

Silicone Rubber Special Control Cable

◆ Standard

Silicone Rubber Special Control Cable is manufactured according to Q/320412HLC010.

◆ Application

This product is applicable for signal transmission line of electrical instrument and automatic control system and kinds of connecting wire of mobile electrical appliance with the rated voltage up to and including 450/750V.

◆ Product Property

- (1) Operating temperature: long-term working temperature is no more than 200°C
- (2) Rated voltage U_0/U : 450/750V
- (3) Min environment temperature: Fixed laying -60°C; Non- fixed laying -20°C
- (4) Min bending radius: no less than 6 times of cable outer diameter(non-armored or non-shield), 12 times of cable outer diameter(armored and shield)

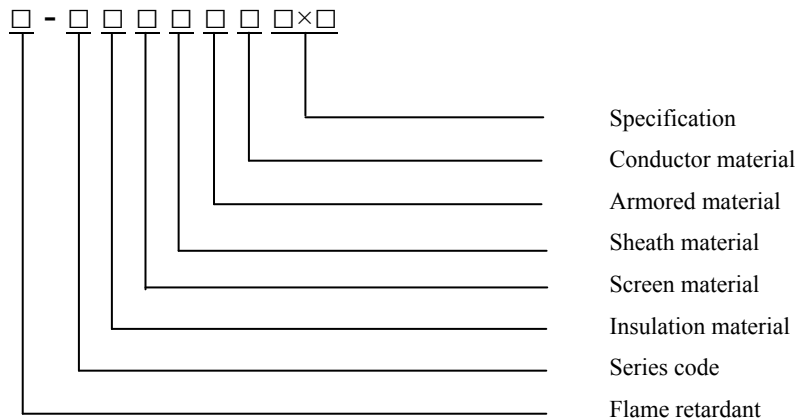
◆ Code and Explanation

1. Code and Explanation (Table 1)

Table 1

Item	Code	Explanation
Series code	HCK	Special control cables
Insulated material	G	Silicone
	F	Fluoroplastic (FEP)
Screened material	P	Copper wire braid
	P ₁	Tinned copper wire braid
	P ₃	Aluminum/plastic laminate-tape screen
Sheathed material	G	Silicone
Conductor material	/	Copper wire (omitted)
	X	Tinned copper wire
Conductor type	B	Stranded conductor
	R	Multi-stranded flexible conductor
Size	Unit core× conductor section(N×S)	
	N: 2, 3, 4, 5.....37	
Sectional area of conductor	S: 0.5, 0.75, 1.0, 1.5, 2.5, 4, 6, 10(mm ²)	

2. Type Explanation



Example:

- 19 cores cross section area is 1.0mm² class 2 conductor tinned wire core silicone rubber insulated and sheathed special control cable shows: HCGZ2BXC DL 19×1.0mm².
- 19 cores cross section area is 1.0mm² class 5 conductor tinned copper wire braid silicone rubber insulated and sheathed special control cable shows: HCGZ2P1XC DL 19×1.0mm².
- 19 cores cross section area is 1.0mm², tinned conductor silicone rubber insulated and sheathed special control cable shows: HCGZ2XC DL 19×1.0mm².
- 19 cores cross section area is 1.0mm² class 2 tinned copper conductor fluoroplastic insulated silicone rubber sheathed aluminum/plastic laminate tape screened special control cable shows: HCFGZP3BXC DL 19×1.0mm².

◆ Technical Data

Table 2

Item	Technical index										
	0.5mm ²		0.75mm ²		1.0mm ²		1.5mm ²		2.5mm ²		
Conductor DC resistance 20°CΩ/km	Type	Non-tinned	Tinned	Non-tinned	Tinned	Non-tinned	Tinned	Non-tinned	Tinned	Non-tinned	Tinned
	A,B	36.0	36.7	24.5	24.8	18.1	18.2	12.1	12.2	7.41	7.56
	R	39.0	40.1	26.0	26.7	19.5	20.0	13.3	13.7	7.98	8.21
Test voltage (V/5min)	3000										
Insulation resistance(MΩ•km)	20°C ≥50										

◆ Type and Name, Structure and Diameter

1. Type and Name (Table 3)

Table 3

Type	Name
HCGZ2CDL	Copper conductor silicone rubber insulated and sheathed control cable
HCGZ2PCDL	Copper conductor silicone rubber insulated and sheathed copper wire braid control cable
HCGZ2XC DL	Tinned conductor core silicone rubber insulated and sheathed control cable
HCGZ2PXC DL	Tinned copper conductor silicone insulated and sheathed copper wire braid control cable
HCFGZCDL	Copper conductor fluoroplastic insulated silicone rubber sheathed control cable

Note: To be added before the type of the flame retardant grade “ZR”.

2. Structure and Diameter (Table 4)

Table 4

Core× nominal section (mm ²)	Conductor type		Max outer diameter (mm)		Calculated weight (kg/km)	
	Type	Structure No./diameter(mm)	HCGZ2CDL	HCGZ2PCDL	HCGZ2CDL	HCGZ2PCDL
			HCGZ2XCDL	HCGZ2P3CDL	HCGZ2XCDL	HCGZ2P3CDL
2×0.5	B	7/0.30	7.4	7.7	48.0	67.0
	R	16/0.20				
2×0.75	B	7/0.37	7.8	8.1	55.0	77.0
	R	24/0.20				
2×1.0	B	7/0.43	8.0	8.3	59.0	81.0
	R	32/0.20				
2×1.5	B	7/0.52	9.4	9.7	92.0	120.0
	R	30/0.25				
2×2.5	B	19/0.41	10.6	10.9	134.0	167.0
	R	49/0.25				
3×0.5	B	7/0.30	7.7	8.1	58.0	83.0
	R	16/0.20				
3×0.75	B	7/0.37	8.2	8.6	68.0	98.0
	R	24/0.20				
3×1.0	B	7/0.73	8.4	8.8	81.0	121.0
	R	32/0.20				
3×1.5	B	7/0.52	9.9	10.3	117.0	167.0
	R	30/0.25				
3×2.5	B	19/0.41	11.2	11.6	155.0	202.0
	R	49/0.25				
4×0.5	B	7/0.30	9.3	9.7	85.0	116.0
	R	16/0.20				
4×0.75	B	7/0.37	9.8	10.2	101.0	135.0
	R	24/0.20				
4×1.0	B	7/0.43	10.0	10.4	124.0	159.0
	R	32/0.20				
4×1.5	B	7/0.52	11.7	12.1	163.0	210.0
	R	30/0.25				
4×2.5	B	19/0.41	13.2	13.6	216.0	268.0
	R	49/0.25				
5×0.5	B	7/0.30	9.9	10.3	99.0	151.0
	R	16/0.20				
5×0.75	B	7/0.37	10.5	10.9	117.0	155.0
	R	24/0.20				
5×1.0	B	7/0.43	10.8	11.2	135.0	174.0
	R	32/0.20				
5×1.5	B	7/0.52	12.6	13.0	192.0	242.0
	R	30/0.25				

Core× nominal section (mm ²)	Conductor type		Max outer diameter (mm)		Calculated weight (kg/km)	
	Type	Structure No./diameter(mm)	HCGZ2CDL	HCGZ2PCDL	HCGZ2CDL	HCGZ2PCDL
			HCGZ2XCDL	HCGZ2P3CDL	HCGZ2XCDL	HCGZ2P3CDL
5×2.5	B	19/0.41	14.3	14.7	258.0	317.0
	R	49/0.25				
6×0.5	B	7/0.30	10.2	10.6	111.0	147.0
	R	16/0.20				
6×0.75	B	7/0.37	10.7	11.1	129.0	168.0
	R	24/0.20				
6×1.0	B	7/0.43	11.0	11.4	150.0	190.0
	R	32/0.20				
6×1.5	B	7/0.52	13.0	13.4	220.0	277.0
	R	30/0.25				
6×2.5	B	19/0.41	14.6	14.9	291.0	346.0
	R	49/0.25				
7×0.5	B	7/0.30	10.6	11.0	122.0	160.0
	R	16/0.20				
7×0.75	B	7/0.37	11.2	11.6	144.0	186.0
	R	24/0.20				
7×1.0	B	7/0.43	11.5	11.9	168.0	211.0
	R	32/0.20				
7×1.5	B	7/0.52	13.6	14.0	246.0	301.0
	R	30/0.25				
7×2.5	B	19/0.41	15.4	15.8	351.0	416.0
	R	49/0.25				
8×0.5	B	7/0.30	11.3	11.7	137.0	179.0
	R	16/0.20				
8×0.75	B	7/0.37	11.9	12.3	160.0	205.0
	R	24/0.20				
8×1.0	B	7/0.43	12.3	12.7	189.0	237.0
	R	32/0.20				
8×1.5	B	7/0.52	14.6	15.0	279.0	339.0
	R	30/0.25				
8×2.5	B	19/0.41	16.5	16.9	371.0	443.0
	R	49/0.25				
9×0.5	B	7/0.30	12.1	12.5	150.0	197.0
	R	16/0.20				
9×0.75	B	7/0.37	12.9	13.3	180.0	231.0
	R	24/0.20				
9×1.0	B	7/0.43	13.3	13.7	211.0	264.0
	R	32/0.20				
9×1.5	B	7/0.52	15.8	16.2	308.0	376.0
	R	30/0.25				

Core× nominal section (mm ²)	Conductor type		Max outer diameter (mm)		Calculated weight (kg/km)	
	Type	Structure No./diameter(mm)	HCGZ2CDL	HCGZ2PCDL	HCGZ2CDL	HCGZ2PCDL
			HCGZ2XCDL	HCGZ2P3CDL	HCGZ2XCDL	HCGZ2P3CDL
9×2.5	B	19/0.41	18.0	18.4	414.0	494.0
	R	49/0.25				
10×0.5	B	7/0.30	12.8	13.2	165.0	216.0
	R	16/0.20				
10×0.75	B	7/0.37	13.6	14.0	198.0	253.0
	R	24/0.20				
10×1.0	B	7/0.43	14.0	14.3	239.0	297.0
	R	32/0.20				
10×1.5	B	7/0.52	16.8	17.2	340.0	413.0
	R	30/0.25				
10×2.5	B	19/0.41	19.2	19.6	459.0	650.0
	R	49/0.25				
11×0.5	B	7/0.30	13.1	13.5	174.0	226.0
	R	16/0.20				
11×0.75	B	7/0.37	14.0	14.4	210.0	267.0
	R	24/0.20				
11×1.0	B	7/0.43	14.4	14.8	246.0	306.0
	R	32/0.20				
11×1.5	B	7/0.52	17.3	17.7	368.0	444.0
	R	30/0.25				
11×2.5	B	19/0.41	19.8	20.2	498.0	587.0
	R	49/0.25				
12×0.5	B	7/0.30	13.1	13.5	183.0	235.0
	R	16/0.20				
12×0.75	B	7/0.37	14.0	14.4	221.0	278.0
	R	24/0.20				
12×1.0	B	7/0.43	14.4	14.8	260.0	320.0
	R	32/0.20				
12×1.5	B	7/0.52	17.3	17.7	391.0	467.0
	R	30/0.25				
12×2.5	B	19/0.41	19.8	20.2	531.0	620.0
	R	49/0.25				
13×0.5	B	7/0.30	13.7	14.1	179.0	234.0
	R	16/0.20				
13×0.75	B	7/0.37	14.6	15.0	237.0	298.0
	R	24/0.20				
13×1.0	B	7/0.43	15.0	15.4	277.0	340.0
	R	32/0.20				
13×1.5	B	7/0.52	18.1	18.5	419.0	500.0
	R	30/0.25				

Core× nominal section (mm ²)	Conductor type		Max outer diameter (mm)		Calculated weight (kg/km)	
	Type	Structure No./diameter(mm)	HCGZ2CDL	HCGZ2PCDL	HCGZ2CDL	HCGZ2PCDL
			HCGZ2XCDL	HCGZ2P3CDL	HCGZ2XCDL	HCGZ2P3CDL
13×2.5	B	19/0.41	20.8	21.2	572.0	667.0
	R	49/0.25				
14×0.5	B	7/0.30	13.7	14.1	187.0	243.0
	R	16/0.20				
14×0.75	B	7/0.37	14.6	15.0	278.0	309.0
	R	24/0.20				
14×1.0	B	7/0.43	15.0	15.4	291.0	354.0
	R	32/0.20				
14×1.5	B	7/0.52	18.1	18.5	442.0	523.0
	R	30/0.25				
14×2.5	B	19/0.41	20.8	21.2	605.0	700.0
	R	49/0.25				
15×0.5	B	7/0.30	14.3	14.7	200.0	260.0
	R	16/0.20				
15×0.75	B	7/0.37	15.3	15.7	264.0	328.0
	R	24/0.20				
15×1.0	B	7/0.43	15.8	16.2	314.0	381.0
	R	32/0.20				
15×1.5	B	7/0.52	19.0	19.4	470.0	556.0
	R	30/0.25				
15×2.5	B	19/0.41	21.9	22.3	642.0	744.0
	R	49/0.25				
16×0.5	B	7/0.30	14.3	14.7	209.0	269.0
	R	16/0.20				
16×0.75	B	7/0.37	15.3	15.7	275.0	339.0
	R	24/0.20				
16×1.0	B	7/0.43	15.8	16.2	325.0	392.0
	R	32/0.20				
16×1.5	B	7/0.52	19.0	19.4	493.0	579.0
	R	30/0.25				
16×2.5	B	19/0.41	21.9	22.3	675.0	777.0
	R	49/0.25				
17×0.5	B	7/0.30	12.8	13.2	241.0	304.0
	R	16/0.20				
17×0.75	B	7/0.37	13.6	14.0	291.0	370.0
	R	24/0.20				
17×1.0	B	7/0.43	14.0	14.4	327.0	364.0
	R	32/0.20				
17×1.5	B	7/0.52	20.0	20.4	561.0	652.0
	R	30/0.25				

Core× nominal section (mm ²)	Conductor type		Max outer diameter (mm)		Calculated weight (kg/km)	
	Type	Structure No./diameter(mm)	HCGZ2CDL	HCGZ2PCDL	HCGZ2CDL	HCGZ2PCDL
			HCGZ2XCDL	HCGZ2P3CDL	HCGZ2XCDL	HCGZ2P3CDL
17×2.5	B	19/0.41	23.0	23.4	719.0	727.0
	R	49/0.25				
18×0.5	B	7/0.30	12.8	13.2	250.0	313.0
	R	16/0.20				
18×0.75	B	7/0.37	13.6	14.0	302.0	381.0
	R	24/0.20				
18×1.0	B	7/0.43	14.0	14.4	341.0	378.0
	R	32/0.20				
18×1.5	B	7/0.52	20.0	20.4	584.0	675.0
	R	30/0.25				
18×2.5	B	19/0.41	23.0	23.4	752.0	760.0
	R	49/0.25				
19×0.5	B	7/0.30	12.8	13.2	259.0	322.0
	R	16/0.20				
19×0.75	B	7/0.37	13.6	14.0	313.0	392.0
	R	24/0.20				
19×1.0	B	7/0.43	14.0	14.4	355.0	392.0
	R	32/0.20				
19×1.5	B	7/0.52	20.0	20.4	607.0	698.0
	R	30/0.25				
19×2.5	B	19/0.41	23.0	23.4	785.0	793.0
	R	49/0.25				
24×0.5	B	7/0.30	18.2	18.6	368.0	443.0
	R	16/0.20				
24×0.75	B	7/0.37	19.4	19.8	432.0	514.0
	R	24/0.20				
24×1.0	B	7/0.43	20.0	20.4	511.0	596.0
	R	32/0.20				
24×1.5	B	7/0.52	24.2	24.6	770.0	879.0
	R	30/0.25				
24×2.5	B	19/0.41	27.8	28.2	1048.0	1178.0
	R	49/0.25				
27×0.5	B	7/0.30	18.5	18.9	388.0	467.0
	R	16/0.20				
27×0.75	B	7/0.37	19.8	20.2	532.0	616.0
	R	24/0.20				
27×1.0	B	7/0.43	20.4	20.8	558.0	645.0
	R	32/0.20				
27×1.5	B	7/0.52	24.7	25.1	845.0	957.0
	R	30/0.25				

Core× nominal section (mm ²)	Conductor type		Max outer diameter (mm)		Calculated weight (kg/km)	
	Type	Structure No./diameter(mm)	HCGZ2CDL	HCGZ2PCDL	HCGZ2CDL	HCGZ2PCDL
			HCGZ2XCDL	HCGZ2P3CDL	HCGZ2XCDL	HCGZ2P3CDL
27×2.5	B	19/0.41	28.4	28.8	1154.0	1292.0
	R	49/0.25				
30×0.5	B	7/0.30	19.1	19.5	421.0	499.0
	R	16/0.20				
30×0.75	B	7/0.37	20.4	20.8	509.0	598.0
	R	24/0.20				
30×1.0	B	7/0.43	21.0	21.4	604.0	687.0
	R	32/0.20				
30×1.5	B	7/0.52	25.5	25.9	922.0	1037.0
	R	30/0.25				
30×2.5	B	19/0.41	29.4	29.8	1261.0	1404.0
	R	49/0.25				
37×0.5	B	7/0.30	20.7	21.1	496.0	583.0
	R	16/0.20				
37×0.75	B	7/0.37	22.1	22.5	602.0	690.0
	R	24/0.20				
37×1.0	B	7/0.43	22.8	23.2	722.0	810.0
	R	32/0.20				
37×1.5	B	7/0.52	27.8	28.2	1104.0	1234.0
	R	30/0.25				
37×2.5	B	19/0.41	32.1	32.5	1519.0	1672.0
	R	49/0.25				

Note: HCFGZXC DL HCFGZBDL type external diameter as the same above.

◆ Delivery Length

Under the consultation of any length to delivery.