

2-conductor Speaker Cable

2-conductor loud speaker cable for fixed installation.

Key Features and Benefits

- 2-conductor style construction.
- Use in building conduits.



For inquiries about this products




2-conductor Speaker Cable

Tech Data

Downloads

2-conductor Speaker Cable

Type	Model	Sales units	Nom. O.D.	Weight	Composition				Electrical characteristics	
					No. of cond.	Cross sec. area.	Cond. comp.	Twist pitch	Cond. DCR	Nom. capacitance*
 Jacket color Gry Blk	2S7F	100 200 400	6.8	5.2	2	1.27 (16)	50/0.18A	50	1.5	56
	2S9F		8.9	8.7	2	2.18 (14)	41/0.26A	60	0.9	56
	2S11F		11.1	14	2	3.62 (12)	45/0.32A	80	0.5	55
	2S14F		13.8	21	2	5.63 (10)	70/0.32A	90	0.3	55
	2S7FG		6.8	5.2	2	1.27 (16)	50/0.18 (OFC)	50	1.5	56
	2S9FG		8.9	8.7	2	2.18 (14)	41/0.26 (OFC)	60	0.9	56
	2S11FG		11.1	14	2	3.62 (12)	45/0.32 (OFC)	80	0.5	55
	2S14FG		13.8	21	2	5.63 (10)	70/0.32 (OFC)	90	0.3	55

Insulation: polyethylene (orange, white), Jacket: PVC, Dielectric strength: 500V AC/min. *Capacitance between conductors.

Key Features and Benefits / 2S7F, 2S9F, 2S11F, 2S14F

- Special supple jacket designed for use in building conduits.

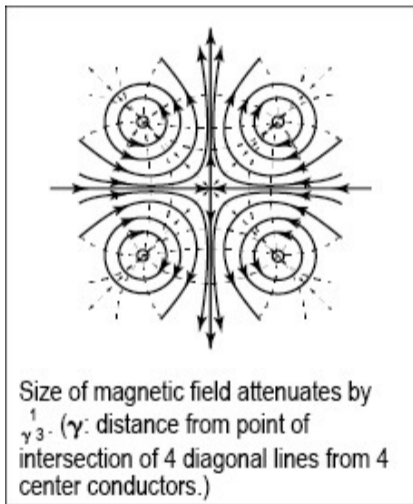
Key Features and Benefits / 2S7FG, 2S9FG, 2S11FG, 2S14FG

- The G versions feature oxygen-free copper (OFC, JIS H3510) conductors.

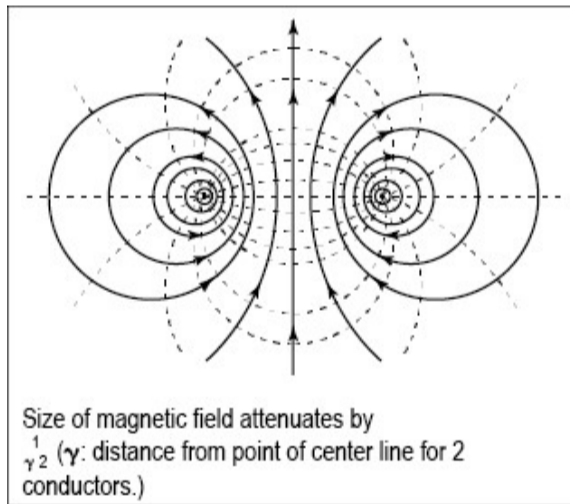
Technical Note

Four-conductor Configuration Minimizes Noise

Speaker cable must accommodate relatively high signal levels, typically tens to hundreds of watts of RMS power. Electromagnetic interference (EMI) can radiate from these speaker lines directly into adjacent low voltage cables (i.e. microphone, video, lines, etc.). Canare solves this problem by using a 4-conductor "Star Quad" configuration in all of our 4S-series speaker cables. Because every conductor is located the same distance from center, the opposing magnetic fields are cancelled out. Attenuation of magnetic field radiation is superior when compared to a standard 2-conductor speaker wire.



Four-conductor cable



Two-conductor cable

Selecting the Right Speaker Cable

Always try to keep speaker cables as short as possible and select cable models that offer a higher damping factor; 20-50 for music (i.e. connect sound) and 10-20 for speech (i.e. sport stadiums).

The greater the damping factor (DF), the better the ability to control speaker excursion to create sharp, clear quality in the low end frequency range

$$\text{damping factor} = \frac{\text{speaker impedance}}{\text{power amp. output impedance} + \text{cable cond. resist. for total loop}}$$

As the above formula shows, a higher conductor resistance causes a lower damping factor, which prevents even top quality power amps from performing at peak optimum levels.

Speaker Cable Length obtained from the Damping Factor (reference)

Model	Cross-sec. Area	Cond. Resist.	Cond. Resist. for Total Loop	Cable Length (m)	
	mm ² / AWG	ohm/100m	ohm/m	DF = 20	DF = 50
4S6(G)	1.02/17 (pair)	1.85	0.037	9.5	3.0
4S8(G)	2.52/14 (pair)	0.75	0.015	23.3	7.3
4S11(G)	4.36/11 (pair)	0.45	0.009	38.9	12.2
4S10F(G)	3.50/15 (pair)	0.55	0.011	31.8	10.0
4S12F(G)	5.62/13 (pair)	0.35	0.007	50.0	15.7
4S14F(G)	8.00/12 (pair)	0.25	0.005	70.0	22.0
4S18F(G)	14.16/9 (pair)	0.15	0.003	116.7	36.7
S410-*P	2.00/18 (pair)	0.95	0.019	18.4	5.8
2S7F(G)	1.27/16	1.5	0.030	11.7	3.7
2S9F(G)	2.18/14	0.9	0.018	19.4	6.1
2S11F(G)	3.62/12	0.5	0.010	35.0	11.0
2S14F(G)	5.63/10	0.3	0.006	58.3	18.3
2S15G	2.49/14	0.7	0.014	25.0	7.9

Conditions: Speaker impedance = 8 ohm, Power amplifier output impedance = 0.05 ohm

Product Specification (2S7F)

Canare Electric Co., Ltd

1. **Scope** This product specification covers the performance of the Loud Speaker cable.

2. **General Specifications**

(1) **Product Name** Speaker Cable

(2) **Model Name** 2S7F

(3) **Construction and Appearance** As shown in Fig.1 and Table 1

Fig. 1

Color of the Insulation

1	2
Orange	White

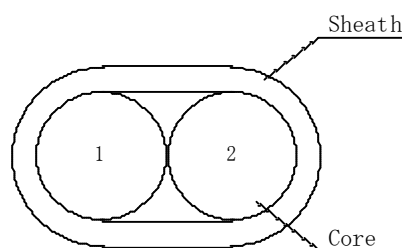


Table 1

Item	Standard Value	Note
No. of Conductor	2	1 Pair
Core	Construction (qty/mm)	50/0.18A
	Nom. Cross Section Area (mm ²)	1.27
	Outer Diameter (mm)	1.47
	Insulation	Thickness (mm)
	Outer Diameter (mm)	2.49
Strand	Pitch (mm)	≤ 50
Sheath	Thickness (mm)	0.9
	Color	Grey, Black Custom colors available
	Marking	Speaker Cable 2S7F CANARE <Year code> MADE IN JAPAN
Outer Diameter (mm)	6.8	

(4) **Weight** Approx. 5.2kg/100m

(5) **Package** 100m, 200m, 400m : Coil+Cardboard box

Over 490m : Wooden reel

2. Rating, Standard

- (1) **Rated Voltage** AC60Vrms
(2) **Temperature Range** -20~+60°C

3. Electrical Characteristics

Item	Standard Value	Test Method
D.C. Resistance	$\leq 14.9 \Omega / \text{km}$ (20°C)	JIS C3005
Insulation Resistance	$\geq 1000 \text{M}\Omega \cdot \text{km}$	JIS C3005
Voltage Proof	AC500V 1minute Not Breakdown	JIS C3005

4. Mechanical Characteristics

Item	Standard Value	Test Method	
Tensile properties of Sheath	Tensile strength	$\geq 10.0 \text{ Mpa}$	JIS C3005
	Elongation	$\geq 190 \%$	JIS C3005

5. Environment Characteristics

Item	Standard Value	Test Method
Flame Retardance	Flame must extinguish naturally within 60 seconds.	Perform inclination test according to JIS C3005.

Note: Testing must be performed under standard conditions set down in “JIS C 60068-1 General Environmental Testing Rules (Electric/Electronics).”

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35°C, a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.

Product Specification (2S9F)

Canare Electric Co., Ltd

1. **Scope** This product specification covers the performance of the Loud Speaker cable.

2. **General Specifications**

(1) **Product Name** Speaker Cable

(2) **Model Name** 2S9F

(3) **Construction and Appearance** As shown in Fig.1 and Table 1

Fig. 1

Color of the Insulation

1	2
Orange	White

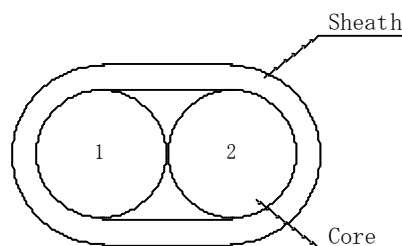


Table 1

Item	Standard Value	Note
No. of Conductor	2	1 Pair
Core	Construction (qty/mm)	41/0.26A
	Nom. Cross Section Area (mm ²)	2.18
	Outer Diameter (mm)	1.95
	Insulation	Thickness (mm)
Outer Diameter (mm)		3.37
Strand	Pitch (mm)	<= 60
Sheath	Thickness (mm)	1.1
	Color	Grey, Black Custom colors available
	Marking	Speaker Cable 2S9F CANARE <Year code> MADE IN JAPAN
Outer Diameter (mm)	8.9	

(4) **Weight** Approx. 8.7kg/100m

(5) **Package** 100m, 200m : Coil+Cardboard box

Over 290m : Wooden reel

2. Rating, Standard

- (1) **Rated Voltage** AC60Vrms
 (2) **Temperature Range** -20~+60°C

3. Electrical Characteristics

Item	Standard Value	Test Method
D.C. Resistance	$\leq 8.8 \Omega / \text{km}$ (20°C)	JIS C3005
Insulation Resistance	$\geq 1000M\Omega \cdot \text{km}$	JIS C3005
Voltage Proof	AC500V 1minute Not Breakdown	JIS C3005

4. Mechanical Characteristics

Item	Standard Value	Test Method	
Tensile properties of Sheath	Tensile strength	$\geq 10.0 \text{ Mpa}$	JIS C3005
	Elongation	$\geq 190 \%$	JIS C3005

5. Environment Characteristics

Item	Standard Value	Test Method
Flame Retardance	Flame must extinguish naturally within 60 seconds.	Perform inclination test according to JIS C3005.

Note: Testing must be performed under standard conditions set down in “JIS C 60068-1 General Environmental Testing Rules (Electric/Electronics).”

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35°C, a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.

Product Specification (2S11F)

Canare Electric Co., Ltd

1. **Scope** This product specification covers the performance of the Loud Speaker cable.

2. **General Specifications**

(1) **Product Name** Speaker Cable

(2) **Model Name** 2S11F

(3) **Construction and Appearance** As shown in Fig.1 and Table 1

Color of the Insulation

1	2
Orange	White

Fig. 1

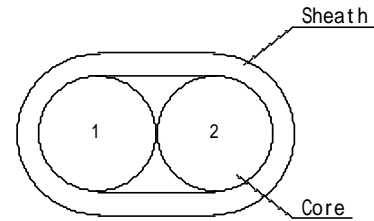


Table 1

Item		Standard Value	Note
No. of Conductor		2	1 Pair
Core	Inner Conductor	Construction (qty/mm)	45/0.32A
		Nom. Cross Section Area(mm ²)	3.62
		Outer Diameter (mm)	2.48
	Insulation	Thickness (mm)	0.93
Outer Diameter (mm)		4.34	
Strand	Pitch (mm)	<= 80	Pair
Sheath	Thickness (mm)	1.2	PVC
	Color	Grey , Black Custom colors available	
	Marking	Speaker Cable 2S11F CANARE <Year> MADE IN JAPAN	
Outer Diameter (mm)		11.1	

(4) **Weight** Approx. 14kg / 100m

(5) **Package** 100m, 200m : Coil + Cardboard box
Over 210m : Wooden reel

2. Rating, Standard

- (1) **Rated Voltage** AC60Vrms
 (2) **Temperature Range** -20 ~ +60

3. Electrical Characteristics

Item	Standard Value	Test Method
D.C. Resistance	$\leq 5.2 \text{ } \Omega/\text{km}$ (20)	JIS C3005
Insulation Resistance	$\geq 1000\text{M } \cdot \text{km}$	JIS C3005
Voltage Proof	AC500V 1minute Not Breakdown	JIS C3005

4. Mechanical Characteristics

Item	Standard Value	Test Method
Tensile properties of Sheath	Tensile strength	$\geq 10.0 \text{ Mpa}$
	Elongation	$\geq 190 \%$

5. Environment Characteristics

Item	Standard Value	Test Method
Flame Retardance	Flame must extinguish naturally within 60 seconds.	Perform inclination test according to JIS C3005.

Note: Testing must be performed under standard conditions set down in “JIS C 60068-1 General Environmental Testing Rules (Electric/Electronics).”

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35 , a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.

Product Specification (2S14F)

Canare Electric Co., Ltd

1. **Scope** This product specification covers the performance of the Loud Speaker cable.

2. **General Specifications**

(1) **Product Name** Speaker Cable

(2) **Model Name** 2S14F

(3) **Construction and Appearance** As shown in Fig.1 and Table 1

Fig. 1

Color of the Insulation

1	2
Orange	White

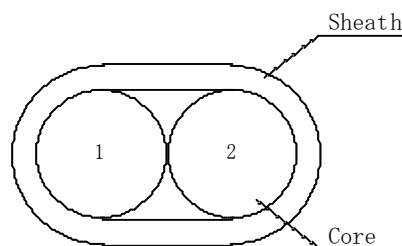


Table 1

Item		Standard Value	Note
No. of Conductor		2	1 Pair
Core	Inner Conductor	Construction (qty/mm)	70/0.32A
		Nom. Cross Section Area (mm ²)	5.63
		Outer Diameter (mm)	3.09
	Insulation	Thickness (mm)	1.16
Outer Diameter (mm)		5.41	
Strand		Pitch (mm)	<= 90
Sheath		Thickness (mm)	1.5
		Color	Grey, Black Custom colors available
		Marking	Speaker Cable 2S14F CANARE <Year code> MADE IN JAPAN
Outer Diameter (mm)		13.8	

(4) **Weight** Approx. 21.0kg/100m

(5) **Package** 100m : Coil+Cardboard box

Over 120m : Wooden reel

2. Rating, Standard

- (1) **Rated Voltage** AC60Vrms
 (2) **Temperature Range** -20~+60°C

3. Electrical Characteristics

Item	Standard Value	Test Method
D.C. Resistance	$\leq 3.4 \Omega / \text{km}$ (20°C)	JIS C3005
Insulation Resistance	$\geq 1000 \text{M}\Omega \cdot \text{km}$	JIS C3005
Voltage Proof	AC500V 1minute Not Breakdown	JIS C3005

4. Mechanical Characteristics

Item	Standard Value	Test Method	
Tensile properties of Sheath	Tensile strength	$\geq 10.0 \text{ Mpa}$	JIS C3005
	Elongation	$\geq 190 \%$	JIS C3005

5. Environment Characteristics

Item	Standard Value	Test Method
Flame Retardance	Flame must extinguish naturally within 60 seconds.	Perform inclination test according to JIS C3005.

Note: Testing must be performed under standard conditions set down in “JIS C 60068-1 General Environmental Testing Rules (Electric/Electronics).”

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35°C, a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.

Product Specification (2S9FG)

Canare Electric Co., Ltd

1. **Scope** This product specification covers the performance of the Loud Speaker cable.

2. **General Specifications**

(1) **Product Name** Speaker Cable

(2) **Model Name** 2S9FG

(3) **Construction and Appearance** As shown in Fig.1 and Table 1

Color of the Insulation

1	2
Orange	White

Fig. 1

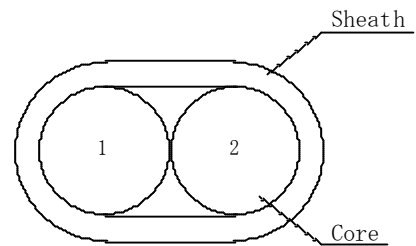


Table 1

Item		Standard Value	Note
No. of Conductor		2	1 Pair
Core	Inner Conductor	Construction (qty/mm)	41/0.26
		Nom. Cross Section Area (mm ²)	2.18
		Outer Diameter (mm)	1.95
	Insulation	Thickness (mm)	0.71
Outer Diameter (mm)		3.37	
Strand		Pitch (mm)	<= 60
Sheath		Thickness (mm)	1.1
		Color	Grey, Black Custom colors available
		Marking	Speaker Cable 2S9FG CANARE <Year code> MADE IN JAPAN
Outer Diameter (mm)		8.9	

(4) **Weight** Approx. 8.7kg/100m

(5) **Package** 100m, 200m : Coil+Cardboard box
Over 290m : Wooden reel

2. Rating, Standard

- (1) Rated Voltage AC60Vrms
- (2) Temperature Range -20~+60°C

3. Electrical Characteristics

Item	Standard Value	Test Method
D.C. Resistance	$\leq 8.6 \Omega / \text{km}$ (20°C)	JIS C3005
Insulation Resistance	$\geq 1000 M\Omega \cdot \text{km}$	JIS C3005
Voltage Proof	AC500V 1minute Not Breakdown	JIS C3005

4. Mechanical Characteristics

Item	Standard Value	Test Method
Tensile properties of Sheath	Tensile strength $\geq 10.0 \text{ Mpa}$	JIS C3005
	Elongation $\geq 190 \%$	JIS C3005

5. Environment Characteristics

Item	Standard Value	Test Method
Flame Retardance	Flame must extinguish naturally within 60 seconds.	Perform inclination test according to JIS C3005.

Note: Testing must be performed under standard conditions set down in “JIS C 60068-1 General Environmental Testing Rules (Electric/Electronics).”

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35°C, a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.

Product Specification (2S11FG)

Canare Electric Co., Ltd

1. **Scope** This product specification covers the performance of the Loud Speaker cable.

2. **General Specifications**

(1) **Product Name** Speaker Cable

(2) **Model Name** 2S11FG

(3) **Construction and Appearance** As shown in Fig.1 and Table 1

Color of the Insulation

1	2
Orange	White

Fig. 1

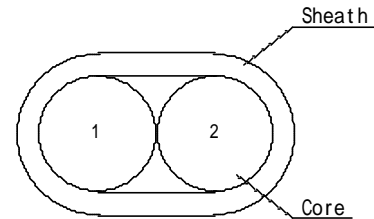


Table 1

Item		Standard Value	Note
No. of Conductor		2	1 Pair
Core	Inner Conductor	Construction (qty/mm)	45/0.32
		Nom. Cross Section Area(mm ²)	3.62
		Outer Diameter (mm)	2.48
	Insulation	Thickness (mm)	0.93
Outer Diameter (mm)		4.34	
Strand		Pitch (mm)	<= 80
Sheath		Thickness (mm)	1.2
		Color	Grey , Black Custom colors available
		Marking	Speaker Cable 2S11FG CANARE <Year> MADE IN JAPAN
Outer Diameter		11.1	

(4) **Weight** Approx. 14kg / 100m

(5) **Package** 100m, 200m : Coil + Cardboard box
Over 210m : Wooden reel

2. Rating, Standard

- (1) **Rated Voltage** AC60Vrms
 (2) **Temperature Range** -20 ~ +60

3. Electrical Characteristics

Item	Standard Value	Test Method
D.C. Resistance	$\leq 5.1 \text{ } \Omega/\text{km}$ (20)	JIS C3005
Insulation Resistance	$\geq 1000\text{M } \cdot \text{km}$	JIS C3005
Voltage Proof	AC500V 1minute Not Breakdown	JIS C3005

4. Mechanical Characteristics

Item	Standard Value	Test Method
Tensile properties of Sheath	Tensile strength	$\geq 10.0 \text{ Mpa}$
	Elongation	$\geq 190 \%$

5. Environment Characteristics

Item	Standard Value	Test Method
Flame Retardance	Flame must extinguish naturally within 60 seconds.	Perform inclination test according to JIS C3005.

Note: Testing must be performed under standard conditions set down in “JIS C 60068-1 General Environmental Testing Rules (Electric/Electronics).”

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35 , a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.