KX & RG COAXIAL CABLES

KX/RG

Applications

Coaxial cables for high frequency connections.

Coaxial cables from 50 Ω to 95 Ω

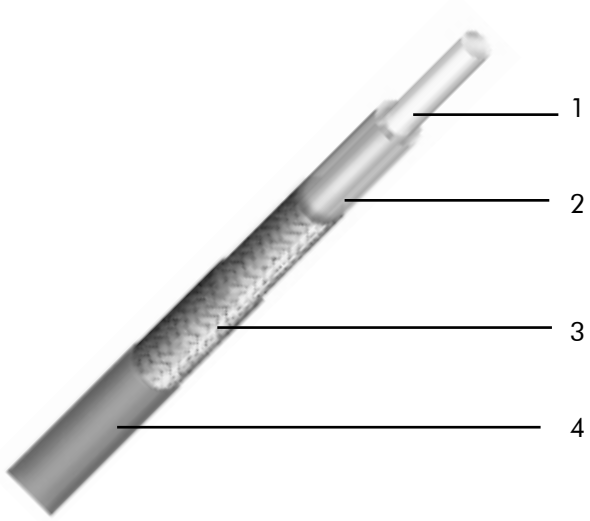
Construction

1- CONDUCTOR
Stranded or solid, in bare copper (BC), tin plated copper (TPC), silver plated copper (SPC), copper clad steel (CCS) or silver plated copper clad steel (SPCCS)

2- DIELECTRIC
PE or PTFE

3- SCREEN
Single or double braid in bare, tin plated or silver plated copper

4- SHEATH
PVC, FEP, PFA or glass fibre

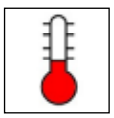


Bending radius

5 x overall diameter (for most coaxial cables)

Standards

MIL C17
NF C 93-550


See on the following pages


See on the following pages


Flexible

50 Ω KX & RG coaxial cables

Max. oper. temp.	Dielectric	References according to		Nexans ref.	Conductor			Dielectric Ø mm	Braids		Sheath		Av. weight kg/km	Application
		NF C93-550	MIL C17		Composition n x mm	Nature	Ø mm		Nb	Nature	Nature	Overall Ø mm		
85°C	PE	KX 3B		373095	7 x 0.16	CCS	0.48	1.50 ±0.10	1	TPC	PVC	2.54 ±0.13	10	①
			RG 174 AU	373171	7 x 0.16	CCS	0.48	1.52 ±0.08	1	TPC	PVC	2.79 ±0.13	12	①
		KX 15	RG 58 CU	373117	19 x 0.18	TPC	0.90	2.95 ±0.10	1	TPC	PVC	4.95 ±0.15	36	①
			RG 223 U	373184	1 x 0.89	SPC	0.89	2.95 ±0.10	2	SPC	PVC	5.38 ±0.10	55	①
		KX 4		373099	7 x 0.75	BC	2.25	7.25 ±0.15	1	BC	PVC	10.30 ±0.20	158	①
			RG 213 U	87023	7 x 0.75	BC	2.25	7.25 ±0.15	1	BC	PVC	10.30 ±0.20	158	①
			RG 214 U	373181	7 x 0.75	SPC	2.25	7.25 ±0.18	2	SPC	PVC	10.80 ±0.18	196	①
200°C AND +	PTFE	KX 21 A		87126	7 x 0.10	SPCCS	0.30	0.87 ±0.07	1	SPC	FEP	1.80 ±0.10	9.6	②
			RG 178 BU (M17/169-00001)	87069	7 x 0.10	SPCCS	0.30	0.84 ±0.05	1	SPC	FEP	1.80 ±0.10	9.6	②
			RG 196 (M17/93-00001)	87247	7 x 0.10	SPCCS	0.30	0.84 ±0.05	1	SPC	PFA	1.80 ±0.10	9.6	②
		KX 22 A		87017	7 x 0.17	SPCCS	0.51	1.50 ±0.10	1	SPC	FEP	2.50 ±0.10	17	②
			RG 316 U (M17/172-00001)	85790	7 x 0.17	SPCCS	0.51	1.52 ±0.08	1	SPC	FEP	2.49 ±0.10	17	②
			RG 188 AU (M17/138-00001)	87245	7 x 0.17	SPCCS	0.51	1.52 ±0.08	1	SPC	PFA	2.49 ±0.10	17	②
			RG 142 AU	87009	1 x 0.94	SPCCS	0.94	2.95 ±0.13	2	SPC	Glass fiber	5.10 ±0.15	66	③
			RG 142 BU (M17/158-00001)	87066	1 x 0.94	SPCCS	0.94	2.95 ±0.13	2	SPC	FEP	4.95 ±0.13	68	③
			RG 400 U (M17/175-00001)	87125	19 x 0.20	SPC	0.98	2.95 ±0.13	2	SPC	FEP	4.95 ±0.13	66	③
		KX 23		87063	7 x 0.34	SPC	1.02	2.95 ±0.15	2	SPC	Glass fiber	5.10 ±0.20	70	③
			RG 393 (M17/174-00001)	85398	7 x 0.80	SPC	2.40	7.24 ±0.13	2	SPC	FEP	9.91 ±0.25	241	③
		KX 24		87029	7 x 0.80	SPC	2.40	7.25 ±0.12	2	SPC	Glass fiber	10.90 ±0.25	216	③

BC : bare copper
TPC : tin plated copper
SPC : silver plated copper
CCS : copper clad steel
SPCCS : silver plated copper clad steel

① High frequency connections.

② High frequency connections operating at high temperature. By their small dimensions, they are mainly designed for miniaturized connections, operating at high or low temperature.

50 Ω KX & RG coaxial cables

Oper. temperature Min / Max	Fire properties	Max. op. frequency GHz	Nominal capacitance pF/m	Attenuation (db/100m)				Dielectric strength kV	Powers at 40°C (kw)				Velocity of propagation	Continuous working voltage
				200 MHz	400 MHz	3000 MHz	10000 MHZ		200 MHz	400 MHz	3000 MHz	10000 MHz		
-40 +85	NF C 32070/C2 IEC 60332-1&2	3	100.0	42	60	220		2	0.057	0.042	0.013		65.9	1100
-40 +85	NF C 32070/C2 IEC 60332-1&2	1	106.0	42	60	220		4.5	0.057	0.042	0.013		65.9	1100
-40 +85	NF C 32070/C2 IEC 60332-1&2	3	100.0	23	32	98		5	0.125	0.09	0.031		65.9	1400
-40 +85	NF C 32070/C2 IEC 60332-1&2	12.4	106.0	20	30	100	240	5	0.125	0.09	0.031	0.017	65.9	1400
-40 +85	NF C 32070/C2 IEC 60332-1&2	3	100.0	9.5	14.5	55		5	0.42	0.3	0.095	0.05	65.9	3700
-40 +85	NF C 32070/C2 IEC 60332-1&2	3	100.0	9.5	14.5	55		5	0.42	0.3	0.095	0.05	65.9	3700
-40 +85	NF C 32070/C2 IEC 60332-1&2	11	106.0	9	13	46	100	10	0.42	0.3	0.095	0.05	65.9	3700
-90 +200	NF C 32070/C1&C2 IEC 60332-1	3	95.0	65	95	300		1	0.085	0.057	0.018		69.5	750
-90 +200	NF C 32070/C1&C2 IEC 60332-1	3	105.0	58	80	225		2	0.085	0.057	0.018		69.5	750
-90 +230	NF C 32070/C1&C2 IEC 60332-1	3	105.0	58	80	225		2	0.085	0.057	0.018		69.5	750
-90 +200	NF C 32070/C1&C2 IEC 60332-1	3	95.0	40	55	160		2	0.17	0.11	0.032		69.5	900
-90 +200	NF C 32070/C1&C2 IEC 60332-1	3	105.0	40	55	160		2	0.17	0.11	0.032		69.5	900
-90 +230	NF C 32070/C1&C2 IEC 60332-1	3	105.0	40	55	160		2	0.17	0.11	0.032		69.5	900
-90 +250	NF C 32070/C1&C2 IEC 60332-1	3	95.0	19	27	79	163	5	0.66	0.45	0.15	0.08	69.5	1400
-90 +200	NF C 32070/C1&C2 IEC 60332-1	3	105.0	19	27	79	163	5	0.66	0.45	0.15	0.08	69.5	1400
-90 +200	NF C 32070/C1&C2 IEC 60332-1	3	105.0	20	29	89	185	5	0.66	0.45	0.15	0.08	69.5	1400
-90 +250	NF C 32070/C1&C2 IEC 60332-1	3	95.0	20	29	89	185	5	0.66	0.45	0.15	0.08	69.5	1400
-90 +200	NF C 32070/C1&C2 IEC 60332-1	11	105.0	9.3	14	47	109	4	2	1.3	0.43	0.22	69.5	3700
-90 +250	NF C 32070/C1&C2 IEC 60332-1	3	95.0	9.3	14	47	109	10	2	1.3	0.43	0.22	69.5	3700

③ High frequency connections operating at high temperature, or on equipment excepted to work under severe conditions without failure.

75 Ω KX & RG coaxial cables

Max. op. temp.	Dielectric	References according to		Nexans ref.	Conductor			Dielectric Ø mm	Braids		Sheath		Av. weight kg/km	Application
		NF C 93-550	MIL C17		Compo-sition n x Ø mm	Nature	Ø mm		Nb	Nature	Nature	Overall Ø mm		
85°C	PE		RG 59 BU	390650	1 x 0.58	CCS	0.58	3.71 ± 0.10	1	BC	PVC	6.15 ± 0.10	50	①
		KX 6A		373100	7 x 0.20	BC	0.60	3.70 ± 0.12	1	BC	PVC	6.10 ± 0.15	53	①
			RG 11 AU	373135	7 x 0.40	TPC	1.20	7.24 ± 0.18	1	BC	PVC	10.30 ± 0.18	136	①
			RG 216 U	373182	7 x 0.40	TPC	1.20	7.24 ± 0.18	2	BC	PVC	10.80 ± 0.18	177	①
		KX 8		373113	7 x 0.40	BC	1.20	7.25 ± 0.15	1	BC	PVC	10.30 ± 0.20	135	①
200°C and +	PTFE		RG 179 BU (M17/94-RG 179)	081997	7 x 0.10	SPCCS	0.30	1.60 ± 0.08	1	SPC	FEP	2.54 ± 0.13	16.9	②
			RG 187 AU (M17/136-00001)	087244	7 x 0.10	SPCCS	0.30	1.60 ± 0.08	1	SPC	PFA	2.54 ± 0.13	16.9	②

93-95 Ω KX & RG coaxial cables

Max. op. temp.	Dielectric	References according to		Nexans ref.	Conductor			Dielectric Ø mm	Braids		Sheath		Av. weight kg/km	Application
		NF C 93-550	MIL C17		Compo-sition n x Ø mm	Nature	Ø mm		Nb	Nature	Nature	Overall Ø mm		
93 Ω														
85°C	PE		RG 62 AU	373148	1 x 0.64	CCS	0.64	3.71 ± 0.13	1	BC	PVC	6.15 ± 0.18	46	①
95 Ω														
200°C and +	PTFE		RG 180 BU (M17/95-RG 180)	087241	7 x 0.10	SPCCS	0.30	2.59 ± 0.08	1	SPC	FEP	3.58 ± 0.10	27	②
			RG 195 AU (M17/137-00001)	087246	7 x 0.10	SPCCS	0.30	2.59 ± 0.08	1	SPC	PFA	3.58 ± 0.10	27	②

BC : bare copper
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SPC : silver plated copper
CCS : copper clad steel
SPCCS : silver plated copper clad steel

① High frequency connections.

② High frequency connections operating at high temperature. By their small dimensions, they are mainly designed for miniaturized connections, operating at high or low temperature.

75 Ω KX & RG coaxial cables

Oper. temperature Min/Max	Fire properties	Max. op. frequency GHz	Nominal capaci-tance pF/m	Attenuation (db/100 m)				Dielectric strength kV	Powers at 40°C (kw)				Velocity of propa-gation	Conti-nuous working voltage
				200 MHz	400 MHz	3000 MHz	10000 MHz		200 MHz	400 MHz	3000 MHz	10000 MHz		
-40 +85	NF C 32070/C2 IEC 60332 – 1&2	1	72.2	16	23	73		7	0.17	0.12	0.042		65.9	1700
-40 +85	NF C 32070/C2 IEC 60332 – 1&2	3	67.0	16	23	73		4.2	0.17	0.12	0.042		65.9	1700
-40 +85	NF C 32070/C2 IEC 60332 – 1&2	1	72.2	9.5	13	45		10	0.42	0.3	0.095		65.9	3700
-40 +85	NF C 32070/C2 IEC 60332 – 1&2	3	72.2	9.5	13	45		10	0.42	0.3	0.095		65.9	3700
-40 +85	NF C 32070/C2 IEC 60332 – 1&2	3	67.0	9.5	13	45		8	0.42	0.3	0.095		65.9	3700
-90 +200	NF C 32070/C1&C2 IEC 60332 – 1	3	75.5	40	56	160		2	0.17	0.11	0.032		69.5	900
-90 +230	NF C 32070/C1&C2 IEC 60332 – 1	3	72.2	40	56	160		2	0.17	0.11	0.032		69.5	900

93-95 Ω KX & RG coaxial cables

Oper. temperature Min/Max	Fire properties	Max. op. frequency GHz	Nominal capaci-tance pF/m	Attenuation (db/100 m)				Dielectric strength kV	Powers at 40°C (kw)				Velocity of propa-gation	Conti-nuous working voltage
				200 MHz	400 MHz	3000 MHz	10000 MHz		200 MHz	400 MHz	3000 MHz	10000 MHz		
-40 +85	NF C 32070/C2 IEC 60332 – 1&2	1	47.6	14	22	100		3					83.0	750
-90 +200	NF C 32070/C1&C2 IEC 60332 – 1	3	50.5	30	43	120		2	0.35	0.25	0.08		69.5	900
-90 +230	NF C 32070/C1&C2 IEC 60332 – 1	3	50.5	30	43	120		2	0.35	0.25	0.08		69.5	900

Other standard cables

CABLES with 2 CONDUCTORS

Impedance	Max. op. temp.	Dielectric	References according to		Nexans ref.	Conductor			Dielectric Ø mm	Braids		Sheath		Av. weight kg/km
			NF C 93-550	MIL C17		Composition n x Ø mm	Nature	Ø mm		Nb	Nature	Nature	Overall Ø mm	
78 Ω	**85°C**	**PE**		**RG 108 AU**	087061	7 x 0.32	TPC	0.96	2.0	1	TPC	PVC	6.0 ± 0.25	52
95 Ω	**85°C**	**PE**		**RG 22 BU**	087043	7 x 0.38	TPC	1.14	2.3	2	TPC	PVC	10.7 ± 0.25	181

TPC : tin plated copper

Reference	Oper. temperature Min / Max	Fire properties	Max. op. frequency GHz	Nominal capacitance pF/m	Attenuation (db/100 m)				Dielectric strength kV	Velocity of propa-gation	Continuous working voltage
					1 MHz	10 MHz	200 MHz	400 MHz			
RG 108 AU	-40 +85	NF C 32070/C2 IEC 60332 – 1&2	1	64.8		10	60	95	2	65.9	750
RG 22 BU	-40 +85	NF C 32070/C1 IEC 60332 – 1		53.2		5	20	29	2		

Application: High frequency connections.
These twinaxial cables are mainly designed for digital data transmissions in electronic systems.