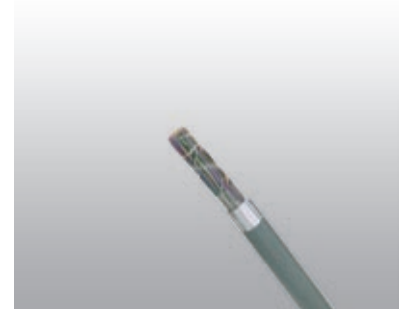


G7622 Trackside Communications Cables

Applications

The cables are designed for installation in trackside bracket runs and for use within railway equipment rooms within open locations (type 1) or in subsurface tunnels and underground locations (type 2).

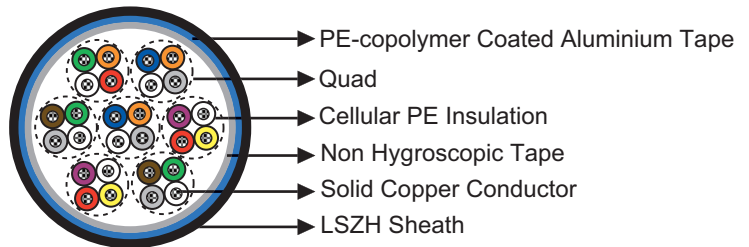


Standards

- LUL Spec G7622 A1 type 1 (for PVC sheath)
- LUL Spec G7622 A1 type 2 (for LSZH sheath)

Construction

- Conductors: Solid plain copper, 0.63/0.9 mm nominal diameter.



- Insulation: Cellular polyethylene.
- Cabling Element: Four insulated conductors are twisted together to form a quad.
- Stranding: Conductors are helically stranded in concentric layers.
- Core Wrapping: Plastic tape (s) with overlapping.
- Moisture Barrier: One laminated sheath made of aluminium tape (0.15mm thick) coated with PE-Copolymer on at least one side is applied with longitudinally overlap.
- Outer Sheath: LSZH sheath, coloured violet.

Optional

Type 1 Cables: For type 1 cables, additional foil (at least one polyester tape) and PVC sheath are applied over the LSZH sheath. (VDE Code: A-02Y(L)HY)

Armoured Cables: Corrugated steel tape armour is applied with an overlap over LSZH sheath. An outer LSZH sheath is applied over the armour. (VDE Code: A-02Y(L)H(SR)H)

Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	0.63	0.9
Maximum Conductor Resistance			
Average Value	Ω/km	57.5	28
Individual Value	Ω/km	59	29
Minimum Insulation Resistance @500 V DC	MΩ.km	1500	1500
Maximum Average Mutual Capacitance	nF/km	59	59
Maximum Average Capacitance Unbalance			
Between pairs in same quad	pF/460m	50	50



Between pairs (centre or in any layer)	pF/460m	30	30
Between any pairs and earth	pF/460m	200	200
Between phantom and pairs in same quad	pF/460m	300	300

↘ Mechanical and Thermal Properties

- Minimum Bending Radius: 7.5×OD (unarmoured); 10×OD (armoured)
- Temperature Range: -40°C to +70°C (during operation); -10°C to +50°C (during installation)

↘ Core Identification

Quad colours in centre and even layers

Position of Quad in Layer	Centre and Even Layers				Quad Whipping Colours
	A Wire	B Wire	C Wire	D Wire	
1 st Quad (Marker)	ORANGE	WHITE	BLUE	GREY	WHITE/ORANGE
Even Quads	RED	WHITE	VIOLET	YELLOW	WHITE
Odd Quads	BROWN	WHITE	GREEN	GREY	WHITE
Last Quad	ORANGE	WHITE	RED	GREEN	WHITE/ORANGE

Quad colours in odd layers

Position of Quad in Layer	Odd Layers				Quad Whipping Colours
	A Wire	B Wire	C Wire	D Wire	
1 st Quad (Marker)	ORANGE	BLACK	BLUE	GREY	WHITE/ORANGE
Even Quads	RED	BLACK	VIOLET	YELLOW	WHITE
Odd Quads	BROWN	BLACK	GREEN	GREY	WHITE
Last Quad	ORANGE	BLACK	RED	GREEN	WHITE/ORANGE

Make-up of cable

Number of Pairs	Number of Quads in centre and successive layers						
	Centre	1st Layer	2nd Layer	3th Layer	4th Layer	5th Layer	6th Layer
8	4	-	-	-	-	-	-
14	1	6	-	-	-	-	-
20	2	8	-	-	-	-	-
28	4	10	-	-	-	-	-
38	1	6	12	-	-	-	-
54	3	9	15	-	-	-	-
74	1	6	12	18	-	-	-
104	4	10	16	22	-	-	-
160	4	10	16	22	28	-	-
228	4	10	16	22	28	34	-
308	4	10	16	22	28	34	40

↘ Dimensions and Weight

G7622 A1 Type 2 Cables

Cable Code	No. of pairs	Minimum Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
0.63mm Conductor, 1.0mm Insulated Wire				
RS7622A1/T2-02Y(L)H-8P0.63	8	2.5	14.5	190
RS7622A1/T2-02Y(L)H-14P0.63	14	2.5	16.0	240
RS7622A1/T2-02Y(L)H-20P0.63	20	2.5	17.5	310
RS7622A1/T2-02Y(L)H-28P0.63	28	2.5	19.5	380
RS7622A1/T2-02Y(L)H-38P0.63	38	2.5	21.5	470
RS7622A1/T2-02Y(L)H-54P0.63	54	2.5	23.5	610
RS7622A1/T2-02Y(L)H-74P0.63	74	2.5	25.5	780
RS7622A1/T2-02Y(L)H-104P0.63	104	2.5	29.0	1020
RS7622A1/T2-02Y(L)H-160P0.63	160	2.5	34.0	1498
RS7622A1/T2-02Y(L)H-228P0.63	228	2.5	39.0	1993

Cable Code	No. of pairs	Minimum Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
RS7622A1/T2-02Y(L)H-308P0.63	308	2.5	43.5	2670
0.9mm Conductor, 1.5mm Insulated Wire				
RS7622A1/T2-02Y(L)H-8P0.9	8	2.5	17.5	280
RS7622A1/T2-02Y(L)H-14P0.9	14	2.5	20.0	380
RS7622A1/T2-02Y(L)H-20P0.9	20	2.5	22.5	500
RS7622A1/T2-02Y(L)H-28P0.9	28	2.5	24.5	630
RS7622A1/T2-02Y(L)H-38P0.9	38	2.5	25.5	790
RS7622A1/T2-02Y(L)H-54P0.9	54	2.5	29.0	1060
RS7622A1/T2-02Y(L)H-74P0.9	74	2.5	32.5	1370
RS7622A1/T2-02Y(L)H-108P0.9	108	2.5	37.5	1830

G7622 A1 Type 1 Cables

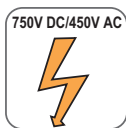
Cable Code	No. of pairs	Minimum Sheath Thickness mm		Nominal Overall Diameter mm	Nominal Weight kg/km
		Inner	Outer		
0.63mm Conductor, 1.0mm Insulated Wire					
RS7622A1/T1-02Y(L)HY-8P0.63	8	2.5	3.0	20.5	330
RS7622A1/T1-02Y(L)HY-14P0.63	14	2.5	3.0	22.0	390
RS7622A1/T1-02Y(L)HY-20P0.63	20	2.5	3.0	23.5	480
RS7622A1/T1-02Y(L)HY-28P0.63	28	2.5	3.0	25.5	560
RS7622A1/T1-02Y(L)HY-38P0.63	38	2.5	3.0	27.5	660
RS7622A1/T1-02Y(L)HY-54P0.63	54	2.5	3.0	29.5	830
RS7622A1/T1-02Y(L)HY-74P0.63	74	2.5	3.0	31.5	1010
RS7622A1/T1-02Y(L)HY-104P0.63	104	2.5	3.0	35.0	1290
0.9mm Conductor, 1.5mm Insulated Wire					
RS7622A1/T1-02Y(L)HY-8P0.9	8	2.5	3.0	23.5	440
RS7622A1/T1-02Y(L)HY-14P0.9	14	2.5	3.0	26.0	550
RS7622A1/T1-02Y(L)HY-20P0.9	20	2.5	3.0	28.5	700
RS7622A1/T1-02Y(L)HY-28P0.9	28	2.5	3.0	30.5	840
RS7622A1/T1-02Y(L)HY-38P0.9	38	2.5	3.0	31.5	1020
RS7622A1/T1-02Y(L)HY-54P0.9	54	2.5	3.0	35.0	1310
RS7622A1/T1-02Y(L)HY-74P0.9	74	2.5	3.0	38.5	1650
RS7622A1/T1-02Y(L)HY-104P0.9	104	2.5	3.0	43.5	2160

Armoured G7622 A1 Type 2 Cables

Cable Code	No. of pairs	Minimum Sheath Thickness mm		Nominal Overall Diameter mm	Nominal Weight kg/km
		Inner	Outer		
0.63mm Conductor, 1.0mm Insulated Wire					
RS7622A1/T2-02Y(L)H(SR)H-8P0.63	8	1.2	2.5	18.2	430
RS7622A1/T2-02Y(L)H(SR)H-14P0.63	14	1.2	2.5	19.0	500
RS7622A1/T2-02Y(L)H(SR)H-20P0.63	20	1.2	2.5	21.2	600
RS7622A1/T2-02Y(L)H(SR)H-28P0.63	28	1.2	2.5	22.6	690
RS7622A1/T2-02Y(L)H(SR)H-38P0.63	38	1.2	2.5	24.2	810
RS7622A1/T2-02Y(L)H(SR)H-54P0.63	54	1.2	2.5	26.7	980
RS7622A1/T2-02Y(L)H(SR)H-74P0.63	74	1.2	2.5	29.2	1190
RS7622A1/T2-02Y(L)H(SR)H-104P0.63	104	1.2	2.5	32.6	1480



Mineral Oil Resistant



750V DC/450V AC



Buried in Ground



Laid In Ducts

PVC Sheath



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

LSZH Sheath



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