10)	AgSnO2(12)
SnO2 %	8	10	12
Resistivity μ Ω · cm	2.10~2.50	2.10~2.50	2.10~2.50
Density g/cm^3	9.80~10.00	9.80~10.00	9.80~10.00
Hardness HV-N/mm^2	800~1100	800~1100	800~1100
Tensile strength Mpa	300~400	300~400	300~400

AGCDO TRIMETAL CONTACT





Used in AC contactors, relays, electric tool switches, buttons, timers, wall switch, photoelectric switch, micro switch. Features: The good contact conductivity, surface oxidation is not easy, when adding copper (3 – 30%), you can make silver significantly improved resistance to burning ability. Therefore, the incorporation of copper contact material can be applied to the current level of up to 16A. Because the addition of copper, especially copper content is high (eg 10%), the DC can transfer the material under working conditions has declined. In the beginning of the electric field is widely used, it can replace the solid silver contacts.

First performance

Type		AgCu3	AgCu10	AgCu30
Composition %	Ag	95	90	70
	CU	5	10	30
Density g/cm^3		10.4	10.3	10.1
Resistivity μ Ω · cm		1.92	2.08	2.17
Hardness HV-N/mm^2		>600	>650	>700