

# AJ-2Y2YDB2Y S(H115)/S(H145)/S(H95)

# Applications

The cables are designed for transmission of service tensions up to 600 VDC / 420 V<sub>eff</sub> AC100Hz in railway signalling networks, and are suitable for installation in ducts or laying directly into the ground.



#### **№** Standards

- Dlk 1.013.107y
- Dlk 1.013.107y
- Dlk 1.013.108y (for 1.4/1.8mm conductor H95 type)
- Dlk 1.013.110y

#### Construction

• Conductors: Solid annealed copper, 0.9, 1.4 or 1.8 mm nominal diameter.

• Insulation: Solid polyethylene.

• Stranding: Single conductors are helically stranded in concentric layers. Cables from 14

conductors on have two extra conductors of 0.5mm with perforated insulation (surveillance conductors).

- Core Wrapping: Plastic tape(s) with overlapping.
- Inner Sheath: Low density polyethylene.
- Electrostatic Shield: One layer of helically applied copper wires (0.9, 1.2, 1.4 or 1.8mm).
- Electromagnetic Shield: Two helically applied steel tapes (0.5 or 0.8mm thick, depending on required reduction factor).
  - Outer Sheath: Low density polyethylene.

# Type Codes

AJoutdoor cable with protection against inductive influences

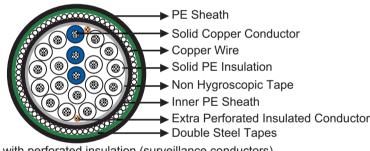
2Y solid PE conductor insulation

2Y inner PE sheath

D copper wire concentric screen

В steel tape armor 2Y outer PE sheath S signal cable LG layer stranding

H (n) operating capacity



#### ■ Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	0.9	1.4	1.8
Maximum Conductor Resistance	Ω/km	28.9	11.9	7.2
Minimum Insulation Resistance @500 V DC (1min)	MΩ.km	10000	10000	10000
Maximum Mutual Capacitance @800Hz (AC)	nF/km	115	145/95*	145/95*
Dielectric Strength, conductor to conductor (DC voltage 1min)	V	3535	3535	3535
Surveillance Conductors				
Loop resistance, maximum	Ω/km	190	190	190
Insulation resistance				
- dry cable core, minimum	MΩ.km	1000	1000	1000
- wet cable core, maximum	KΩ.km	30	30	30
Nominal Reduction Factor @ 100 V/km, 16 2/3 Hz				
rk 401 series		0.15	0.15	0.15
rk 501 series		0.35	0.35	0.35
rk 601 series		0.55	0.55	0.55
Operating Voltage AC/DC	V	420/600	420/600	420/600
Test Voltage@50 Hz 1 min				
Core to Core	$V_{\rm eff}$	2500	2500	2500
Core to Screen	$V_{\rm eff}$	2500	2500	2500

<sup>\*</sup>The value "95" is only for cables with 1.4/1.8mm conductors according to Dlk 1.013.108y.

## ■ Mechanical and Thermal Properties

• Minimum Bending Radius: 10×OD

• Temperature Range: -40°C to +60°C (during operation); -10°C +60°C (during installation)

# Dimensions and Weight

AJ-2Y2YDB2Y  $n \times 1 \times 0.9$  S(H115)

Cable Code	Number of conductors	Nominal Sh	neath Thickness mm	Nominal Overall Diameter	Nominal Weight			
	(n)	Inner	Outer	mm	kg/km			
0.9mm Conductor, 1.55mm Insulated Wire rk 601 Series								
RS107y-2Y2YDB2Y-10C0.9-S(H115)-R6	10	1.3	1.2	19.0	520			
RS107y-2Y2YDB2Y-20C0.9-S(H115)-R6	20	1.3	1.2	20.0	650			
RS107y-2Y2YDB2Y-30C0.9-S(H115)-R6	30	1.3	1.2	22.0	780			
RS107y-2Y2YDB2Y-50C0.9-S(H115)-R6	50	1.3	1.2	25.0	1010			
RS107y-2Y2YDB2Y-80C0.9-S(H115)-R6	80	1.3	1.2	29.0	1330			
RS107y-2Y2YDB2Y-120C0.9-S(H115)-R6	120	1.3	1.3	32.0	1740			
RS107y-2Y2YDB2Y-160C0.9-S(H115)-R6	160	1.3	1.3	35.0	2310			
RS107y-2Y2YDB2Y-200C0.9-S(H115)-R6	200	1.3	1.3	38.0	2520			
0.9mm Cond	uctor, 1.55mm I	nsulated Wire	rk 501 Series					
RS107y-2Y2YDB2Y-10C0.9-S(H115)-R5	10	1.3	1.2	19.0	600			
RS107y-2Y2YDB2Y-20C0.9-S(H115)-R5	20	1.3	1.2	20.0	740			
RS107y-2Y2YDB2Y-30C0.9-S(H115)-R5	30	1.3	1.2	22.0	890			
RS107y-2Y2YDB2Y-50C0.9-S(H115)-R5	50	1.3	1.3	25.0	1150			
RS107y-2Y2YDB2Y-80C0.9-S(H115)-R5	80	1.3	1.3	29.0	1480			
RS107y-2Y2YDB2Y-120C0.9-S(H115)-R5	120	1.5	1.3	32.0	1910			
RS107y-2Y2YDB2Y-160C0.9-S(H115)-R5	160	1.5	1.3	35.0	2530			
RS107y-2Y2YDB2Y-200C0.9-S(H115)-R5	200	1.5	1.5	38.0	2730			



#### AJ-2Y2YDB2Y $n \times 1 \times 1.4/1.8 \text{ S}(H145)$

Cable Code	Number of conductors		ath Thickness nm	Nominal Overall Diameter	Nomina Weight	
	(n)	Inner	Outer	mm	kg/km	
	conductor, 2.2mm					
RS107y-2Y2YDB2Y-10C1.4-S(H145)-R6	10	1.3	1.2	21	670	
RS107y-2Y2YDB2Y-20C1.4-S(H145)-R6	20	1.3	1.2	23.5	940	
RS107y-2Y2YDB2Y-30C1.4-S(H145)-R6	30	1.3	1.2	27	1180	
RS107y-2Y2YDB2Y-50C1.4-S(H145)-R6	50	1.3	1.2	31	1650	
RS107y-2Y2YDB2Y-80C1.4-S(H145)-R6	80	1.3	1.2	35	2270	
RS107y-2Y2YDB2Y-120C1.4-S(H145)-R6	120	1.3	1.3	41	3110	
RS107y-2Y2YDB2Y-160C1.4-S(H145)-R6	160	1.3	1.3	46	3900	
RS107y-2Y2YDB2Y-200C1.4-S(H145)-R6	200	1.3	1.3	49	4670	
	conductor, 2.2mm		501 Series			
RS107y-2Y2YDB2Y-10C1.4-S(H145)-R5	10	1.3	1.2	21	780	
RS107y-2Y2YDB2Y-20C1.4-S(H145)-R5	20	1.3	1.2	23.5	1070	
RS107y-2Y2YDB2Y-30C1.4-S(H145)-R5	30	1.3	1.2	26	1320	
RS107y-2Y2YDB2Y-50C1.4-S(H145)-R5	50	1.3	1.3	31	1810	
RS107y-2Y2YDB2Y-80C1.4-S(H145)-R5	80	1.3	1.3	35	2460	
RS107y-2Y2YDB2Y-120C1.4-S(H145)-R5	120	1.5	1.3	42	3380	
RS107y-2Y2YDB2Y-160C1.4-S(H145)-R5	160	1.5	1.3	46	4190	
RS107y-2Y2YDB2Y-200C1.4-S(H145)-R5	200	1.5	1.5	49	5000	
1.4mm C	onductor, 2.2mm	Insulated Wire rk 4	101 Series			
RS107y-2Y2YDB2Y-10C1.4-S(H145)-R4	10	1.3	1.2	23	960	
RS107y-2Y2YDB2Y-20C1.4-S(H145)-R4	20	1.3	1.2	25.6	1260	
RS107y-2Y2YDB2Y-30C1.4-S(H145)-R4	30	1.3	1.3	28	1940	
RS107y-2Y2YDB2Y-50C1.4-S(H145)-R4	50	1.3	1.3	33	2450	
RS107y-2Y2YDB2Y-80C1.4-S(H145)-R4	80	1.5	1.3	38	3280	
RS107y-2Y2YDB2Y-120C1.4-S(H145)-R4	120	1.5	1.5	44	4290	
RS107y-2Y2YDB2Y-160C1.4-S(H145)-R4	160	1.5	1.5	48	5200	
RS107y-2Y2YDB2Y-200C1.4-S(H145)-R4	200	1.5	1.5	52	6060	
, ,	onductor, 2.7mm	Insulated Wire rk 6	301 Series			
RS107y-2Y2YDB2Y-10C1.8-S(H145)-R6	10	1.3	1.2	23	850	
RS107y-2Y2YDB2Y-20C1.8-S(H145)-R6	20	1.3	1.2	27	1260	
RS107y-2Y2YDB2Y-30C1.8-S(H145)-R6	30	1.3	1.3	30	1620	
RS107y-2Y2YDB2Y-50C1.8-S(H145)-R6	50	1.3	1.3	36	2080	
RS107y-2Y2YDB2Y-80C1.8-S(H145)-R6	80	1.5	1.3	41	3310	
RS107y-2Y2YDB2Y-120C1.8-S(H145)-R6	120	1.5	1.5	48	4570	
RS107y-2Y2YDB2Y-160C1.8-S(H145)-R6	160	1.5	1.5	54	5950	
RS107y-2Y2YDB2Y-200C1.8-S(H145)-R6	200	1.5	1.5	58	6970	
	onductor, 2.7mm			00	00.0	
RS107y-2Y2YDB2Y-10C1.8-S(H145)-R5	10	1.3	1.2	23	970	
RS107y-2Y2YDB2Y-20C1.8-S(H145)-R5	20	1.3	1.2	27	1410	
RS107y-2Y2YDB2Y-30C1.8-S(H145)-R5	30	1.3	1.3	30	1780	
RS107y-2Y2YDB2Y-50C1.8-S(H145)-R5	50	1.3	1.3	36	2520	
RS107y-2Y2YDB2Y-80C1.8-S(H145)-R5	80	1.5	1.3	42	3570	
RS107y-2Y2YDB2Y-120C1.8-S(H145)-R5	120	1.5	1.5	49	5950	
	160	1.5	1.5	55	6170	
RS107y-2Y2YDB2Y-160C1.8-S(H145)-R5						
RS107y-2Y2YDB2Y-200C1.8-S(H145)-R5	200 conductor, 2.7mm	1.5	1.5	59	7380	
	· · · · · · · · · · · · · · · · · · ·			25	1160	
RS107y-2Y2YDB2Y-10C1.8-S(H145)-R4	10	1.3	1.2	25	1160	
RS107y-2Y2YDB2Y-20C1.8-S(H145)-R4	20	1.3	1.2	29	1700	
RS107y-2Y2YDB2Y-30C1.8-S(H145)-R4	30	1.3	1.3	32	2400	
RS107y-2Y2YDB2Y-50C1.8-S(H145)-R4	50	1.3	1.3	38	3350	
RS107y-2Y2YDB2Y-80C1.8-S(H145)-R4	80	1.5	1.3	44	3310	
RS107y-2Y2YDB2Y-120C1.8-S(H145)-R4	120	1.5	1.5	51	4900	
RS107y-2Y2YDB2Y-160C1.8-S(H145)-R4	160	1.5	1.5	57	7340	
RS107y-2Y2YDB2Y-200C1.8-S(H145)-R4	200	1.5	1.5	61	8650	

# **RAILSIG RAILWAY SIGNALLING** & CONTROL CABLES

#### AJ-2Y2YDB2Y $n \times 1 \times 1.4/1.8 \text{ S}(H95)$

Cable Code	Number of conductors (n)	ctors mm		Nominal Overall Diameter mm	Nominal Weight kg/km				
	(11)	Inner	Outer						
1.4mm Conductor, 2.7mm Insulated Wire rk 501 Series									
RS108y-2Y2YDB2Y-10C1.4-S(H95)-R5	10	1.3	1.2	22.0	900				
RS108y-2Y2YDB2Y-14C1.4-S(H95)-R5	14	1.3	1.2	24.0	1010				
RS108y-2Y2YDB2Y-20C1.4-S(H95)-R5	20	1.3	1.2	27.0	1220				
RS108y-2Y2YDB2Y-30C1.4-S(H95)-R5	30	1.3	1.2	30.0	1520				
RS108y-2Y2YDB2Y-50C1.4-S(H95)-R5	50	1.3	1.3	35.0	2090				
1.4mm (	Conductor, 2.7m	m Insulated W	ire rk 401 Ser	ies					
RS108y-2Y2YDB2Y-30C1.4-S(H95)-R4	30	1.3	1.2	32.0	2150				
RS108y-2Y2YDB2Y-50C1.4-S(H95)-R4	50	1.3	1.3	38.0	2900				
1.8mm (	Conductor, 3.4m	m Insulated W	ire rk 501 Ser	ies					
RS108y-2Y2YDB2Y-10C1.8-S(H95)-R5	10	1.3	1.2	25.0	1130				
RS108y-2Y2YDB2Y-14C1.8-S(H95)-R5	14	1.3	1.2	27.0	1330				
RS108y-2Y2YDB2Y-20C1.8-S(H95)-R5	20	1.3	1.2	30.0	1620				
RS108y-2Y2YDB2Y-30C1.8-S(H95)-R5	30	1.3	1.3	34.0	2340				
RS108y-2Y2YDB2Y-50C1.8-S(H95)-R5	50	1.3	1.3	42.0	3020				
1.8mm (	Conductor, 3.4m	m Insulated W	ire rk 401 Ser	ies					
RS108y-2Y2YDB2Y-30C1.8-S(H95)-R4	30	1.3	1.3	37.0	2880				
RS108y-2Y2YDB2Y-50C1.8-S(H95)-R4	50	1.3	1.3	44.0	3950				















UV Resistant Water Resistant Rated Voltage

Laid In Ducts Buried in Ciround

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





# A-2Y2YB2Y S(H115)/S(H145)/S(H95)

# Applications

The cables are designed in railways signalling networks, and are suitable for installation in ducts or laying directly into the ground.

#### Standards

- Dlk 1.013.107y
- Dlk 1.013.108y (for 1.4/1.8mm conductor H95 type)
- Dlk 1.013.110y

#### **№** Construction

- Conductors: Solid annealed copper, 0.9, 1.4 or 1.8 mm nominal diameter.
  - Insulation: Solid polyethylene.
  - Stranding: Single conductors are helically

stranded in concentric layers. Cables from 14 conductors on have two extra conductors of 0.5mm with perforated insulation (surveillance conductors).

- Core Wrapping: Plastic tape(s) with overlapping.
- Inner Sheath: Low density polyethylene.
- Armouring: One layer of galvanized steel tape (0.2-0.3mm) or two layers of galvanized steel tapes (0.1mm).
- Outer Sheath: Low density polyethylene.

# ■ Type Codes

S

A-	outdoor cable	

2Y solid PE conductor insulation

2Y inner PE sheathB steel tape armor2Y PE outer sheath

LG layer stranding

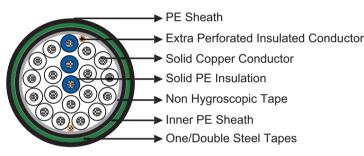
H(n) operating capacity

signal cable

## ■ Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	0.9	1.4	1.8
Maximum Conductor Resistance	Ω/km	28.9	11.9	7.2





Minimum Insulation Resistance @500 V DC (1min)	MΩ.km	10000	10000	10000
Maximum Conductor Capacitance @800Hz (AC)	nF/km	115	145/95*	145/95*
Dielectric Strength, conductor to conductor (DC voltage 1min)	V	3535	3535	3535
Surveillance Conductors				
Loop resistance, maximum	Ω/km	190	190	190
Insulation resistance				
- dry cable core, minimum	MΩ.km	1000	1000	1000
- wet cable core, maximum	KΩ.km	30	30	30
Operating Voltage AC/DC	V	420/600	420/600	420/600
Test Voltage@50 Hz 1 min				
Core to Core	$V_{\rm eff}$	2500	2500	2500
Core to Screen	$V_{\rm eff}$	2500	2500	2500

<sup>\*</sup>The value "95" is only for cables with 1.4/1.8mm conductors according to Dlk 1.013.108y.

# ■ Mechanical and Thermal Properties

• Minimum Bending Radius: 10×OD

• Temperature Range: -40°C to +60°C (during operation); -10°C +60°C (during installation)

# Dimensions and Weight

A-2Y2YB2Y  $n \times 1 \times 0.9$  S(H115)

Cable Code	Number of conductors			Nominal Overall Diameter	Nominal Weight
	(n)	Inner	Outer	mm	kg/km
0.	9mm Conductor, 1	1.55mm Insulated	d Wire		
RS107y-2Y2YB2Y-2C0.9-S(H115)	2	1.3	1.2	12.0	120
RS107y-2Y2YB2Y-4C0.9-S(H115)	4	1.3	1.2	13.0	140
RS107y-2Y2YB2Y-7C0.9-S(H115)	7	1.3	1.2	14.0	170
RS107y-2Y2YB2Y-10C0.9-S(H115)	10	1.3	1.2	15.5	220
RS107y-2Y2YB2Y-14C0.9-S(H115)	14	1.3	1.2	16.0	260
RS107y-2Y2YB2Y-20C0.9-S(H115)	20	1.3	1.2	17.0	320
RS107y-2Y2YB2Y-24C0.9-S(H115)	24	1.3	1.2	19.0	370
RS107y-2Y2YB2Y-30C0.9-S(H115)	30	1.3	1.2	19.0	410
RS107y-2Y2YB2Y-40C0.9-S(H115)	40	1.3	1.2	20.0	500
RS107y-2Y2YB2Y-50C0.9-S(H115)	50	1.3	1.2	22.0	590
RS107y-2Y2YB2Y-60C0.9-S(H115)	60	1.3	1.2	23.0	680
RS107y-2Y2YB2Y-80C0.9-S(H115)	80	1.3	1.2	25.0	840
RS107y-2Y2YB2Y-100C0.9-S(H115)	100	1.3	1.3	28.0	1020
RS107y-2Y2YB2Y-120C0.9-S(H115)	120	1.3	1.3	29.0	1180
RS107y-2Y2YB2Y-140C0.9-S(H115)	140	1.3	1.3	31.0	1360

#### A-2Y2YB2Y $n \times 1 \times 1.4/1.8$ S(H145)

Cable Code	Number of conductors	Nominal Sheath Thickness mm		Nominal Overall Diameter	Nominal Weight
	(n)	Inner	Outer	mm	kg/km
	1.4mm Conducto	or, 2.2mm Insula	ted Wire		
RS107y-2Y2YB2Y-4C1.4-S(H145)	4	1.3	1.2	14.0	190
RS107y-2Y2YB2Y-7C1.4-S(H145)	7	1.3	1.2	15.5	260
RS107y-2Y2YB2Y-10C1.4-S(H145)	10	1.3	1.2	18.0	340
RS107y-2Y2YB2Y-14C1.4-S(H145)	14	1.3	1.2	19.0	420
RS107y-2Y2YB2Y-20C1.4-S(H145)	20	1.3	1.2	21.0	550
RS107y-2Y2YB2Y-24C1.4-S(H145)	24	1.3	1.2	22.0	630

Cable Code	Number of conductors			Nominal Overall Diameter	Nominal Weight
	(n)	Inner	Outer	mm	kg/km
RS107y-2Y2YB2Y-30C1.4-S(H145)	30	1.3	1.2	23.0	750
RS107y-2Y2YB2Y-40C1.4-S(H145)	40	1.3	1.2	25.0	940
RS107y-2Y2YB2Y-50C1.4-S(H145)	50	1.3	1.3	28.0	1140
RS107y-2Y2YB2Y-60C1.4-S(H145)	60	1.3	1.3	30.0	1320
	1.8mm Conducto	or, 2.7mm Insula	ted Wire		
RS107y-2Y2YB2Y-4C1.8-S(H145)	4	1.3	1.2	15.5	250
RS107y-2Y2YB2Y-7C1.8-S(H145)	7	1.3	1.2	17.0	350
RS107y-2Y2YB2Y-10C1.8-S(H145)	10	1.3	1.2	20.0	470
RS107y-2Y2YB2Y-14C1.8-S(H145)	14	1.3	1.2	21.0	600
RS107y-2Y2YB2Y-20C1.8-S(H145)	20	1.3	1.2	24.0	800
RS107y-2Y2YB2Y-24C1.8-S(H145)	24	1.3	1.2	26.0	910
RS107y-2Y2YB2Y-30C1.8-S(H145)	30	1.3	1.2	27.0	1100
RS107y-2Y2YB2Y-40C1.8-S(H145)	40	1.3	1.2	30.0	1400

#### $A-2Y2YB2Y n \times 1 \times 1.4 S(H95)$

Cable Code	Number of conductors	Nominal Sheath Thickness mm		Nominal Overall Diameter	Nominal Weight kg/km
	(n)	Inner	Outer	mm	kg/kiii
	1.4mm Conduc	ctor, 2.7mm Insu	lated Wire		
RS108y-2Y2YB2Y-10C1.4-S(H95)	10	1.3	1.2	18.0	390
RS108y-2Y2YB2Y-14C1.4-S(H95)	14	1.3	1.2	20.0	480
RS108y-2Y2YB2Y-20C1.4-S(H95)	20	1.3	1.2	22.0	610
	1.8mm Conduc	ctor, 3.4mm Insu	lated Wire		
RS108y-2Y2YB2Y-10C1.8-S(H95)	10	1.3	1.2	21.0	550
RS108y-2Y2YB2Y-14C1.8-S(H95)	14	1.3	1.2	23.0	700













Rated Voltage

Buried in Ciround

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



# A-2Y2Yv S(H115)/S(H145)/S(H95)

# **№** Applications

The cables are designed for general uses in protective devises in railways signalling networks, and are suitable for installation in ducts.

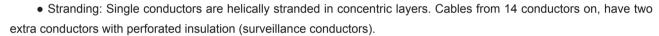
#### Standards

- Dlk 1.013.107y
- Dlk 1.013.108y (for 1.4/1.8mm conductor H95 type)
- Dlk 1.013.110y



Conductors: Solid annealed copper, 0.9, 1.4 or
 1.8 mm nominal diameter.





- Core Wrapping: Plastic tape(s) with overlapping.
- Outer Sheath: Low density polyethylene.

# Type Codes

A- outdoor cable

2Y solid PE conductor insulation

2Yv PE sheath with increased wall thickness

S signal cable

LG layer stranding

H(n) operating capacity

## ■ Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	0.9	1.4	1.8
Maximum Conductor Resistance	Ω/km	28.9	11.9	7.2
Minimum Insulation Resistance @500 V DC (1min)	MΩ.km	10000	10000	10000
Maximum Conductor Capacitance @800Hz (AC)	nF/km	115	145/95*	145/95*
Dielectric Strength, conductor to conductor (DC voltage 1min)	V	3535	3535	3535
Surveillance Conductors				
Loop resistance, maximum	Ω/km	190	190	190
Insulation resistance				
- dry cable core, minimum	MΩ.km	1000	1000	1000







- wet cable core, maximum	KΩ.km	30	30	30
Operating Voltage AC/DC	V	420/600	420/600	420/600
Test Voltage@50 Hz 1 min				
Core to Core	$V_{\rm eff}$	2500	2500	2500
Core to Screen	$V_{\rm eff}$	2500	2500	2500

<sup>\*</sup>The value "95" is only for cables with 1.4/1.8mm conductors according to Dlk 1.013.108y.

# Mechanical and Thermal Properties

- Minimum Bending Radius: 7.5×OD
- Temperature Range: -40°C to +60°C (during operation); -10°C to +60°C (during installation)

# Dimensions and Weight

 $A-2Y2Yv n \times 1 \times 0.9 S(H115)$ 

Cable Code	Number of conductors (n)	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
	0.9mm Conducto	r, 1.55mm Insulated Wire		
RS107y-2Y2Yv-2C0.9-S(H115)	2	2.0	9.0	60
RS107y-2Y2Yv-4C0.9-S(H115)	4	2.0	9.0	75
RS107y-2Y2Yv-7C0.9-S(H115)	7	2.0	11.0	100
RS107y-2Y2Yv-10C0.9-S(H115)	10	2.0	12.0	130
RS107y-2Y2Yv-14C0.9-S(H115)	14	2.0	13.0	170
RS107y-2Y2Yv-20C0.9-S(H115)	20	2.0	14.0	220
RS107y-2Y2Yv-24C0.9-S(H115)	24	2.0	15.0	260
RS107y-2Y2Yv-30C0.9-S(H115)	30	2.2	16.0	310
RS107y-2Y2Yv-40C0.9-S(H115)	40	2.2	17.0	380
RS107y-2Y2Yv-50C0.9-S(H115)	50	2.2	19.0	460
RS107y-2Y2Yv-60C0.9-S(H115)	60	2.2	20.0	540
RS107y-2Y2Yv-80C0.9-S(H115)	80	2.2	22.0	690
RS107y-2Y2Yv-100C0.9-S(H115)	100	2.2	25.0	850
RS107y-2Y2Yv-120C0.9-S(H115)	120	2.2	26.0	990
RS107y-2Y2Yv-140C0.9-S(H115)	140	2.2	28.0	1150
RS107y-2Y2Yv-160C0.9-S(H115)	160	2.2	29.0	1260
RS107y-2Y2Yv-180C0.9-S(H115)	180	2.2	32.0	1460
RS107y-2Y2Yv-200C0.9-S(H115)	200	2.2	32.0	1600

#### $A-2Y2Yv n \times 1 \times 1.4/1.8 S(H145)$

Cable Code	Number of conductors (n)	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
	1.4mm Conducto	or, 2.2mm Insulated Wire		
RS107y-2Y2Yv-4C1.4-S(H145)	4	2.0	11.0	120
RS107y-2Y2Yv-7C1.4-S(H145)	7	2.0	12.0	180
RS107y-2Y2Yv-10C1.4-S(H145)	10	2.0	15.0	240
RS107y-2Y2Yv-14C1.4-S(H145)	14	2.2	16.0	320
RS107y-2Y2Yv-20C1.4-S(H145)	20	2.2	17.0	430
RS107y-2Y2Yv-24C1.4-S(H145)	24	2.2	19.0	500
RS107y-2Y2Yv-30C1.4-S(H145)	30	2.2	20.0	600
RS107y-2Y2Yv-40C1.4-S(H145)	40	2.2	22.0	770
RS107y-2Y2Yv-50C1.4-S(H145)	50	2.2	24.0	950
RS107y-2Y2Yv-60C1.4-S(H145)	60	2.2	26.0	1120
RS107y-2Y2Yv-80C1.4-S(H145)	80	2.2	29.0	1450
RS107y-2Y2Yv-100C1.4-S(H145)	100	2.2	33.0	1810

# RAILSIG RAILWAY SIGNALLING & CONTROL CABLES

Cable Code	Number of conductors (n)	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
RS107y-2Y2Yv-120C1.4-S(H145)	120	2.2	35.0	2140
RS107y-2Y2Yv-140C1.4-S(H145)	140	2.2	37.0	2470
RS107y-2Y2Yv-160C1.4-S(H145)	160	2.2	39.0	2800
RS107y-2Y2Yv-180C1.4-S(H145)	180	2.2	42.0	3140
RS107y-2Y2Yv-200C1.4-S(H145)	200	2.2	43.0	3460
	1.8mm Conducto	r, 2.7mm Insulated Wire		
RS107y-2Y2Yv-4C1.8-S(H145)	4	2.0	12.0	170
RS107y-2Y2Yv-7C1.8-S(H145)	7	2.0	14.0	260
RS107y-2Y2Yv-10C1.8-S(H145)	10	2.0	17.0	355
RS107y-2Y2Yv-14C1.8-S(H145)	14	2.2	18.0	475
RS107y-2Y2Yv-20C1.8-S(H145)	20	2.2	21.0	655
RS107y-2Y2Yv-24C1.8-S(H145)	24	2.2	22.0	760
RS107y-2Y2Yv-30C1.8-S(H145)	30	2.2	24.0	930
RS107y-2Y2Yv-40C1.8-S(H145)	40	2.2	27.0	1210
RS107y-2Y2Yv-50C1.8-S(H145)	50	2.2	29.0	1480
RS107y-2Y2Yv-60C1.8-S(H145)	60	2.2	31.0	1760
RS107y-2Y2Yv-80C1.8-S(H145)	80	2.2	35.0	2310
RS107y-2Y2Yv-100C1.8-S(H145)	100	2.2	40.0	2860
RS107y-2Y2Yv-120C1.8-S(H145)	120	2.2	42.0	3390
RS107y-2Y2Yv-140C1.8-S(H145)	140	2.2	46.0	3930
RS107y-2Y2Yv-160C1.8-S(H145)	160	2.2	49.0	4500
RS107y-2Y2Yv-180C1.8-S(H145)	180	2.2	52.0	5100
RS107y-2Y2Yv-200C1.8-S(H145)	200	2.2	53.0	5600

#### $A-2Y2Yv n \times 1 \times 1.4/1.8 S(H95)$

Cable Code	Number of conductors (n)	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
	1.4mm Condu	ctor, 2.7mm Insulated W	ire	
RS108y-2Y2Yv-10C1.4-S(H95)	10	2.0	16.0	270
RS108y-2Y2Yv-14C1.4-S(H95)	14	2.0	18.0	350
RS108y-2Y2Yv-20C1.4-S(H95)	20	2.0	20.0	470
RS108y-2Y2Yv-30C1.4-S(H95)	30	2.2	24.0	670
RS108y-2Y2Yv-50C1.4-S(H95)	50	2.2	29.0	1050
	1.8mm Condu	ctor, 3.4mm Insulated W	ire	
RS108y-2Y2Yv-10C1.8-S(H95)	10	2.0	19.0	400
RS108y-2Y2Yv-14C1.8-S(H95)	14	2.2	21.0	540
RS108y-2Y2Yv-20C1.8-S(H95)	20	2.2	24.0	730
RS108y-2Y2Yv-30C1.8-S(H95)	30	2.2	28.0	1050
RS108y-2Y2Yv-50C1.8-S(H95)	50	2.2	36.0	1700





# TYPE A1, A2 & A3 Railway Signalling Cable

## Applications

The cables are designed for railway signalling systems. The cables are suitable for use in d.c. circuits where the nominal voltage to earth does not exceed 1100 volts and are suitable for installation in ducts.

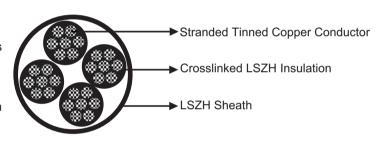


#### **№** Standards

• NR/PS/SIG/00005(formerly RT/E/PS/00005)

#### **№** Construction

- Conductors: Tinned stranded copper, class 2 according to IEC 60228 & BS 6360.
  - Insulation: LSZH crosslinked.
- $\bullet$  Core Wrapping: Plastic tape(s) with overlapping.
  - Sheath: LSZH (for types A2 & A3 only).



#### ➡ Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm²	0.75	1.15	
Maximum Conductor DC Resistance	Ω/km	24.8	17.3	
Voltage Rating	KV	0.65/1.1		
Nominal Insulation Thickness	mm	0.85	0.85	

# Mechanical and Thermal Properties

- Minimum Bending Radius: 6×OD (static); 15×OD (dynamic)
- Temperature Range: -25°C to +85°C (during operation); -10°C to +85°C (during installation)

# Dimensions and Weight

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km
	Ту	pe A1(without sheath)			
RS/A1-H-1G0.75(BL)	1x0.75(blue)	7/0.37	-	2.7/3.2	16
RS/A1-H-1G0.75(BR)	1x0.75(brown)	7/0.37	-	2.7/3.2	16
RS/A1-H-1G0.75(RD)	1x0.75(red)	7/0.37	-	2.7/3.2	16
RS/A1-H-1G0.75(OR)	1x0.75(orange)	7/0.37	-	2.7/3.2	16

# RAILSIG RAILWAY SIGNALLING & CONTROL CABLES

	No of consequences				
	No. of cores& Nominal Conductor Cross	No. & Nominal	Nominal Sheath	Overall Diameter	Nominal
Cable Code	Sectional Area	Diameter of Strands	Thickness	Min/Max	Weight
	No.×mm²	No/mm	mm	mm	kg/km
RS/A1-H-1G0.75(GR)	1x0.75(green)	7/0.37	-	2.7/3.2	16
RS/A1-H-1G0.75(VI)	1x0.75(violet)	7/0.37	-	2.7/3.2	16
RS/A1-H-1G0.75	1x0.75(black)	7/0.37	-	2.7/3.2	16
RS/A1-H-1G1.15	1x1.15(black)	16/0.30	-	2.9/3.6	21
		Type A2(with sheath)			
RS/A2-3GH-1G0.75	1x0.75	7/0.37	0.7	4.0/5.0	30
RS/A2-3GH-1G1.15	1x1.15	16/0.30	0.7	4.3/5.3	35
		Type A3(with sheath)			
RS/A3-3GH-2G0.75	2x0.75	7/0.37	0.9	6.7/8.8	67
RS/A3-3GH-4G0.75	4x0.75	7/0.37	1.0	8.0/10.4	108
RS/A3-3GH-6G0.75	6x0.75	7/0.37	1.1	9.7/12.5	160
RS/A3-3GH-10G0.75	10x0.75	7/0.37	1.2	12.6/16.1	259
RS/A3-3GH-14G0.75	14x0.75	7/0.37	1.3	13.8/17.7	495
RS/A3-3GH-36G0.75	36x0.75	7/0.37	1.6	21.6/26.9	752
RS/A3-3GH-48G0.75	48x0.75	7/0.37	1.6	24.3/30.7	963



Impact Resistant



Highly Flexible



Oil Resistant



Weather Resistant



Rated Voltage



Laid In Ducts



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/EN50266



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



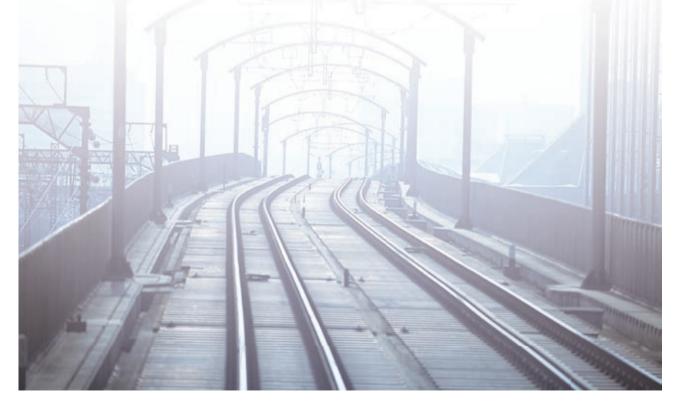
Low Smoke Emission IEC 61034/NFC20-902 EN 50268/NF C32-073



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



Low Toxicity



# **TYPE B1 & B2 Railway Signalling Cable**

## Applications

The cables are designed for railway signalling systems. The cables are suitable for use in d.c. circuits where the nominal voltage to earth does not exceed 1100 volts and installation in ducts.

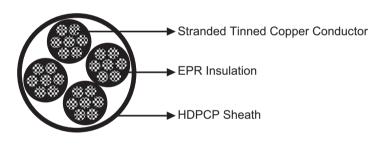


#### **■** Standards

• NR/PS/SIG/00005(formerly RT/E/PS/00005)

#### **№** Construction

- Conductors: Tinned stranded copper, class 2 according to IEC 60228 & BS 6360.
  - Insulation: EPR Type GP4 to BS 7655.
- Core Wrapping: Plastic tape(s) with overlapping.
- Sheath: HDPCP Type RS2 to BS 7655.



## ■ Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm²	0.75	1.5	2.5	10.0	16.0	35.0	70.0	95.0
Maximum DC Conductor Resistance	Ω/km	24.8	12.2	7.56	1.84	1.16	0.529	0.27	0.195
Voltage Rating	KV	0.65/1.1							
Nominal Insulation Thickness	mm	0.85	0.8	0.8	1.0	1.0	1.2	1.4	1.6

# Mechanical and Thermal Properties

- Minimum Bending Radius: 6×OD (static); 15×OD (dynamic)
- Temperature Range: -25°C to +85°C (during operation); -10°C to +85°C (during installation)

# ■ Dimensions and Weight

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No. ×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km
		Type B1			
RS/B1-3G5G-1G0.75	1×0.75	7/0.37	2.0	6.5/8.1	28
RS/B1-3G5G-1G1.5	1×1.5	7/0.53	2.0	6.8/8.5	31
RS/B1-3G5G-1G2.5	1×2.5	7/0.67	2.0	7.2/8.9	34

# RAILSIG RAILWAY SIGNALLING & CONTROL CABLES

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No. ×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km
RS/B1-3G5G-1G10	1×10.0	7/1.35	2.0	9.4/11.8	205
RS/B1-3G5G-1G35	1×35.0	19/1.53	2.0	12.9/16.1	495
		Type B2			
RS/B2-3G5G-2G1.5	2×1.5	7/0.53	2.0	9.4/12.1	135
RS/B2-3G5G-2G2.5	2×2.5	7/0.67	2.0	10.5/13.1	170
RS/B2-3G5G-2G10	2×10.0	7/1.35	2.0	15.0/18.7	443
RS/B2-3G5G-2G16	2×16.0	7/1.70	2.0	16.7/20.9	625
RS/B2-3G5G-2G35	2×35.0	19/1.53	2.2	22.3/27.8	1232
RS/B2-3G5G-2G70	2×70.0	19/2.14	2.4	28.8/36.0	2053
RS/B2-3G5G-2G95	2×95.0	19/2.52	2.6	33.2/41.5	2968
RS/B2-3G5G-4G0.75	4×0.75	7/0.37	2.0	10.2/12.8	140
RS/B2-3G5G-7G0.75	7×0.75	7/0.37	2.0	11.8/14.7	214
RS/B2-3G5G-10G0.75	10×0.75	7/0.37	2.0	14.4/18.0	280
RS/B2-3G5G-12G0.75	12×0.75	7/0.37	2.0	14.8/18.5	321
RS/B2-3G5G-19G0.75	19×0.75	7/0.37	2.0	17.0/21.3	451
RS/B2-3G5G-27G0.75	27×0.75	7/0.37	2.0	20.1/25.1	602
RS/B2-3G5G-37G0.75	37×0.75	7/0.37	2.2	22.7/28.4	799
RS/B2-3G5G-48G0.75	48×0.75	7/0.37	2.2	25.7/32.2	973
RS/B2-3G5G-4G1.5	4×1.5	7/0.53	2.0	10.9/13.7	217
RS/B2-3G5G-7G1.5	7×1.5	7/0.53	2.0	12.6/15.8	296
RS/B2-3G5G-10G1.5	10×1.5	7/0.53	2.0	15.6/19.4	401
RS/B2-3G5G-12G1.5	12×1.5	7/0.53	2.0	16.0/20.0	437
RS/B2-3G5G-19G1.5	19×1.5	7/0.53	2.0	18.5/23.1	615
RS/B2-3G5G-27G1.5	27×1.5	7/0.53	2.2	22.2/27.8	856
RS/B2-3G5G-37G1.5	37×1.5	7/0.53	2.2	25.1/31.4	1126
RS/B2-3G5G-48G1.5	48×1.5	7/0.53	2.4	28.1/35.1	1494
RS/B2-3G5G-4G2.5	4×2.5	7/0.67	2.0	11.9/14.8	260
RS/B2-3G5G-7G2.5	7×2.5	7/0.67	2.0	13.8/17.2	370
RS/B2-3G5G-10G2.5	10×2.5	7/0.67	2.0	17.1/21.3	520
RS/B2-3G5G-12G2.5	12×2.5	7/0.67	2.0	17.6/22.0	599
RS/B2-3G5G-19G2.5	19×2.5	7/0.67	2.0	20.4/25.5	835
RS/B2-3G5G-27G2.5	27×2.5	7/0.67	2.2	24.6/30.7	1232
RS/B2-3G5G-37G2.5	37×2.5	7/0.67	2.4	27.8/34.7	1623
RS/B2-3G5G-48G2.5	48×2.5	7/0.67	2.6	31.2/39.0	2032
RS/B2-3G5G-6P0.75S	6×2×0.75	7/0.37	2.0	19.7/24.6	372















# **TYPE C1 & C2 Railway Signalling Cable**

## Applications

The cables are designed for railway signalling systems. The cables are suitable for use in d.c. circuits where the nominal voltage to earth does not exceed 1100 volts and installation in ducts.

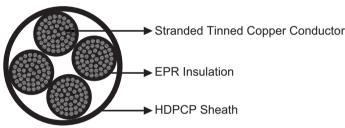
#### Standard

NR/PS/SIG/00005(formerly RT/E/PS/00005)



#### **№** Construction

- Conductors: Tinned stranded copper, class 5 according to IEC 60228 & BS 6360.
  - Insulation: EPR Type GP4 to BS 7655.
  - Core Wrapping: Plastic tape(s) with overlapping.
  - Sheath: HDPCP Type RS2 to BS 7655.



#### ■ Flectrical Characteristics at 20°C

Nominal Conductor Cross Section	mm²	2.5
Maximum DC Conductor Resistance	Ω/km	8.21
Voltage Rating	KV	0.65/1.1
Nominal Insulation Thickness	mm	1.05

# ■ Mechanical and Thermal Properties

- Minimum Bending Radius: 6×OD (static); 15×OD (dynamic)
- Temperature Range: -25°C to +85°C (during operation); -10°C to +85°C (during installation)







Impact Resistant

Highly Flexible 650/1100V

Oil Resistant





Weather Resistant Rated Voltage

Laid In Ducts

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km
	T	ype C1			
RS/C1-3G5G-1G2.5	1×2.5	50/0.25	3.8	11.2/14.0	195
	T	ype C2			
RS/C2-3G5G-2G2.5	2×2.5	50/0.25	3.8	14.9/18.8	370
RS/C2-3G5G-4G2.5	4×2.5	50/0.25	3.8	16.4/20.9	460
RS/C2-3G5G-7G2.5	7×2.5	50/0.25	3.8	18.7/23.7	610
RS/C2-3G5G-10G2.5	10×2.5	50/0.25	3.8	22.5/28.6	920
RS/C2-3G5G-12G2.5	12×2.5	50/0.25	3.8	23.2/29.3	950
RS/C2-3G5G-16G2.5	16×2.5	50/0.25	3.8	25.3/32.0	1180

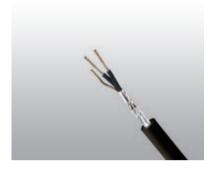
Routine test voltage: 2.5kV for 5 minute

■ Dimensions and Weight

# **TYPE C3 Railway Signalling Cable**

# Applications

The cables are designed for railway signalling systems. The cables are suitable for use in d.c. circuits where the nominal voltage to earth does not exceed 1100 volts and installation in ducts.

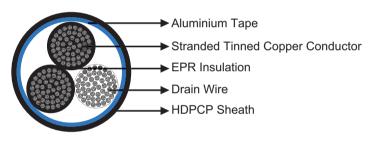


#### Standard

NR/PS/SIG/00005(formerly RT/E/PS/00005)

#### **№** Construction

- Conductors: Tinned stranded copper, class 5 according to IEC 60228 & BS 6360.
  - Insulation: EPR Type GP4 to BS 7655.
  - Screen: Aluminium tape.
  - Drain Wire: 2.5 mm<sup>2</sup> flexible tinned copper.
  - Sheath: HDPCP Type RS2 to BS 7655.



#### **№** Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm²	2.5
Maximum DC Conductor Resistance	Ω/km	8.21
Minimum Noise Reduction	dB	60
Voltage Rating	KV	0.65/1.1
Nominal Insulation Thickness	mm	1.05

# ■ Mechanical and Thermal Properties

- Minimum Bending Radius: 6×OD (static); 15×OD (dynamic)
- Temperature Range: -25°C to +85°C (during operation); -10°C to +85°C (during installation)







Impact Resistant





Weather Resistant Rated Voltage

Laid In Ducts

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km				
Type C3									
RS/C3-3G(St)5G-1P2.5S	1×2×2.5	50/0.25	3.8	15.0/20.0	390				

Dimensions and Weight

Cable Code	Sectional Area No.×mm²	Strands No/mm	Thickness mm	Min/Max mm	kg/km				
Type C3									
S/C3-3G(St)5G-1P2.5S	1×2×2.5	50/0.25	3.8	15.0/20.0	390				
Routine test voltage: 2.5kV f	or 5 minutes								



# **TYPE D1 & D2 Railway Signalling Cable**

## Applications

The cables are designed for railway signalling systems. The cables are suitable for use in d.c. circuits where the nominal voltage to earth does not exceed 1100 volts and installation in ducts.



#### **■** Standards

• NR/PS/SIG/00005(formerly RT/E/PS/00005)

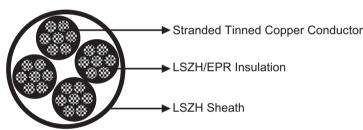
#### **№** Construction

• Conductors: Tinned stranded copper, according to IEC 60228 class 2& BS 6360.

• Insulation: LSZH or EPR Type GP4 to BS 7655.

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

• Sheath: LSZH.



### ■ Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm²	0.75	1.5	2.5	10.0	16.0	35.0	70.0	95.0
Maximum DC Conductor Resistance	Ω/km	24.8	12.2	7.56	1.84	1.16	0.529	0.27	0.195
Voltage Rating	KV	0.65/1.1							
Nominal Insulation Thickness	mm	0.85	8.0	0.8	1.0	1.0	1.2	1.4	1.6

# ■ Mechanical and Thermal Properties

- Minimum Bending Radius: 6×OD (static); 15×OD (dynamic)
- Temperature Range: -25°C to +85°C (during operation); -10°C to +85°C (during installation)

# Dimensions and Weight

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km				
	Type D1								
RS/D1-3GH-1G0.75	1×0.75	7/0.37	2.0	6.5/8.1	25				
RS/D1-3GH-1G1.5	1×1.5	7/0.53	2.0	6.8/8.5	30				
RS/D1-3GH-1G2.5	1×2.5	7/0.67	2.0	7.2/8.9	34				
RS/D1-3GH-1G10	1×10.0	7/1.35	2.0	9.4/11.8	205				
RS/D1-3GH-1G35	1×35.0	19/1.53	2.0	12.9/16.1	495				

# RAILSIG RAILWAY SIGNALLING & CONTROL CABLES

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km
		Type D2			
RS/D2-3GH-2G1.5	2×1.5	7/0.53	2.0	9.4/12.1	140
RS/D2-3GH-2G2.5	2×2.5	7/0.67	2.0	10.5/13.1	170
RS/D2-3GH-2G10	2×10.0	7/1.35	2.0	15.0/18.7	383
RS/D2-3GH-2G16	2×16.0	7/1.70	2.0	16.7/20.9	625
RS/D2-3GH-2G35	2×35.0	19/1.53	2.2	22.3/27.8	994
RS/D2-3GH-2G70	2×70.0	19/2.14	2.4	28.8/36.0	2121
RS/D2-3GH-2G95	2×95.0	19/2.52	2.6	33.2/41.5	2760
RS/D2-3GH-4G0.75	4×0.75	7/0.37	2.0	10.2/12.8	150
RS/D2-3GH-7G0.75	7×0.75	7/0.37	2.0	11.8/14.7	225
RS/D2-3GH-10G0.75	10×0.75	7/0.37	2.0	14.4/18.0	280
RS/D2-3GH-12G0.75	12×0.75	7/0.37	2.0	14.8/18.5	321
RS/D2-3GH-19G0.75	19×0.75	7/0.37	2.0	17.0/21.3	425
RS/D2-3GH-27G0.75	27×0.75	7/0.37	2.0	20.1/25.1	606
RS/D2-3GH-37G0.75	37×0.75	7/0.37	2.2	22.7/28.4	786
RS/D2-3GH-48G0.75	48×0.75	7/0.37	2.2	25.7/32.2	972
RS/D2-3GH-4G1.5	4×1.5	7/0.53	2.0	10.9/13.7	250
RS/D2-3GH-7G1.5	7×1.5	7/0.53	2.0	12.6/15.8	370
RS/D2-3GH-10G1.5	10×1.5	7/0.53	2.0	15.6/19.4	410
RS/D2-3GH-12G1.5	12×1.5	7/0.53	2.0	16.0/20.0	410
RS/D2-3GH-19G1.5	19×1.5	7/0.53	2.0	18.5/23.1	615
RS/D2-3GH-27G1.5	27×1.5	7/0.53	2.2	22.2/27.8	897
RS/D2-3GH-37G1.5	37×1.5	7/0.53	2.2	25.1/31.4	1126
RS/D2-3GH-48G1.5	48×1.5	7/0.53	2.4	28.1/35.1	1280
RS/D2-3GH-4G2.5	4×2.5	7/0.67	2.0	11.9/14.8	340
RS/D2-3GH-7G2.5	7×2.5	7/0.67	2.0	13.8/17.2	500
RS/D2-3GH-10G2.5	10×2.5	7/0.67	2.0	17.1/21.3	680
RS/D2-3GH-12G2.5	12×2.5	7/0.67	2.0	17.6/22.0	613
RS/D2-3GH-19G2.5	19×2.5	7/0.67	2.0	20.4/25.5	815
RS/D2-3GH-27G2.5	27×2.5	7/0.67	2.2	24.6/30.7	1200
RS/D2-3GH-37G2.5	37×2.5	7/0.67	2.4	27.8/34.7	1600
RS/D2-3GH-48G2.5	48×2.5	7/0.67	2.6	31.2/39.0	1960



Impact Resistant



Highly Flexible



Oil Resistant



Weather Resistant



Rated Voltage



Laid In Ducts



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/EN50266



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



# **TYPE E1 & E2 Railway Signalling Cable**

## Applications

The cables are designed for railway signalling systems. The cables are suitable for use in d.c. circuits where the nominal voltage to earth does not exceed 1100 volts and installation in ducts.



#### **№** Standards

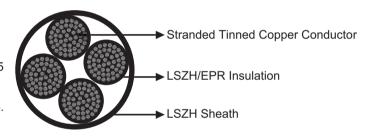
• NR/PS/SIG/00005(formerly RT/E/PS/00005)

#### **№** Construction

• Conductors: Tinned stranded copper, class 5 according to IEC 60228 & BS 6360.

• Insulation: LSZH or EPR Type GP4 to BS 7655.

• Outer Sheath: LSZH.



#### ➡ Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm²	2.5
Maximum DC Conductor Resistance	Ω/km	8.21
Voltage Rating	KV	0.65/1.1
Nominal Insulation Thickness	mm	1.05

# Mechanical and Thermal Properties

- Minimum Bending Radius: 6×OD (static); 15×OD (dynamic)
- $\bullet$  Temperature Range: -25°C to +85°C (during operation); -10°C to +85°C (during installation)

# Dimensions and Weight

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km
		Type E1			
RS/E1-3GH-1G2.5	1×2.5	50/0.25	3.8	11.2/14.0	200
		Type E2			
RS/E2-3GH-2G2.5	2×2.5	50/0.25	3.8	14.9/18.8	380
RS/E2-3GH-4G2.5	4×2.5	50/0.25	3.8	16.4/20.9	470
RS/E2-3GH-7G2.5	7×2.5	50/0.25	3.8	18.7/23.7	625
RS/E2-3GH-10G2.5	10×2.5	50/0.25	3.8	22.5/28.6	940

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km
RS/E2-3GH-12G2.5	12×2.5	50/0.25	3.8	23.2/29.3	980
RS/E2-3GH-16G2.5	16×2.5	50/0.25	3.8	25.3/32.0	1200
RS/E2-3GH-1P2.5S	1×2×2.5	50/0.25	3.8	15.0/20.0	341

Routine test voltage: 2.5kV for 5 minutes



Impact Resistant



Highly Flexible



Oil Resistant



Weather Resistant



Rated Voltage



Laid In Ducts



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/EN50266



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

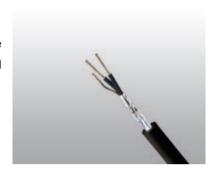




# **TYPE E3 Railway Signalling Cable**

# Applications

The cables are designed for railway signalling systems. The cables are suitable for use in d.c. circuits where the nominal voltage to earth does not exceed 1100 volts and installation in ducts.



#### Standards

• NR/PS/SIG/00005(formerly RT/E/PS/00005)

#### **№** Construction

• Conductor: Tinned stranded copper, according to IEC 60228 class 5& BS 6360.

• Insulation: LSZH or EPR Type GP4 to BS 7655.

• Screen: Aluminium tape.

• Drain Wire: 2.5 mm² flexible tinned copper.

• Sheath: LSZH.



#### ■ Electrical Characteristics at 20°C

Nominal Conductor Cross Section	mm²	2.5
Maximum DC Conductor Resistance	Ω/km	8.21
Minimum Noise Reduction	dB	60
Voltage Rating	KV	0.65/1.1
Nominal Insulation Thickness	mm	1.05

# Mechanical and Thermal Properties

- Minimum Bending Radius: 6×OD (static); 15×OD (dynamic)
- Temperature Range: -25°C to +85°C (during operation); -10°C to +85°C (during installation)

# ■ Dimensions and Weight

Cable Code	No. of cores& Nominal Conductor Cross Sectional Area No.×mm²	No. & Nominal Diameter of Strands No/mm	Nominal Sheath Thickness mm	Overall Diameter Min/Max mm	Nominal Weight kg/km				
Type E3									
RS/E3-3G(St)H-1P2.5S	1 x 2 x 2.5	50/0.25	3.8	15.0/20.0	410				

Routine test voltage: 2.5kV for 5 minutes



Impact Resistant



Highly Flexible



Oil Resistant



Weather Resistant



Rated Voltage



oltage Laid In Ducts



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/EN50266



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



## EAPSP n×1×1.4

# Applications

The cables are used as railway cables and can be installed directly into the ground or in ducts.

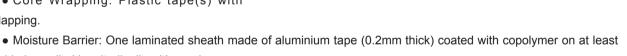
## Standards

RENFE E.T. 03.365.051.6



#### **№** Construction

- Conductors: Soft annealed solid copper, 1.4 mm nominal diameter.
  - Insulation: PE insulation.
- Stranding: Cores are helically stranded in concentric layers.
- Core Wrapping: Plastic tape(s) with overlapping.



- one side is applied longitudinally with overlap.
  - Inner Sheath: PE sheath.
  - Armour: One corrugated steel tape is longitudinally applied with overlap.
  - Outer Sheath: PE sheath.

## ■ Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	1.4
Maximum Conductor Resistance	Ω/km	11.7
Minimum Insulation Resistance @500 V DC	MΩ.km	25000
Resistance Unbalance	%	2
Test Voltage @50Hz 1min		
Core to Core	$V_{eff}$	2100
Core to Screen	$V_{eff}$	2500
Core to Armouring	$V_{eff}$	2000

# Mechanical and Thermal Properties

- Minimum Bending Radius: 10×OD
- Temperature Range: -30°C to +70°C (during operation); -10°C +50°C (during installation)



# ■ Dimensions and Weight

Cable Code	Number of Cores	Nominal Sheath Thickness mm		Maximum Overall Diameter	Nominal Weight	
		Inner	Outer	mm	kg/km	
1.4mm Conductor, 2.6mm Insulated Wire						
RS/EAPSP-2Y(L)2Y(SR)2Y-4C1.4	4	1.3	1.4	15.7	270	
RS/EAPSP-2Y(L)2Y(SR)2Y-7C1.4	7	1.3	1.4	17.1	350	
RS/EAPSP-2Y(L)2Y(SR)2Y-9C1.4	9	1.3	1.4	19.9	420	
RS/EAPSP-2Y(L)2Y(SR)2Y-12C1.4	12	1.3	1.4	20.0	480	
RS/EAPSP-2Y(L)2Y(SR)2Y-19C1.4	19	1.3	1.4	22.0	630	
RS/EAPSP-2Y(L)2Y(SR)2Y-27C1.4	27	1.3	1.4	24.8	810	
RS/EAPSP-2Y(L)2Y(SR)2Y-37C1.4	37	1.3	1.4	26.9	1010	
RS/EAPSP-2Y(L)2Y(SR)2Y-48C1.4	48	1.3	1.4	29.7	1240	
RS/EAPSP-2Y(L)2Y(SR)2Y-61C1.4	61	1.3	1.4	31.8	1490	



**UV** Resistant











Rated Voltage Buried in Ciround

Laid In Ducts IEC 60754-1/NF C20-454 EN 50267-2-1





## CCPSSP-FR0.3 n×1×1.4

## Applications

The cables are used as railway cables and can be installed directly into the ground or in ducts.

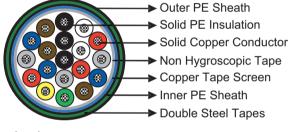
#### Standards

• RENFE E.T. 03.365.051.6



#### **№** Construction

- Conductors: Soft annealed solid copper, 1.4 mm nominal diameter.
  - Insulation: PE insulation.
- Stranding: Cores are helically stranded in concentric layers.
  - Core Wrapping: Two or more layers of plastic tape(s) with overlapping.
  - Screen: Copper tapes with overlap (protection against interference).
  - Inner Sheath: PE sheath.
  - Armour: Two layers of steel tape (0.8mm thick).
  - Outer Sheath: PE sheath.



#### ■ Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	1.4
Maximum Conductor Resistance	Ω/km	11.9
Minimum Insulation Resistance @500 V DC	MΩ.km	15000
Resistance Unbalance	%	2
Test Voltage @50Hz 1min		
Core to Core	$V_{eff}$	2100
Core to Screen	$V_{eff}$	2500
Reduction Factor @100V/km 50Hz		0.3

# Mechanical and Thermal Properties

- Minimum Bending Radius: 10×OD
- Temperature Range: -40°C to +60°C (during operation); -10°C +60°C (during installation)

# **▶** Dimensions and Weight

Cable Code	Number of	Nominal Sheath Thickness mm		Maximum Overall Diameter	Nominal Weight		
	Cores	Inner	Outer	mm	kg/km		
1.4mm Conductor, 2.6mm Insulated Wire							
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-2C1.4	2	1.5	1.6	16.5	530		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-4C1.4	4	1.5	1.6	17.5	608		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-7C1.4	7	1.5	1.6	19.0	718		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-9C1.4	9	1.5	1.6	22.7	914		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-12C1.4	12	1.5	1.6	23.2	977		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-19C1.4	19	1.6	1.8	25.2	1185		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-27C1.4	27	1.6	1.8	28.1	1437		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-37C1.4	37	1.7	1.8	31.4	1754		
RS/CCPSSP-FR0.3-2Y(K)2YB2Y-48C1.4	48	1.7	1.8	34.2	2062		















Water Resistant

Rated Voltage Buried in Ciround

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





## CCTSST-FR0.3 n×1×1.4

## Applications

The cables are used as railway cables and can be installed directly into the ground or in ducts.

#### **≥** Standards

RENFE E.T. 03.365.051.6



#### **№** Construction

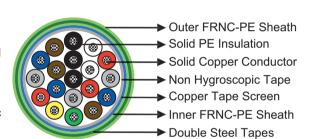
- Conductors: Soft annealed solid copper, 1.4 mm nominal diameter.
  - Insulation: PE insulation.
- Stranding: Cores are helically stranded in concentric layers.
  - Core Wrapping: Two or more layers of plastic tape(s) with overlapping.
  - Screen: Copper tapes with overlap (protection against interference).
  - Inner Sheath: FRNC-PE sheath, coloured green.
  - Armour: Two layers of steel tape (0.8mm thick).
  - Outer Sheath: FRNC-PE sheath, coloured green.
  - \*FRNC: Flame retardant, non corrosive.

## ■ Electrical Characteristics at 20°C

Nominal Conductor Diameter	mm	1.4
Maximum Conductor Resistance	Ω/km	11.7
Minimum Insulation Resistance @500 V DC	MΩ.km	35000
Resistance Unbalance	%	2
Test Voltage @50Hz 1min		
Core to Core	$V_{ m eff}$	2100
Core to Screen	$V_{ m eff}$	2500
Reduction Factor @100V/km 50Hz		0.3

# ■ Mechanical and Thermal Properties

- Minimum Bending Radius: 10×OD
- Temperature Range: -40°C to +60°C (during operation); -10°C +60°C (during installation)



# ■ Dimensions and Weight

Cable Code	Number of Cores	Nominal Sheath Thickness mm		Maximum Overall Diameter	Nominal Weight	
	of Cores	Inner	Outer	mm	kg/km	
1.4mm Conductor, 2.6mm Insulated Wire						
RS/CCTSST-FR0.3-2Y(K)HBH-4C1.4	4	1.5	1.6	18.0	705	
RS/CCTSST-FR0.3-2Y(K)HBH-19C1.4	19	1.6	1.8	26.1	1362	
RS/CCTSST-FR0.3-2Y(K)HBH-27C1.4	27	1.6	1.8	29.2	1648	
RS/CCTSST-FR0.3-2Y(K)HBH-48C1.4	48	1.7	1.8	36.7	2348	



Anti Induction



**UV** Resistant



Water Resistant



Rated Voltage



Buried in Ciround



und Laid In Ducts



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/EN50266



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

