

Photo: HELUKABEL®

## Coaxial Cables

## Coaxial Cables

Coaxial cables are used in all areas of the high frequency transmission technology, for example in medicine, military or in communication sectors. Because of the wide spectrum of coaxial and video or TV cables, which HELUKABEL® has in stock, most requirements are covered. Naturally we also offer special constructions for you.

HELUKABEL® supply RG-coaxial cables or RG-multi coaxial cables according to the american military standard MIL-C-17.

The coaxial cables for satellite receivers and TV aerials as well as video cables are designed according to the respective specified standards.

M

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# RG-Coaxial Cables



Type RG.../U	6	8	11	58	59	62
Part no.	40001	40013	40002	40003	40004	40005

Cable structure	6	8	11	58	59	62
Inner conductor diameter mm	1 x 0,72	7 x 0,72	7 x 0,4	19 x 0,18	1 x 0,6	1 x 0,65
	Steel/copper, bare	Copper, bare	Tinned copper	Tinned copper	Steel/copper, bare	Steel/copper, bare
Insulation Ø mm	4,7 PE	6,4 PE	7,3 PE	2,95 PE	3,7 PE	3,7 PE, hollow
Outer conductor	2 braids	Braid	Braid	Braid	Braid	Braid
	Silvered copper	Copper, bare	Copper, bare	Tinned copper	Copper, bare	Copper, bare
	Copper, bare	-	-	-	-	-
Outer jacket	PVC	PVC	PVC	PVC	PVC	PVC
Min. bending radius approx. mm	40	50	50	25	30	30
Temperature range °C	-35 to +80	-35 to +80	-35 to +80	-35 to +80	-35 to +80	-35 to +80
Copper weight kg/km	67,0	62,0	58,0	21,0	26,0	26,0
Outer Ø approx. mm	8,4	9,5	10,3	4,95	6,2	6,15
Weight approx. kg / km	115	128	140	38	57	52

Electrical characteristics	6	8	11	58	59	62
<b>Impedance (Ohm)</b>	<b>75 ± 3</b>	<b>50 ± 2</b>	<b>75 ± 3</b>	<b>50 ± 2</b>	<b>75 ± 3</b>	<b>95 ± 5</b>
Frequency range						
f (max.) GHz	3	3	3	3	3	3
Propagation velocity v/c	0,66	0,66	0,66	0,66	0,66	0,83
Attenuation at 20 °C (dB/100m)						
100 MHz	8,8	8	7,5	17	11,5	10,5
200 MHz	13,5	10,8	11	24	16,5	15
500 MHz	21	17	18,5	39	27	24,5
800 MHz	27,5	25	24	51	35	32,5
1000 MHz	-	26,5	30	56	41	35
1350 MHz	-	30,6	-	-	-	-
1750 MHz	-	35	-	-	-	-
Capacitance pF/m	67	101	67	101	67	42,5
Rel. velocity of propagation %	67	66	67	67	67	83
Insulation resistance MOhm x km min.	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Loop resistance max. (Ohm/km)	110	11	23	53	171	155
Nominal peak voltage kVs	2,8	5,1	5,2	2,5	3,5	1,1
Dielectric strength 50 Hz kVeff	7	9,5	10	5	7	3

Dimensions and specifications may be changed without prior notice. (RM01)

## Note

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers.
- RG-Coaxial types are in accordance with US-Military specifications MIL-C-17.
- RG/U: R=Radio, G=Guide, U=Utility

## Application

Coaxial cables are used in high frequency transmission, especially for transmitters and receivers, computers, radio and TV transmissions. The varied mechanical, thermal and electronic properties of Coaxial cables mean that they can be used up into the GHz levels, as per cable type.

# RG-Coaxial Cables



Type RG.../U	71	174	178	179	180	187	213
Part no.	40006	40197	40007	40008	40009	40010	40012
<b>Cable structure</b>							
Inner conductor diameter mm	1 x 0,65 Steel/copper, bare	7 x 0,16 Steel/copper, bare	7 x 0,1 Steel/copper, silvered	7 x 0,1 Steel/copper, silvered	7 x 0,1 Steel/copper, silvered	7 x 0,1 Steel/copper, silvered	7 x 0,75 Copper, bare
Insulation Ø mm	3,7 PE, hollow	1,52 PE	0,86 PTFE	1,6 PTFE	2,6 PTFE	1,6 PTFE	7,24 PE
Outer conductor	2 braids Copper, bare Tinned copper	Braid Tinned copper	Braid Silvered copper	Braid Silvered copper	Braid Silvered copper	Braid Silvered copper	Braid Copper, bare
Outer jacket	PE	PVC	FEP	FEP	FEP	PFA	PVC
Min. bending radius approx. mm	30	15	10	15	25	15	50
Temperature range °C	-50 to +70	-35 to +80	-55 to +200	-55 to +200	-55 to +200	-55 to +260	-35 to +80
Copper weight kg/km	48,0	7,0	6,4	7,3	11,0	8,5	79,0
Outer Ø approx. mm	6,2	2,8	1,8	2,54	3,7	2,65	10,3
Weight approx. kg / km	62	11	8	16	28	17	159

<b>Electrical characteristics</b>							
Impedance (Ohm)	95 ± 3	50 ± 2	50 ± 2	75 ± 3	95 ± 5	75 ± 3	50 ± 2
Frequency range							
f (max.) GHz	3	1	3	3	3	3	3
Propagation velocity v/c	0,83	0,66	0,7	0,7	0,7	0,7	0,66
Attenuation at 20°C (dB/100m)							
100 MHz	10,5	30	43	28	20	28	7
200 MHz	15	45	62	41	33	41	10,2
500 MHz	24,5	73	102	69	-	69	17
800 MHz	32,5	95	134	92	-	92	23
Capacitance pF/m	42,5	101	93	63	50	64	101
Rel. velocity of propagation %	83	70	70	70	70	70	100
Insulation resistance MΩm x km min.	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Loop resistance max. (Ωm/km)	136	360	860	840	840	840	10
Nominal peak voltage kVs	1,5	1,1	1,1	1,3	1,6	1,3	5,2
Dielectric strength 50 Hz kVeff	3	2	2	2	2	2	10

Dimensions and specifications may be changed without prior notice. (RM01)

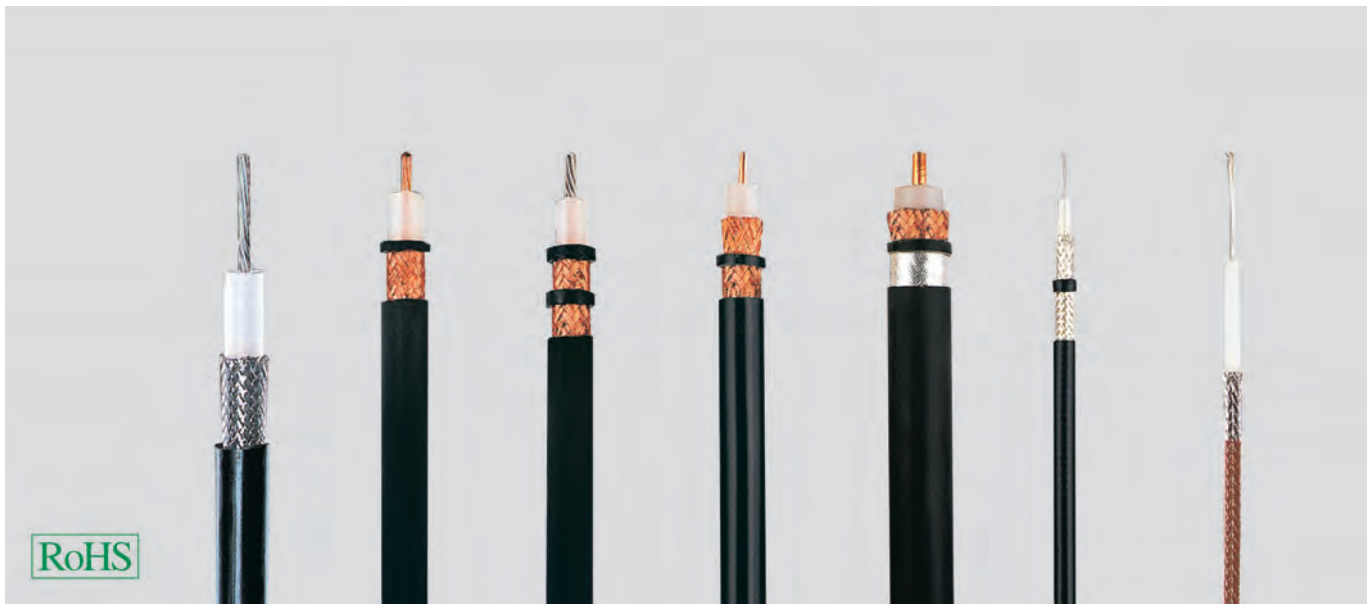
## Note

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers.
- The colour at FEP and PFA outer jacket is black or transparent as per production outlet.
- RG-Coaxial types are in accordance with US-Military specifications MIL-C-17.
- RG/U: R=Radio, G=Guide, U=Utility

## Application

Coaxial cables are used in high frequency transmission, especially for transmitters and receivers, computers, radio and TV transmissions. The varied mechanical, thermal and electronic properties of Coaxial cables mean that they can be used up into the GHz levels, as per cable type.

# RG-Coaxial Cables



Type RG.../U	214	215	216	217	218	223	316
Part no.	40011	40198	40199	40200	40201	40202	40203
<b>Cable structure</b>							
Inner conductor diameter mm	7 x 0,75	7 x 0,75	7 x 0,4	1 x 2,7	1 x 4,95	1 x 0,9	7 x 0,17
	Silvered copper	Copper, bare	Tinned copper	Copper, bare	Copper, bare	Silvered copper	Steel/copper, silvered
Insulation Ø mm	7,24 PE	7,24 PE	7,24 PE	9,4 PE	17,3 PE	2,95 PE	1,52 PTFE
Outer conductor	2 braids 2x silvered copper	Braid Copper, bare	2 braids Copper, bare	2 braids Copper, bare	Braid Copper, bare	2 braids 2x silvered copper	Braid Silvered copper
Outer jacket	PVC	PVC	PVC	PVC	PVC	PVC	PTFE/ alt. FEP
Min. bending radius approx. mm	50	70	50	70	110	25	15
Temperature range °C	-35 to +80	-35 to +80	-35 to +80	-35 to +80	-35 to +80	-35 to +80	-55 to +200
Copper weight kg/km	119,0	148,0	107,0	187,0	348,0	42,0	8,5
Outer Ø approx. mm	10,8	10,3	10,8	13,84	22,1	5,38	2,5
Weight approx. kg / km	198	300	176	300	710	60	15
<b>Electrical characteristics</b>							
<b>Impedance (Ohm)</b>	<b>50 ± 2</b>	<b>50 ± 2</b>	<b>75 ± 3</b>	<b>50 ± 2</b>	<b>50 ± 2</b>	<b>50 ± 2</b>	<b>50 ± 2</b>
Frequency range							
f (max.) GHz	11	3	3	3	3	3	3
Propagation velocity v/c	0,66	0,66	0,66	0,66	0,66	0,66	0,66
Attenuation at 20°C (dB/100m)							
100 MHz	7	7	7,5	4,8	2,9	17	28
200 MHz	10,2	10,2	11	7,1	4,5	23	40
500 MHz	17	17	18,5	12,3	8,1	38	68
800 MHz	23	23	24	16,8	11,2	50	90
Capacitance pF/m	101	101	67	101	101	101	95
Rel. velocity of propagation %	67	100	100	100	100	67	70
Insulation resistance							
MΩm x km min.	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Loop resistance max. (Ωm/km)	10	10	21	5	2	36	310
Nominal peak voltage kVs	5,2	5	5	7	11	1,9	1,2
Dielectric strength							
50 Hz kVeff	10	10	10	10	15	5	2

Dimensions and specifications may be changed without prior notice. (RM01)

## Note

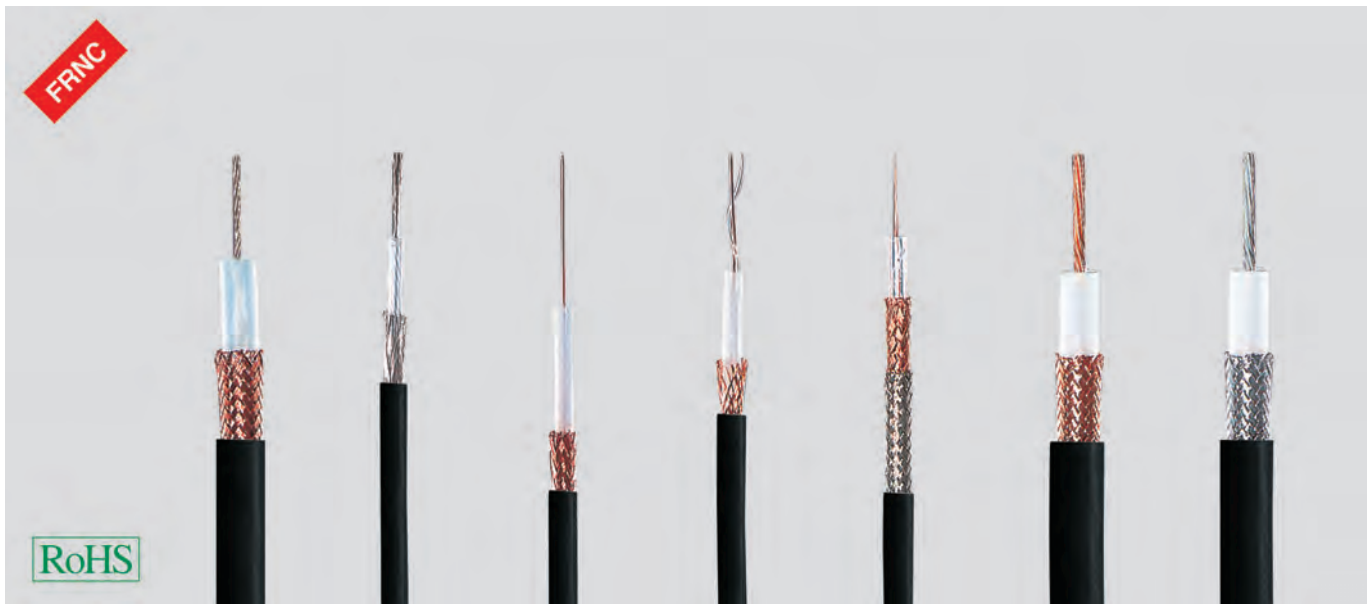
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers.
- The colour outer jacket at PTFE is black or transparent as per production outlet.
- RG-Coaxial types are in accordance with US-Military specifications MIL-C-17.
- RG/U: R=Radio, G=Guide, U=Utility

## Application

Coaxial cables are used in high frequency transmission, especially for transmitters and receivers, computers, radio and TV transmissions. The varied mechanical, thermal and electronic properties of Coaxial cables mean that they can be used up into the GHz levels, as per cable type.



# Halogen-Free RG-Coaxial Cables



Type RG.../U	11	58	59	62	71	213	214
Part no.	40190	40191	40192	40193	40194	40195	40196
<b>Cable structure</b>							
Inner conductor diameter mm	7 x 0,4	19 x 0,18	1 x 0,6	1 x 0,65	1 x 0,65	7 x 0,75	7 x 0,75
	Tinned copper	Tinned copper	Steel/copper, bare	Steel/copper, bare	Steel/copper, bare	Copper, bare	Silvered copper
Insulation Ø mm	7,3 PE	2,95 PE	3,7 PE	3,7 PE, hollow	3,7 PE, hollow	7,24 PE	7,24 PE
Outer conductor	Braid Copper, bare	Braid Tinned copper	Braid Copper, bare	Braid Copper, bare	2 braids Copper, bare Tinned copper	Braid Copper, bare	2 braids 2x silvered copper
Outer jacket	HM2	HM2	HM2	HM2	HM2	HM2	HM2
Min. bending radius approx. mm	50	25	30	30	30	50	50
Temperature range °C	-35 to +80	-35 to +80	-35 to +80	-35 to +80	-50 to +70	-35 to +80	-35 to +80
Copper weight kg/km	58,0	21,0	26,0	26,0	48,0	79,0	119,0
Outer Ø approx. mm	10,3	5,4	6,4	6,4	6,9	10,3	10,8
Weight approx. kg / km	144	38	57	54	64	155	203
<b>Electrical characteristics</b>							
<b>Impedance (Ohm)</b>	<b>75 ± 3</b>	<b>50 ± 2</b>	<b>75 ± 3</b>	<b>93 ± 5</b>	<b>93 ± 3</b>	<b>50 ± 2</b>	<b>50 ± 2</b>
Frequency range							
f (max.) GHz	3	3	3	3	3	3	11
Propagation velocity v/c	0,66	0,66	0,66	0,85	0,85	0,66	0,66
Attenuation at 20°C (dB/100m)							
3 MHz	1,3	2,9	2	2	2	1,2	1,2
10 MHz	2,4	5,3	3,8	3,7	3,7	2,3	2,3
100 MHz	7,8	17	12,2	12	12,5	7,5	7,5
200 MHz	11,3	24,4	17,6	17,3	17,3	10,9	10,9
500 MHz	18,7	39,2	27,2	24,7	24,7	17,2	17,2
800 MHz	23,4	47,8	35,2	34,6	34,6	22,6	22,6
Capacitance pF/m	68	0	68	42,5	42,5	101	101
Rel. velocity of propagation %	67	67	67	43	43	101	101
Insulation resistance MΩm x km min.	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>	10 <sup>5</sup>
Loop resistance max. (Ωm/km)	23	53	171	155	136	10	10
Nominal peak voltage kVs	5	1,9	2,3	0,75	0,75	5	5
Dielectric strength 50 Hz kV eff.	10	5	7	3	3	10	10

Dimensions and specifications may be changed without prior notice. (RM01)

## Note

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers.
- H-outer jacket = halogen-free material (HM2)
- RG-Coaxial types are in accordance with US-Military specifications MIL-C-17.
- RG/U: R=Radio, G=Guide, U=Utility
- FRNC = Flame Retardant Non-Corrosive

## Application

Coaxial cables are used in high frequency transmission, especially for transmitters and receivers, computers, radio and TV transmissions where no flame propagation under behaviour in fire is permitted. The varied mechanical, thermal and electronic properties of Coaxial cables mean that they can be used up into the GHz levels, as per cable type.

## CATV-Cables with alu- or copper foil and braiding



used as Type	0.7/4.4 ALG	Underground 1.1/7.3 ALG	Outdoor span 1.1/7.3 ALG-T	Underground 1.8/11.5 FG	Underground A-2YK2Y1 iKx 1.1/7.3	Underground A-2YOK2Y1 nKx 2.2/8.8	Underground A-2YOK2Y1 qKx 3.3/13.5	Underground A-2YOK2Y1 sKx 4.9/19.4
Part no.	40135	40139	40140	40141	40142	40143	40144	40179
<b>Cable structure</b>								
Inner conductor diameter mm	0,7	1,1	1,1	1,8	1,1	2,2	3,3	4,9
Insulation Ø mm	4,4 PE	7,3 PE	7,3 PE	11,5 PE	7,3 PE	8,8 PE, hollow	13,5 PE, hollow	19,4 PE, hollow
Outer conductor	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides	Copper tape	Copper tube, welded	Copper tube, welded	Copper tube, welded	Copper tube, welded
Braid	-	-	-	Braid	-	-	-	-
Outer jacket	PVC	PE	PE	PE	PE	PE	PE	PE
Jacket colour	white	black	black	black	black	black	black	black
Outer Ø approx. mm	6,6	10,5	2,8	15,0	11,0	12,5	17,0	24,4
Min. bending radius approx. mm	35	100	150	150	160	200	300	400
Strain/suspending wire N	-	-	5500	-	-	-	-	-
Weight approx. kg / km	44	98	177	218	142	183	347	500
<b>Electrical characteristics</b>								
<b>Impedance (Ohm)</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 2</b>	<b>75 ± 2</b>	<b>75 ± 1</b>	<b>75 ± 1</b>
Capacitance pF/m	67	67	67	67	65	51	51	50
Propagation velocity v/c	0,66	0,66	0,66	0,66	0,66	0,88	0,88	0,89
Attenuation at 20°C (dB/100m)								
100 MHz	9	5,2	5,2	3,5	5,4	2,8	1,9	1,3
200 MHz	12	7,3	7,3	5,2	7,9	4	2,7	1,9
500 MHz	21,2	12,6	12,6	9	12,9	6,6	4,4	3,1
800 MHz	27,5	16,8	16,8	12	17,3	8,4	5,7	4,1
950 MHz	30,5	18,8	18,8	13	18,9	9,3	6,3	4,4
1350 MHz	37	23	23	-	-	-	-	-
1750 MHz	43	27,7	27,7	-	-	-	-	-
2050 MHz	47,5	30,2	30,2	-	-	-	-	-
Structural return loss min. (dB) between								
30 and 300 MHz	30	32	32	30	26	26	28	28
300 and 600 MHz	30	32	32	30	23	23	25	25
600 and 960 MHz	25	30	30	28	21	21	23	23
960 and 1750 MHz	23	27	27	25	-	-	-	-
<b>DC resistance at 20°C</b>								
Inner conductor max. Ohm/km	47	18,5	18,5	7,3	22	5,6	2,5	1
Outer conductor max. Ohm/km	23	11	11	6,5	3,1	3	2	1
<b>Screening efficiency (dB)</b>								
50 and 100 MHz ≥	75	80	80	80	110	110	110	110
100 and 500 MHz ≥	75	85	85	85	110	110	110	110
500 and 1000 MHz ≥	75	85	85	85	110	110	110	110
1000 and 2050 MHz ≥	75	78	78	80	110	110	110	110
<b>Post office approved</b>	G670009A	G670011A	G622015B	G622010B	-	-	-	-

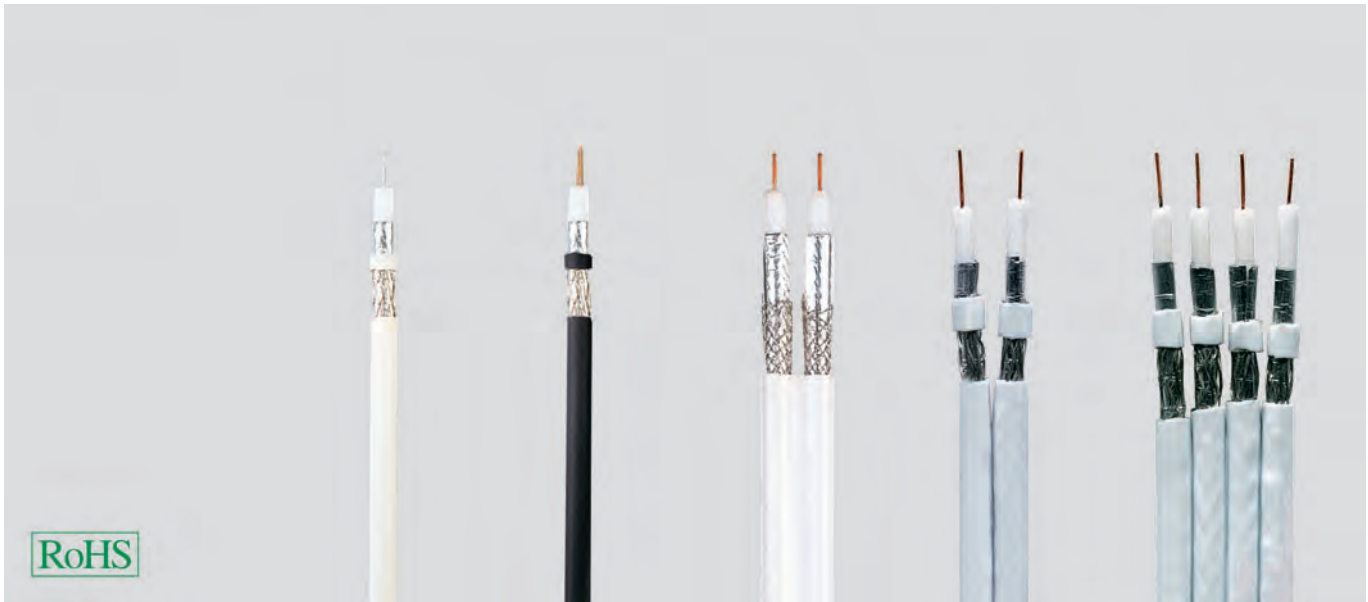
Dimensions and specifications may be changed without prior notice. (RM01)

### Note

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers.
- AL**=Aluminium, **ALPR**=Polyesterfoil coated with Aluminium on both sides
- BK-cable**=bandwidth communication cable, **Cu**=Copper, **CuR**=Cu-tube welded, **CuW**=Copperweld, **F**=Foil, **G**=Braid, **PE**=Polyethylene, **PEH**=Polyethylene air-space insulation, **PVC**=Polyvinylchloride



## SAT-Coaxial Cables up to 2150 MHz, for satellite-receivers, double screened



Type	1.1/5.0 ALG	1.65/7.2 ALG	SAT-MINI 1	DUO 2x0.7/2.9	QUADRO 4x0.7/2.9
Part no.	40150	40151	40159	40168	40169
<b>Cable structure</b>					
Inner conductor diameter mm	1,1 Tinned copper	1,6 Copper, bare	0,8 Copper, bare	0,65 Copper, bare	0,65 Copper, bare
Insulation Ø mm	5 Cell PE	7,2 Cell PE	3,5 Cell PE	3 Cell PE	3 Cell PE
Core colours	-	-	-	-	-
Outer conductor	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides
	Braid	Braid	Braid	Braid	Braid
Outer jacket	PVC	PE	PVC	PVC	PVC
Jacket colour	white	black	white	white	white
Outer Ø approx. mm	6,8	10,1	5,4 x 10,8	8,6 x 4,3	20,0 x 4,3
Min. bending radius approx. mm	40	60	40	35	80
Weight approx. kg / km	49	81	62	40	82
<b>Electrical characteristics</b>					
<b>Impedance (Ohm)</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 3</b>
Capacitance pF/m	55	55	55	55	55
Propagation velocity v/c	0,82	0,82	0,82	0,8	0,8
Attenuation at 20°C (dB/100m)					
100 MHz	5	3,7	8	8,9	8,9
200 MHz	7,3	5,1	11,5	13,5	13,5
500 MHz	13	9	18,5	22	22
800 MHz	17,2	11,8	23,5	28	28
950 MHz	19,5	13,6	25,5	31,5	31,5
1350 MHz	23,5	16,8	31	37	37
1750 MHz	27,6	19,7	35,5	42,3	42,3
2050 MHz	30	22	39,5	45,9	45,9
2150 MHz	31	22,5	43	50,4	50,4
Structural return loss min. (dB) between					
30 and 300 MHz	28	31	27	20	20
300 and 600 MHz	28	30	25	17	18
600 and 960 MHz	26	30	20	17	15
960 and 2050 MHz	24	28	20	-	-
<b>DC resistance at 20°C</b>					
Inner conductor max. Ohm/km	18	9	36	110	52
Outer conductor max. Ohm/km	20	12	28	22	26
Max. nominal voltage (V)	-	-	-	-	-
<b>Screening efficiency (dB)</b>					
50 and 100 MHz ≥	75	80	78	75	75
100 and 500 MHz ≥	75	85	78	75	75
500 and 1000 MHz ≥	75	85	75	75	75
1000 and 2050 MHz ≥	75	78	75	75	75
<b>Post office approved</b>					
Copper weight kg/km	G670010A 10,0	G622016B 35,0	- 30,0	- 16,0	- 32,0

Dimensions and specifications may be changed without prior notice. (RM01)

### Note

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers.
- AL**=Aluminium, **ALPR**=Polyesterfoil coated with Aluminium on both sides  
**Cu**=Copper, **CuW**=Copperweld, **F**=Foil, **G**=Braid, **PE**=Polyethylene, **PEH**=Polyethylene air-space insulation, **PVC**=Polyvinylchloride, **vz**=tinned

# Multimedia-Coaxial Cables SAT 1,0/4,6GH, up to 2400MHz, for digital-tv, double screened, screening efficiency >90dB



used as Type Part no.	inner/outer 1.0/4.6 GH-Y 40176	Underground 1.0/4.6 GH-2Y 40177	Safety zones 1.0/4.6 GH-FRNC 40178
<b>Cable structure</b>			
Inner conductor diameter mm	1 Copper with skin	1 Copper with skin	1 Copper with skin
Insulation Ø mm	4,6 Cell polyethylene with skin and PIB coating	4,6 Cell polyethylene with skin and PIB coating	4,6 Cell polyethylene with skin and PIB coating
Outer conductor	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides	Polyester foil coated with aluminium on both sides
Outer jacket	PVC	PE	FRNC
Jacket colour	white	black	grey
Outer Ø approx. mm	6,6	6,6	6,6
Approv. bending radius approx. mm	45	45	45
Weight approx. kg / km	40	40	40
<b>Electrical characteristics</b>			
<b>Impedance (Ohm)</b>	<b>75 ± 1</b>	<b>75 ± 1</b>	<b>75 ± 1</b>
Capacitance pF/m	55	55	55
Propagation velocity v/c	0,8	0,85	0,85
Attenuation at 20°C (dB/100m)			
100 MHz	5,8	5,8	5,8
200 MHz	7,8	7,8	7,8
450 MHz	12,5	12,5	12,5
600 MHz	14,7	14,7	14,7
800 MHz	17,2	17,2	17,2
1000 MHz	19,1	19,1	19,1
1750 MHz	26,2	26,2	26,2
2050 MHz	28,5	28,5	28,5
2400 MHz	31,3	31,3	31,3
Structural return loss min. (dB) between			
30 and 300 MHz	30	30	30
300 and 600 MHz	32	32	32
600 and 960 MHz	31	31	31
960 and 1750 MHz	26	26	26
1750 and 2400 MHz	30	30	30
<b>DC resistance at 20°C</b>			
Inner conductor max. Ohm/km	18	18	18
Outer conductor max. Ohm/km	20	20	20
Max. nominal voltage (V)	-	-	-
Screening efficiency (dB) ≥	90	90	90
Copper weight kg/km	22,0	22,0	22,0

Dimensions and specifications may be changed without prior notice. (RM01)

## Application

- **Copper inner-conductor 1,02 with skin-effect**

Protection against humidity and corrosion / Solid compound of dielectric. No change of position during installation in narrow bending radius.

- **Dielectric 4,6 mm Ø : - special PE-compound, foaming by GAS-INJEKTION**

Important improvement of propagation velocity values / Very high transmission speed of individual signals (presumption for Multimedia) / Improvement for the resistance to ageing / Reduction of attenuation-loss

- **The over surface of dielectric consists too a skin-coating (smooth over surface)**

Protection against humidity and other chemical influences / Minimum impedance tolerance ±2 Ohm / This coaxial cable is crimpable / Installation in narrow bending radius, no kinking risk / The transmission-loss of signals are hardly measurable to the advance in years / Additionally to the skin-effect, the dielectric contains a gel-coating (special PIB-cmpound) / We therefore offer a **15 years guarantee for attenuation-loss** by installation at 20 °C room-temperature

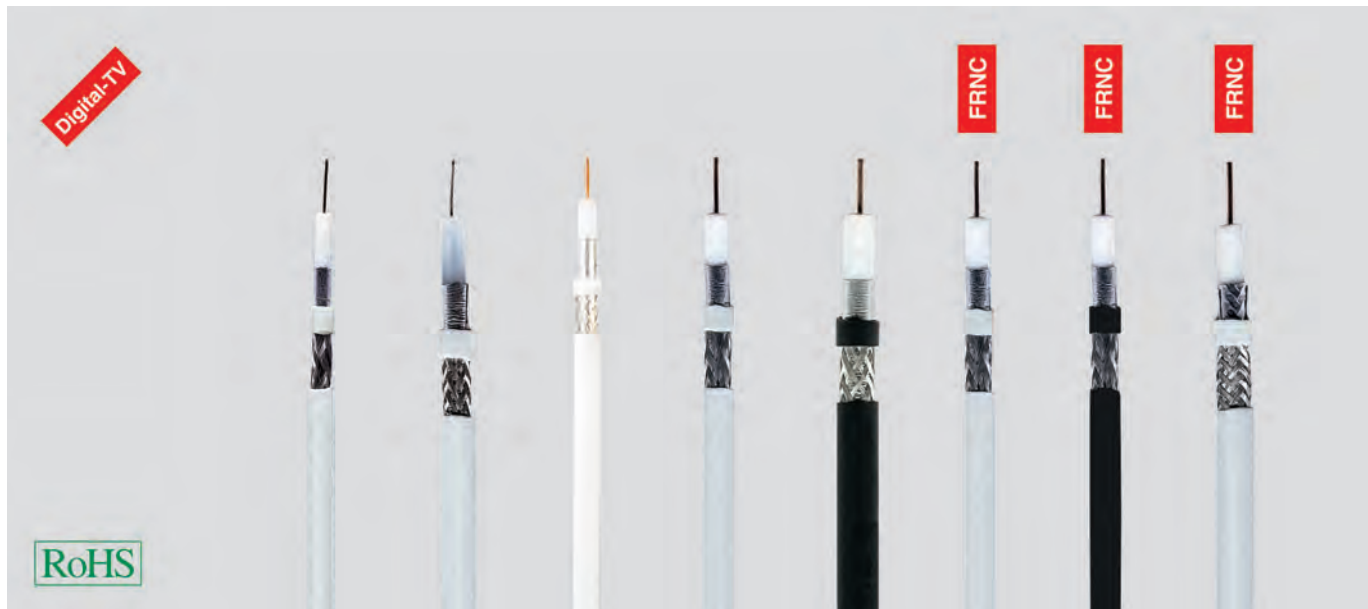
- **Screening**

a) AL/PR-foil, polyesterfoil coated with aluminium on both sides or b) Copper braiding of tinned wires, **screening efficiency >90 dB**

- **Outer sheath**

Alternatives - PVC white for indoor and outdoor installation / - PE black for underground laying or - FRNC grey as a safety coaxial cable in hospitals, airports and for medical equipment etc. (other sheath colours on request)

## SAT-Coaxial Cables for digital-tv, screening efficiency >90dB / >95dB, for satellite-receivers, double screened



used as Type	inner 0,7/2,9	inner/outer 0,7/4,5	inner/outer 0,8/3,5	inner 1,1/5,0	Underground 1.6/7,0	inner 1,1/5,0 FRNC	inner/outer 1,1/5,0 FRNC	inner 1.6/7,0 FRNC
Part no.	40015	40016	40085	40017	40018	40019	40021	40020
<b>Cable structure</b>								
Inner conductor diameter mm	0,65	0,75	0,8	1,13	1,63	1,13	1,13	1,63
Insulation Ø mm	3	4,5	3,5	4,8	7,1	4,8	4,8	7,1
Outer conductor	ALPR-FG	ALPR-FG	ALPR-FG	ALPR-FG	ALPR-FG	ALPR-FG	ALPR-FG	ALPR-FG
1st Screen - ALPR	foil	foil	foil	foil	foil	foil	foil	foil
2nd Screen - Cu-Braid	Braid	Braid	Braid	Braid	Braid	Braid	Braid	Braid
Outer jacket	PVC	PVC	PVC	PVC	PE	FRNC	FRNC	FRNC
Jacket colour	white	white	white	white	black	white	black	white
Outer Ø approx. mm	4,3	6,6	5,0	6,9	10,3	6,8	6,8	10,0
Min. bending radius approx. mm	43	35	50	45	60	48	48	60
Weight approx. kg / km	20	40	32	47	110	47	47	110
<b>Electrical characteristics</b>								
<b>Impedance (Ohm)</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 3</b>	<b>75 ± 2</b>	<b>75 ± 2</b>	<b>75 ± 2</b>	<b>75 ± 2</b>	<b>75 ± 2</b>
Capacitance pF/m	55	67	53	55	55	53	55	53
Propagation velocity v/c	0,8	0,66	0,8	0,8	0,85	0,85	0,8	0,85
Attenuation at 20°C (dB/100m)								
100 MHz	8,1	7,1	6,3	4,9	3	4,7	4,9	3,8
200 MHz	13,3	10,4	11,5	7,7	6,1	7	7,2	5,5
450 MHz	20,9	16,8	17,1	11,6	9	11,5	11,6	8,6
800 MHz	-	25	-	-	-	17	-	12,1
1000 MHz	31,5	27,4	26,5	18,9	14,3	18,1	18,9	13,2
1750 MHz	42,2	37,4	36,4	26,6	20,1	25	26,6	17,5
2050 MHz	45,8	40,5	39,7	28,2	22,5	27,3	28,2	19
2250 MHz	49,9	44,3	43,1	29,5	24	28	29,5	19,9
2400 MHz	55,5	45	-	31,9	-	29,3	31,9	22,5
Structural return loss min. (dB) between								
30 and 300 MHz	20	20	35	25	40	25	40	25
300 and 600 MHz	18	18	35	18	35	18	40	18
600 and 960 MHz	16	18	30	17	35	17	35	17
960 and 1750 MHz	-	-	30	15	30	15	30	15
<b>DC resistance at 20°C</b>								
Inner conductor max. Ohm/km	52	110	36	18	9	18	18	9
Outer conductor max. Ohm/km	29	22	28	14	21	14	14	21
Max. nominal voltage (V)	-	-	-	-	-	-	-	-
<b>Screening efficiency (dB)</b>								
50 and 100 MHz ≥	95	90	90	95	90	90	95	90
100 and 500 MHz ≥	95	90	90	95	90	90	95	90
500 and 1000 MHz ≥	95	90	90	95	90	90	95	90
1000 and 2050 MHz ≥	95	90	90	95	90	90	95	90
Copper weight kg/km	8,0	9,0	9,0	15,0	32,0	15,0	15,0	15,0

Dimensions and specifications may be changed without prior notice. (RM01)

## RGB-COAX-CY / RGB-COAX-(St)Y transmission cables for colour monitor



### Technical data

- **Base cable 0,37/1,5 bzw. 0,6/3,7**
- **Temperature range**  
fixed installation -10 °C to +80 °C  
flexing -5 °C to +50 °C
- **Mutual capacitance** 67 nF/km
- **Impedance** 75 Ohm
- **Attenuation**  

RGB-Coax 0,37/1,5
1 MHz = 2,0 dB/100m
2 MHz = 2,8 dB/100m
5 MHz = 4,0 dB/100m
10 MHz = 5,8 dB/100m
20 MHz = 8,4 dB/100m
50 MHz = 13,9 dB/100m
100 MHz = 19,8 dB/100m
200 MHz = 28,5 dB/100m
RGB-Coax 0,6/3,7
1 MHz = 1,1 dB/100m
2 MHz = 1,5 dB/100m
5 MHz = 2,5 dB/100m
10 MHz = 3,5 dB/100m
20 MHz = 4,5 dB/100m
50 MHz = 7,2 dB/100m
100 MHz = 10,4 dB/100m
200 MHz = 15,1 dB/100m
- **Minimum bending radius**  
15x cable ø

### Cable structure

- RGB-COAX-CY ... x0,37/1,5**
- Inner conductor bare copper, solid, conductor ø 0,37 mm
  - Dielectric (insulation) of cell-Polyethylene
  - Outer conductor of tinned copper wire braiding
  - PVC-jacket in colour  
red, green, blue for 3xRGB COAX  
red, green, blue, white, black for 5xRGB COAX
  - 3 or 5 Coax twisted with optimal lay-length
  - Foil taping
  - Overall braid-screening, tinned copper with optimal surface coverage and drain-wire
  - PVC-outer jacket, black
- RGB-COAX-CY 3x0,37/1,5 + 3x0,25**
- Cable structure as per above, but with additional control cores (3x0,25) in the interstices
  - Colour brown, green, white
- RGB-COAX-(St)Y ... x0,6/3,7 (deviation)**
- Inner conductor, bare copper, solid, conductor ø 0,6 mm
  - Outer conductor of tinned or bare copper wire braiding
  - Foil taping
  - Plastic coated aluminium foil and drain wire
  - PVC-outer jacket, green or black

### Properties

- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers.

### Application

RGB cables are suitable for the transmission of both analogue and digital video signals. They are used particularly as connecting cables for data systems, engineering applications (CAD, high-definition graphics) and in television studios. The three main signals (red, green, blue) are transmitted separately. Depending on the application, it is possible to supply the base cable with further coaxial cables or with symmetrical signal cores for the intensity and horizontal or vertical synchronisation.

#### RGB-COAX-CY ... 0,37/1,5

Part no.	No. RGB-Coax n x mm	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
40145	3 x 0,37/1,5	7,2	23,0	59,0
40147	3 x 0,37/1,5 + 3 x 0,25	8,2	39,0	89,0
40146	5 x 0,37/1,5	9,0	36,0	89,0

#### RGB-COAX-(St)Y ... 0,6/3,7

Part no.	No. RGB-Coax n x mm	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km
40148	3 x 0,6/3,7	16,0	66,0	278,0
40149	5 x 0,6/3,7	19,0	102,0	397,0

Dimensions and specifications may be changed without prior notice. (RM01)