

## K23 LSZH Subway Signalling Cables for Metro/Local Trains/Tramlines

### Applications

The cables are designed for remote control and teletransmission in underground railway networks. The cables can be laid in channel, cable tray, or on hook supports, along suburban railway lines electrified at maximum 1500V DC.



### Standards

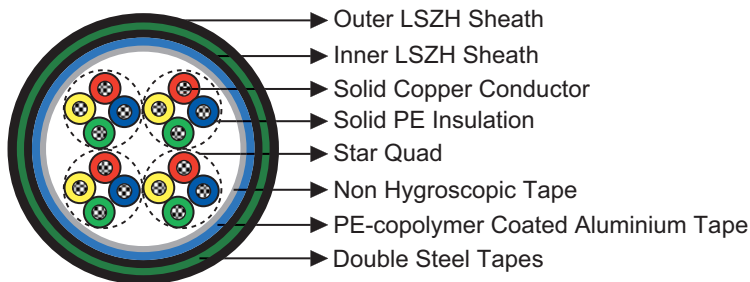
- NF F 55-623

### Construction

- Conductors: Copper wire, 0.6, 0.8, 1.0 or 1.2 mm nominal diameter.

- Insulation: Solid polyethylene.

- Cabling Element: Four conductors are twisted to form a star quad. For 1 & 4 pair cables, conductors shall be twisted in pairs.



- Stranding: Quads are stranded in helically laid concentric layers or units to form the cable core.

- Core Wrapping: Plastic tape(s) with overlapping.

- Moisture Barrier: One laminated sheath made of aluminium tape coated with PE-Copolymer on at least one side is applied with longitudinally overlap.

- Inner Sheath: LSZH fire retardant compound.

- Armour: Two helically applied steel tapes.

- Outer Sheath: LSZH fire retardant compound.

### Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	0.6	0.8	1.0	1.2
Maximum Average DC Conductor Resistance	Ω/km	64.0	36.0	23.0	16.0
Minimum Insulation Resistance @500 V DC (3min)	MΩ.km	5000	5000	5000	5000
Maximum Mutual Capacitance @1000Hz (AC)	nF/km	57.5	57.5	57.5	57.5
Maximum Capacitance Unbalance @800Hz					
K <sub>1</sub> (side to side)	pF/500m	435	435	435	435
K <sub>9-12</sub> (quad to quad)	pF/500m	220	220	220	220
Operating Voltages	V	200	400	500	750
Maximum Permissible Current	A	0.35	0.63	1.0	1.4
Dielectric Strength (DC voltage 1min)					
Conductor to Conductor	V	1500	2000	3000	3000
Conductor to Screen	V	1500	1500	1500	1500

### Mechanical and Thermal Properties

Minimum Bending Radius: 8×OD (static); 16×OD (dynamic)

Temperature Range: -40°C to +60°C (during operation); -20°C to +50°C (during installation)



## Dimensions and Weight

Cable Code	Number of Pairs	Spare pairs	Minimum Sheath Thickness mm		Maximum Overall Diameter mm	Nominal Weight kg/km
			Inner	Outer		
0.6mm Conductor, 0.96mm Insulated Wire (6/10)						
RS/K23-2Y(L)HBH-2P0.6	2	-	1.0	1.0	10.5	130
RS/K23-2Y(L)HBH-4P0.6	4	-	1.0	1.0	14.0	171
RS/K23-2Y(L)HBH-8P0.6	8	-	1.0	1.0	16.5	215
RS/K23-2Y(L)HBH-14P0.6	14	-	1.0	1.2	17.5	290
RS/K23-2Y(L)HBH-20P0.6	20	-	1.0	1.2	18.5	350
RS/K23-2Y(L)HBH-28P0.6	28	-	1.0	1.4	21.0	441
RS/K23-2Y(L)HBH-38P0.6	38	-	1.0	1.4	21.5	533
RS/K23-2Y(L)HBH-56P0.6	56	-	1.0	1.4	23.0	700
RS/K23-2Y(L)HBH-84P0.6	84	-	1.0	1.6	28.0	970
RS/K23-2Y(L)HBH-112P0.6	112	-	1.0	1.6	30.5	1190
RS/K23-2Y(L)HBH-168P0.6	168	2	1.0	1.8	38.0	1847
RS/K23-2Y(L)HBH-224P0.6	224	2	1.0	2.0	44.0	2675
RS/K23-2Y(L)HBH-280P0.6	280	2	1.0	2.0	51.0	3185
RS/K23-2Y(L)HBH-336P0.6	336	4	1.0	2.0	57.0	3680
RS/K23-2Y(L)HBH-392P0.6	392	4	1.0	2.0	58.5	4168
RS/K23-2Y(L)HBH-448P0.6	448	4	1.0	2.2	67.0	4647
RS/K23-2Y(L)HBH-784P0.6	784	4	1.0	2.2	90.5	7406
RS/K23-2Y(L)HBH-896P0.6	896	6	1.0	2.2	102.5	8315
0.8mm Conductor, 1.27 mm Insulated Wire (8/10)						
RS/K23-2Y(L)HBH-2P0.8	2	-	1.0	1.0	11.5	155
RS/K23-2Y(L)HBH-4P0.8	4	-	1.0	1.0	15.5	216
RS/K23-2Y(L)HBH-8P0.8	8	-	1.0	1.2	17.5	298
RS/K23-2Y(L)HBH-14P0.8	14	-	1.0	1.4	20.5	412
RS/K23-2Y(L)HBH-20P0.8	20	-	1.0	1.4	23.0	512
RS/K23-2Y(L)HBH-28P0.8	28	-	1.0	1.4	24.5	637
RS/K23-2Y(L)HBH-38P0.8	38	-	1.0	1.6	26.5	805
RS/K23-2Y(L)HBH-56P0.8	56	-	1.0	1.6	32.0	1096
RS/K23-2Y(L)HBH-84P0.8	84	-	1.0	1.8	39.0	1504
RS/K23-2Y(L)HBH-112P0.8	112	-	1.0	1.8	40.5	1880
1.0mm Conductor, 1.8mm Insulated Wire (10/10)						
RS/K23-2Y(L)HBH-2P1	2	-	1.0	1.0	12.0	195
RS/K23-2Y(L)HBH-4P1	4	-	1.0	1.2	17.5	298
RS/K23-2Y(L)HBH-8P1	8	-	1.0	1.4	20.5	431
RS/K23-2Y(L)HBH-14P1	14	-	1.0	1.4	23.5	587
RS/K23-2Y(L)HBH-20P1	20	-	1.0	1.6	25.0	762
RS/K23-2Y(L)HBH-28P1	28	-	1.0	1.6	29.0	981
RS/K23-2Y(L)HBH-38P1	38	-	1.0	1.6	31.5	1243
RS/K23-2Y(L)HBH-56P1	56	-	1.0	1.8	38.5	1683
RS/K23-2Y(L)HBH-84P1	84	-	1.0	2.0	46.5	2340
RS/K23-2Y(L)HBH-112P1	112	-	1.0	2.0	51.5	2944
1.2mm Conductor, 2.0mm Insulated Wire (12/10)						
RS/K23-2Y(L)HBH-1P1.2	1	-	1.0	1.2	14.0	188
RS/K23-2Y(L)HBH-2P1.2	2	-	1.0	1.2	14.5	230
RS/K23-2Y(L)HBH-4P1.2	4	-	1.0	1.4	20.0	357
RS/K23-2Y(L)HBH-8P1.2	8	-	1.0	1.4	24.0	509
RS/K23-2Y(L)HBH-14P1.2	14	-	1.0	1.4	25.0	710
RS/K23-2Y(L)HBH-20P1.2	20	-	1.0	1.6	29.0	950
RS/K23-2Y(L)HBH-28P1.2	28	-	1.0	1.6	31.5	1213



Impact Resistant



Mineral Oil Resistant



Acid & Alkaline Resistant



Laid In conduit



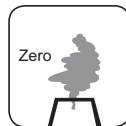
Flame Retardant

NF C32-070-2.1(C2)  
IEC 60332-1/EN 50265-2-1



Fire Retardant

NF C32-070-2.2(C1)  
IEC 60332-3/EN 50266



Zero Halogen

IEC 60754-1/NF C20-454  
EN 50267-2-1



Low Smoke Emission

IEC 61034/NFC20-902  
EN 50268/NF C32-073



Low Corrosivity

EN 50267-2-2/NF C32-074  
IEC 60754-2/NF C20-453



Low Toxicity

