

补偿电缆 Compensating Cable



热电偶用补偿导线、补偿电缆（含本安型）

Extension and compensating Wires&Cables for Thermocouple (Including Intrinsic safety Type)

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补偿导线与补偿电缆是在一定温度范围内（包括常温）具有与所匹配的热电偶的热电动势值相同的一对或多对带有绝缘层的导线或电缆，用它们连接热电偶与测量装置，以补偿它们与热电偶连接处的温度变化所产生的误差，补偿导线与补偿电缆分为延长型和补偿型两种。

一、生产执行标准

GB/T 4989-2013及JB/T 7495-2014。

二、使用特性

- 1、工作温度
耐热用：最高200℃；
一般用：最高70℃和105℃两种；
- 2、最低敷设温度
氟塑料绝缘和护套线缆：-15℃；
聚氯乙烯绝缘和护套线缆：0℃；
- 3、允许弯曲半径
a) 有铜带屏蔽的补偿电缆，应不小于电缆外径的16倍；
b) 其它结构的补偿电缆，应不小于电缆外径的10倍。

三、型号名称

1、补偿导线

型号 Type	名称 Description
KX-GS-VV	聚氯乙烯绝缘和护套一般用精密级K分度热电偶用补偿导线 Precise grade compensational wire for K Type Thermocouple with PVC insulation and sheath for general purpose
KX-GS-VPV	聚氯乙烯绝缘和护套铜丝编织屏蔽一般用精密级K分度热电偶用屏蔽补偿导线 Precise grade compensational wire for K Type Thermocouple with PVC insulation and sheath, copper wire braided shielding for general purpose
KX-HS-FF	氟塑料绝缘和护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with Fluoroplastic insulation and sheath for heat resistant purpose
KX-HS-FP ₁ F	氟塑料绝缘和护套镀锡铜丝编织屏蔽耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with Fluoroplastic insulation and sheath, tinned copper wire braided shielding for heat resistant purpose
KX-HS-FB	聚四氟乙烯绝缘、玻璃丝编织护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with F4 insulation and glass wire braided sheath for heat resistant purpose
KX-HS-FBP ₁	聚四氟乙烯绝缘，镀锡铜丝编织屏蔽，玻璃丝编织外护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with F46 wrapped insulation glass wire braiding, tinned copper wire braided shielding and glass wire braided outer sheath for heat resistant purpose
KX-HS-FP ₁ V ₁₀₅	氟塑料绝缘镀锡铜丝编织屏蔽耐热105℃聚氯乙烯护套耐热用精密级K分度热电偶用高温补偿导线 Precise grade high temperature compensational wire for K Type Thermocouple with Fluoroplastic insulation, tinned copper wire braided shielding, 105℃ heat resistant and PVC sheath for heat resistant

注：普通级补偿导线型号表示方法，在精密级补偿导线型号基础上去掉字母“S”即可（下同）。

The compensation cable/wire is one or more pairs of wires/cables with insulated layer. It has the same value of thermopower with the matching thermocouple in a certain temperature range (including ambient temperature).which are used to connect the thermocouple and the measuring device, In order to compensate for the error caused by the temperature changes.Compensation wire and compensation cable is divided into two types: extended type and compensation type.

Executive standard

GB/T 4989-2013 & JB/T 7495-2014.

Operational performance

- 1.Working Temperature
Max. 200℃ for heat resistant cable
Max. 70℃&105℃ for common cable
- 2.Min Laying Temperature
Wire & cable with fluoroplastic insulation and sheath:-15℃.
Wire & cable with PVC insulation and sheath:0℃.
- 3.Bending radius
It should be not less than 16 times that of cable outer diameter for compensational cable with copper tape shielding.
It should be not less than 10 times that of cable outer diameter for compensational cable with other structure.

Type and Description

Compensational Wire

2、补偿电缆

Compensating Cable

型号 Type	名 称 Description
KX-GS-VV	聚乙烯绝缘对绞聚乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation and twinning PVC sheath for general purpose
KX-GS-VPV	聚乙烯绝缘对绞铜丝编织分屏蔽聚乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation, twinning copper wire braided individual shielding, PVC sheath for general purpose
KX-GS-VPVP	聚乙烯绝缘对绞铜丝编织分屏蔽和总屏蔽聚乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation, twinning copper wire braided individual & general shielding, PVC sheath for general purpose
KX-GS-VVP	聚乙烯绝缘对绞铜丝编织总屏蔽聚乙烯护套一般用精密级K分度热电偶用补偿电缆 Precise grade compensational cable for K Type Thermocouple with PVC insulation, twinning copper wire braided general shielding, PVC sheath for general purpose
KX-HS-FF	氟塑料绝缘对绞氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation and twinning Fluoroplastic sheath
KX-HS-FP ₁ F	氟塑料绝缘对绞镀锡铜丝编织分屏蔽氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual shielding and Fluoroplastic sheath
KX-HS-FP ₁ FP ₁	氟塑料绝缘对绞镀锡铜丝编织分屏蔽和总屏蔽氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual & general shielding and Fluoroplastic sheath
KX-HS-FFP ₁	氟塑料绝缘对绞镀锡铜丝编织总屏蔽氟塑料护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided general shielding and Fluoroplastic sheath
KX-HS-FV ₁₀₅	氟塑料绝缘对绞耐热105℃聚乙烯护套 精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning 105℃ heat resistant PVC sheath
KX-HS-FP ₁ V ₁₀₅	氟塑料绝缘对绞镀锡铜丝编织分屏蔽耐热105℃聚乙烯护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual shielding 105℃ heat resistant PVC sheath
KX-HS-FP ₁ V ₁₀₅ P ₁	氟塑料绝缘对绞镀锡铜丝编织分屏总屏蔽耐热105℃聚乙烯护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided individual and general shielding 105℃ heat resistant PVC sheath
KX-HS-FV ₁₀₅ P ₁	氟塑料绝缘对绞镀锡铜丝编织总屏蔽耐热105℃聚乙烯护套精密级K分度热电偶用高温补偿电缆 Precise grade high temperature compensational cable for K Type Thermocouple with Fluoroplastic insulation, twinning tinned copper wire braided general shielding 105℃ heat resistant PVC sheath

注：

- 1、其它型号补偿导线如：KC、JX、SC、EX、NC、TX等，只需改写型号的第一项，如：EX-G-VV、TX-H-FVP等；
- 2、需导体为多股软芯时，应在原型号后加“R”表示，如：TX-G-VVPR；
- 3、还可根据需提供聚乙烯（Y）绝缘、交联聚乙烯（YJ）绝缘补偿电缆；
- 4、补偿电缆屏蔽层也可采用金属带绕包形式，如：复合铝带（P3）、复合铜带（P2）；
- 5、需阻燃型补偿电缆，应在原型号前加“ZR-”；
- 6、需铠装型补偿电缆，应在原型号后加“-22”表示钢带铠装；加“-32”表示钢丝铠装；
- 7、需本安型补偿电缆，应在原型号前加“ia-”表示。

- Note: 1.Compensation wire types, such as KC JX SC EX NC TX etc., only need to rewrite the first item of the model, like EX-G-VV and TX-H-FVP etc.
- 2.Suffix “R” is added to the original type for indication of cable with soft multi-strand core.eg. TX-G-VVPR
- 3.We also produce compensational cable with PE (Y) insulation or XLPE (YJ) insulation if needed.
- 4.Shielding layer material of compensational cable includes metallic tape wrapping such as compound aluminum tape (P3) and compound copper tape (P2) .
- 5.Prefix “ZR-” is added to the original type for indication of flame retardant type compensational cable.
- 6.Suffix “-22” is added to the original type for indication of compensational cable with steel tape armor, “-32” for that with steel wire armor.
- 7.Prefix “ia-” is added to the original type for indication of intrinsic safety type compensational cable.

四、规格范围

Specication Range

名称 Name	线芯对数 Pair No. of core	标称截面mm ² Nominal cross section area	线芯结构 Core structure	
			A	R
补偿导线 Compensational wire	1	0.5	1/0.80	7/0.30
		1.0	1/1.13	7/0.43
补偿电缆 Compensational cable	1~19	1.5	1/1.37	7/0.52
		2.5	1/1.76	19/0.41

五、主要技术要求

Main Technical Requirement

产品型号 Type	补偿导线及电缆线芯 Compensational wire & cable core		补偿导线绝缘层着色 Insulation color of compensational wire		配用热电偶分度号 Thermocouple graduation
	正极 Positive pole	负极 Negative pole	正极 Positive pole	负极 Negative pole	
SC or RC	铜 Cu	铜镍0.6 Cu-Ni	红 Red	绿 Green	S (铂铑10-铂) 或R (铂铑13-铂) S (PtRh10-PT) or R (PtRh13-PT)
KCA	铁 Fe	铜镍22 Cu-Ni	红 Red	蓝 Blue	K (镍铬-镍硅) K (NiCr-NiSi)
KCB	铜 Cu	铜镍40 Cu-Ni	红 Red	蓝 Blue	
KX	镍铬10 Ni-Cr 10	镍硅3 Ni-Si	红 Red	黑 Black	
EX	镍铬10 Ni-Cr 10	铜镍45 Cu-Ni	红 Red	棕 Brown	E (镍铬-铜镍) E (NiCr-NiSi)
JX	铁 Fe	铜镍45 Cu-Ni	红 Red	紫 Violet	J (铁-铜镍) J (Fe-CuNi)
TX	铜 Cu	铜镍45 Cu-Ni	红 Red	白 White	T (铜-铜镍) T (Cu-CuNi)
NC	铁 Fe	铜镍18 Cu-Ni	红 Red	灰 Grey	N (镍铬硅-镍硅镁) N (NiCrSi-NiSiMg)
NX	镍铬14硅 Ni-Cr 14 Si	镍硅4镁 NiSi4Mg	红 Red	灰 Grey	

六、补偿导线与补偿电缆使用分类、等级及护套着色

Category, Class grade and Sheath Color of
Compensational Cable and Wire

使用分类 Category	标志代号 Mark code	允差等级及标志 Error allowance grade&mark		护套着色 Sheath color		
		普通级 Common grade	精密级 Precise grade	普通级 Common grade	精密级 Precise grade	本安型 Intrinsic safety
一般用 General	G	省略 Omitted	S	黑色 Black	灰 Grey	蓝 Blue
耐热用 Heat resistance	H			黑色 Black	黄色 Yellow	蓝 Blue

注：在旧标准GB4989-85中，普通级用B表示，精密级用A表示。
本安型在原有型号前增加 “IA”

Note: In early version of GB4989-85 standard, B stands for common.
The "IA" is added before the original model.

七、补偿导线及补偿电缆热电特性及允差表

A stands for precise grade and Error Allowance of
Compensational Cable and Wire

型号 Type	使用分类 Category	导线温度范围℃ Tem range of cable&wire	热电势及允差μV Pyro EMF			热电偶测量端温度℃ Measuring end tem. of thermocouple	20℃时往复电阻值≤Ω/m Reciprocating resistance at 20℃			
			热电势 Pyro EMF	精密级 Precise grade	普通级 Common grade		0.5mm ²	1.0mm ²	1.5mm ²	2.5mm ²
SC&RC	G	0~100	646	±30(±2.5℃)	±60(±5.0℃)	1000	0.10	0.05	0.03	0.02
	H	0~200	1441	/	±60(±5.0℃)					
KCA	G	0~100	4096	±44(±1.1℃)	±88(±2.2℃)	1000	1.40	0.70	0.47	0.28
	H	0~200	8138			900				
KCB	G	0~100	4096			900	1.04	0.52	0.35	0.21
KX	G	-20~100	4096			900	2.20	1.10	0.73	0.44
	H	-25~200	8138			900				

EX	G	-20~100	6319	$\pm 81(\pm 1.1^{\circ}\text{C})$	$\pm 138(\pm 1.7^{\circ}\text{C})$	500	2.50	1.25	0.83	0.50
	H	-25~200	13421			500				
JX	G	-20~100	6319	$\pm 62(\pm 1.1^{\circ}\text{C})$	$\pm 123(\pm 2.0^{\circ}\text{C})$	500	1.30	0.65	0.43	0.26
	H	-25~200	13421			500				
TX	G	-20~100	6319	$\pm 30(\pm 0.5^{\circ}\text{C})$	$\pm 60(\pm 1.0^{\circ}\text{C})$	300	1.04	0.52	0.35	0.21
	H	-25~200	13421			300				
NC	G	0~100	6319	$\pm 48(\pm 0.8^{\circ}\text{C})$	$\pm 90(\pm 1.5^{\circ}\text{C})$	900	1.50	0.75	0.50	0.30
	H	0~200	13421			900				
NX	G	-20~100	6319	$\pm 43(\pm 1.1^{\circ}\text{C})$	$\pm 86(\pm 2.2^{\circ}\text{C})$	900	2.86	1.43	0.95	0.57
	H	-25~200	13421			900				

八、其它参数指标

Other Parameter Indices

项目 Item	单位 Unit	参数指标 Parameter Indices	
		PVC绝缘PVC insulation	PE、XLPE、F46&F绝缘PE、XLPE、F46&F insulation
绝缘电阻 Insulated resistance	MΩ.km	25	100
电压试验 Voltage test	V/1min	500	
阻燃性能 Flame retardant performance	符合GB/T19666-2019阻燃标准中A、B、C类规定。 Meet the requirement of flame retardance of category A, B,C stipulated in GB/T19666-2019 standard.		

九、规格尺寸

Specification and Size

1、补偿导线；

Compensational Wire

芯数×标称截面 mm ² Core No.*nominal cross section area	导体种类 Conductor	最大外径 mm Max OD			
		VV	VPV	FF	FP1F
2×0.5	A	3.7×6.4	4.7×7.4	2.6×4.6	3.2×5.2
	R	3.9×6.6	4.9×7.6	2.8×4.8	3.4×5.4
2×1.0	A	5.0×7.7	6.0×8.7	3.0×5.3	3.6×5.9
	R	5.1×8.0	6.1×9.0	3.1×5.6	3.7×6.2
2×1.5	A	5.2×8.3	6.2×9.3	3.2×5.8	3.8×6.4
	R	5.5×8.7	6.5×9.7	3.4×6.2	4.0×6.8
2×2.5	A	5.7×9.3	6.7×10.3	3.6×6.7	4.2×7.3
	R	5.9×9.8	6.9×10.8	4.0×7.3	4.6×7.9

2、补偿电缆；

Compensational Cable

芯数×标称截面mm ² Core No.*nominal cross section area	导体种类 Conductor	最大外径 mm Max OD					
		VV	VPV	FV	FP1V	FF	FP1F
1×2×0.5	A	6.9	7.4	6.7	7.2	5.0	5.6
	R	7.3	7.7	7.0	7.4	5.2	5.8
1×2×1.0	A	8.7	9.1	7.4	7.8	5.8	6.3
	R	8.9	9.4	7.6	8.3	6.1	6.8
1×2×1.5	A	9.1	9.8	7.9	8.4	6.4	6.9
	R	9.6	10.5	8.1	8.8	6.6	7.4
1×2×2.5	A	10.0	10.7	8.8	9.2	7.4	7.8
	R	10.7	11.3	9.2	10.1	7.8	8.7
2×2×0.5	A	10.3	11.4	9.4	10.5	7.9	9.7
	R	10.6	11.5	10.0	11.0	8.1	10.0
2×2×1.0	A	13.0	14.5	10.5	12.2	9.0	11.0
	R	13.3	15.4	11.5	12.9	9.5	11.7

2×2×1.5	A	13.6	15.5	11.3	13.1	9.9	11.5
	R	14.5	16.5	12.5	14.4	10.7	12.5
2×2×2.5	A	15.0	17.5	12.8	14.5	11.6	13.6
	R	16.0	18.6	14.0	16.0	12.4	14.5
3×2×0.5	A	10.6	12.1	9.8	11.7	8.4	10.5
	R	11.2	12.7	11.0	12.1	9.0	10.9
3×2×1.0	A	14.4	15.8	12.0	13.0	9.8	11.8
	R	14.7	16.3	12.5	13.6	10.5	12.4
3×2×1.5	A	15.2	17.1	12.5	14.5	10.8	13.0
	R	16.0	17.8	13.5	15.3	11.6	13.8
3×2×2.5	A	16.7	18.6	14.0	16.1	12.3	14.5
	R	17.9	19.8	15.5	17.0	13.6	15.5
4×2×0.5	A	11.3	12.9	10.5	12.5	9.0	11.3
	R	12.0	13.5	11.5	13.0	9.6	12.0
4×2×1.0	A	15.4	16.9	13.0	14.5	10.6	12.6
	R	16.2	17.4	13.5	15.5	11.5	13.5
4×2×1.5	A	16.3	18.3	13.5	15.5	11.7	14.0
	R	17.5	19.1	14.5	16.5	12.3	16.0
4×2×2.5	A	18.0	20.6	15.5	18.0	13.6	15.5
	R	19.3	21.9	17.5	19.0	14.7	17.0
5×2×0.5	A	12.7	15.0	11.7	14.0	10.0	12.0
	R	13.4	15.8	12.5	14.5	10.7	13.0
5×2×1.0	A	16.5	18.0	13.5	15.5	11.9	14.0
	R	17.0	19.4	14.5	16.9	13.0	15.0
5×2×1.5	A	17.3	20.0	15.1	17.2	13.0	15.0
	R	18.3	21.0	15.8	18.2	14.3	16.0
5×2×2.5	A	20.0	23.0	18.5	19.1	15.5	17.0
	R	21.0	24.5	19.5	20.5	16.7	18.5
6×2×0.5	A	13.5	15.5	12.5	15.0	11.0	13.0
	R	14.5	16.0	13.5	15.5	11.5	14.0
6×2×1.0	A	17.5	20.0	14.5	17.0	13.0	15.0
	R	18.5	21.0	15.5	18.0	14.0	16.0
6×2×1.5	A	19.5	21.0	15.5	18.5	14.0	16.0
	R	20.0	22.0	17.0	19.5	15.0	17.5
6×2×2.5	A	21.5	23.0	18.5	21.0	16.5	18.5
	R	23.0	24.5	20.0	22.5	18.0	19.5
7×2×0.5	A	14.0	15.5	12.5	15.0	11.0	13.0
	R	14.5	16.0	13.5	15.5	11.5	14.0
7×2×1.0	A	18.0	20.0	14.5	17.0	13.0	15.0
	R	18.5	21.0	15.5	18.0	14.0	16.0
7×2×1.5	A	19.0	21.0	15.5	18.5	14.0	16.0
	R	20.5	22.0	17.0	19.5	15.0	17.5
7×2×2.5	A	21.5	22.0	18.5	20.5	16.5	18.5
	R	23.0	23.0	20.0	21.5	18.0	19.5
8×2×0.5	A	15.0	17.0	14.0	16.5	12.5	14.5
	R	15.5	17.5	15.6	17.5	13.0	15.5
8×2×1.0	A	17.5	22.0	16.0	18.5	14.5	16.5
	R	20.0	23.0	17.0	19.5	15.5	17.5
8×2×1.5	A	21.0	23.0	17.0	20.0	15.5	18.0
	R	22.5	24.0	19.0	21.0	17.0	19.0
8×2×2.5	A	23.5	25.5	20.5	22.5	18.0	20.0
	R	25.0	27.5	22.0	24.0	19.5	22.0
9×2×0.5	A	16.0	18.0	15.5	17.5	13.5	15.5
	R	16.5	18.5	16.4	18.5	14.5	16.5
9×2×1.0	A	21.5	23.0	18.0	19.5	15.5	17.5
	R	22.5	24.0	19.3	21.0	16.5	18.5
9×2×1.5	A	22.5	25.0	19.0	21.5	17.0	19.5
	R	23.5	26.0	20.5	24.0	18.5	20.0
9×2×2.5	A	25.5	27.5	22.0	24.5	20.0	22.0
	R	27.0	29.5	24.0	26.0	21.5	23.5
10×2×0.5	A	17.0	19.5	15.5	18.5	14.0	16.0
	R	17.5	20.0	16.5	19.0	15.0	17.0
10×2×1.0	A	22.0	24.0	18.1	21.0	16.0	18.5
	R	23.0	25.5	19.4	22.0	17.5	19.5

芯数×标称截面 mm ² Core No.*nominal cross section area	导体种类 Conductor	最大外径 mm Max OD					
		VV	VPV	FV	FP1V	FF	FP1F
10×2×1.5	A	23.5	26.0	19.8	22.5	17.5	20.0
	R	25.0	27.5	21.0	23.5	19.0	21.5
10×2×2.5	A	26.5	29.0	22.5	25.0	20.5	23.0
	R	28.5	31.0	24.5	26.5	22.0	24.5
12×2×0.5	A	17.5	20.5	16.5	19.0	14.5	17.0
	R	18.0	21.0	17.6	20.0	15.5	18.0
12×2×1.0	A	23.0	25.5	19.4	22.0	17.0	19.5
	R	24.0	27.0	20.5	23.0	18.5	20.5
12×2×1.5	A	25.0	27.5	21.0	23.5	18.5	21.0
	R	26.5	29.0	22.5	25.0	20.0	22.5
12×2×2.5	A	28.0	30.0	24.0	26.0	21.5	24.0
	R	30.0	32.0	26.0	28.0	22.5	26.0
14×2×0.5	A	18.5	22.0	17.5	20.5	/	/
	R	19.0	22.5	18.9	21.5	/	/
14×2×1.0	A	24.5	27.5	20.5	23.5	/	/
	R	25.5	29.0	22.0	25.0	/	/
14×2×1.5	A	27.0	29.0	22.0	25.0	/	/
	R	28.5	30.5	24.0	26.5	/	/
14×2×2.5	A	30.0	32.0	26.0	28.0	/	/
	R	32.0	34.0	28.0	30.0	/	/
16×2×0.5	A	19.5	22.5	18.5	21.0	/	/
	R	20.0	23.5	19.7	22.5	/	/
16×2×1.0	A	25.5	28.5	21.5	24.5	/	/
	R	27.0	30.0	23.0	26.0	/	/
16×2×1.5	A	28.0	30.5	23.0	26.0	/	/
	R	29.5	32.5	25.0	27.5	/	/
16×2×2.5	A	31.0	33.5	27.0	29.0	/	/
	R	33.0	36.0	29.0	31.0	/	/
19×2×0.5	A	21.0	24.5	20.0	23.0	/	/
	R	22.0	25.5	21.0	24.0	/	/
19×2×1.0	A	28.0	31.0	23.0	26.5	/	/
	R	29.5	32.5	24.5	28.0	/	/
19×2×1.5	A	33.0	33.0	25.0	28.0	/	/
	R	32.0	35.0	27.0	30.0	/	/
19×2×2.5	A	33.5	36.5	29.0	31.5	/	/
	R	36.0	39.0	31.5	34.0	/	/

订货须知:

- 1、订货时务必注明产品型号、规格、导体种类（A为独股导体，R为多股软导体）、数量等；
2、根据双方协议允许任何长度交货；长度计量误差不超过±0.5%。

Note for ordering:

- 1.When ordering, be sure to specify the product model, specification, type of conductor(A is single strand conductor, R is multi strand flexible conductor), quantity, etc.
2.Allow any length of delivery according to the agreement between the parties.The length measurement error is not more than ±0.5%.