



COMMUNICATION CABLES

RF • DATA • VIDEO • SIGNAL TRASMISSION



TELECOM &
MOBILE NETWORK



OIL & GAS
OFFSHORE



DEFENSE &
SECURITY



INFRASTRUCTURE
& SMART CITY



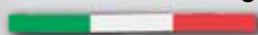
LAN & DATA
NETWORK



INDUSTRIAL
APPLICATION



Made in Italy



since 1968



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Company presentation

COMPANY PROFILE

ITALIANA CONDUTTORI Srl, manufacturer of CAVEL cables, has been operating since 1968. In over fifty years of activity, the company has grown steadily, building a solid reputation on both the Italian and international markets. Today, its production plant and offices are located in Gropello Cairoli (PV), just a few minutes from Milan along the A7 motorway towards Genoa, and cover a total area of 15,000 m².

CAVEL IS A PRODUCT ENTIRELY MANUFACTURED IN ITALY

To meet the evolving demands of the industry, CAVEL cables have continuously advanced through technological innovation. The result is a range featuring increasingly effective shielding, reduced dimensions, greater mechanical strength and a longer service life. Support for end users has also been enhanced, thanks to continuously updated connectors and dedicated accessories, such as CABLEBOX cable dispensers.

A COMPANY COMMITTED TO ENVIRONMENTAL PROTECTION AND SAFETY

ITALIANA CONDUTTORI Srl operates in full compliance with the European RoHS Directive, which prohibits the use of harmful chemicals, including lead, once used as a thermal stabiliser in PVC sheaths. These materials were eliminated from our raw materials as early as 2005.

For more information on RoHS and REACH regulations, please refer to the dedicated sections on our website.

Since July 2017, with the entry into force of the Construction Products Regulation (CPR: EU 305/2011), which establishes the classification of cables according to their reaction to fire, our products are supplied with CE marking, indication of the class to which they belong and related documentation (DoP), available online.

CAVEL WARRANTY

Thanks to the experience gained over decades of activity, the continuous improvement of raw materials and the introduction of advanced technologies for production and process control, we are able to offer a 15-year warranty on our coaxial cables and a 25-year warranty on LAN cables. The warranty certificate and terms and conditions are available for download from our website.

COMPANY CERTIFICATIONS

Italiana Conduuttori S.r.l. operates with a Quality Management System certified by IMQ, in compliance with the UNI EN ISO 9001:2015 Standard; IMQ certificate no. 9125.ICON.

In addition to this, the company is part of an internationally recognised certification network through IQNet.



KNX cables | CPR Cca

KONNEX SERIES

Applications

Building automation and home automation.

KNX is an international communication standard for building automation and home automation. This technology allows for the integrated and efficient control and management of building systems, such as lighting, heating, air conditioning, blinds and shutters, security systems and more.

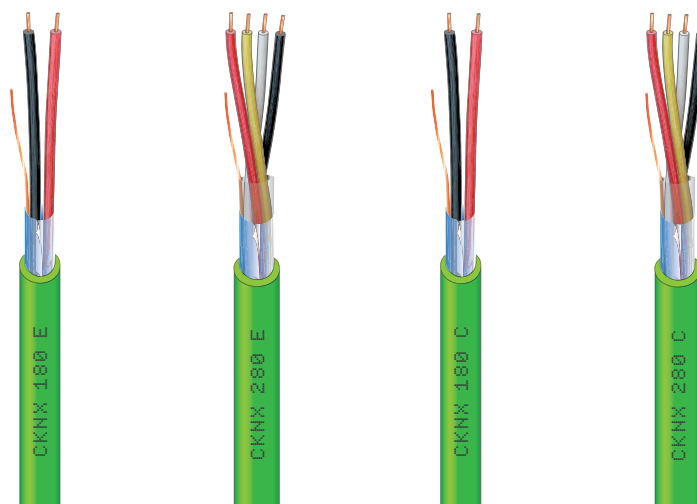
By using the KNX protocol, it is possible to create an intelligent and flexible system that allows for the centralised monitoring and management of automation functions. One of its main advantages is interoperability, which allows products from different manufacturers to communicate with each other without issues, ensuring flexibility and scalability in automation systems.

In summary, KNX allows for the efficient and centralised integration and control of devices and systems in a building, offering more comfort, safety and energy efficiency.

A KNX-certified cable is a cable designed and tested for use in automation systems based on the KNX standard, ensuring reliable transmission of control signals and data within a KNX installation.

These cables must meet specific technical and quality requirements to ensure optimal performance in a KNX system. The use of certified cables is essential for the correct operation and optimal performance of a KNX automation system: the choice of cables and correct installation are essential for the stability and reliability of the installation.

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KNX SERIES



CPR Euroclass		Eca	Eca	Cca	Cca
CAVEL CODE		CKNX180E	CKNX280E	CKNX180C	CKNX280C
Configuration		1x2 AWG20	2x2 AWG20	1x2 AWG20	2x2 AWG20
Standards		CEI-UNEL36762 C-4 (U0=400V), EN50288-2-1			
CONSTRUCTION FEATURES					
Inner conductor	Ø mm	0.80	0.80	0.80	0.80
	material	Cu	Cu	Cu	Cu
Insulation	Ø mm	1.60	1.60	1.60	1.60
	material	PE	PE	PE	PE
Drain wire	material	CuSn	CuSn	CuSn	CuSn
Tape 1	material	-	Pet	-	Pet
Tape 2	material	Al/Pet	Al/Pet	Al/Pet	Al/Pet
Outer diameter	Ø mm	4.8	5.6	5.8	6.6
Sheath	Ø mm	PVC	PVC	LSZH+FR	LSZH+FR
PHYSICAL CHARACTERISTICS					
Copper weight	kg/km	10.1	19.2	10.1	19.2
Cable weight	kg/km	27.5	42.8	44.2	62.1
Minimum bending radius 1/n	mm	50	60	60	70
ELECTRICAL CHARACTERISTICS					
Single wire resistance	Ohm	35	35	35	35
Mutual capacitance	pF/m	75	70	75	70
Insulation resistance	MOhm/km	100	100	100	100
STANDARD PACKAGING					
Method	type	Shrink pack	Plastic reel	Shrink pack	Plastic reel
Unit size	m	150	100	150	100
Unit packaging	m	150	100	150	100

Coaxial cables | SA Class B | CPR Dca, Eca, Fca

SAT SERIES (Satellite)

Applications

Reception and Distribution of Satellite and Digital Terrestrial signals.

SAT cables are coaxial cables offering the best balance between cost-effectiveness and electrical performance for the reception of Satellite and Digital Terrestrial signals, manufactured by Italiana Conduttori, 100% Made In Italy.

They provide maximum versatility across a wide range of applications, from satellite reception, to 8K-UHD, CATV and TV On Demand, and are suitable for interconnections, drop cables, signal transmission and distribution, including self-supporting versions.

They are available with the following sheaths:

- **PVC** (Polyvinyl chloride, for indoor installation), with operating temperatures from -20 to +70°C;
- **LSZH** (Low Smoke, Zero Halogen, for indoor and outdoor installation) with operating temperatures from -20 to +80°C;
- **PE** (Polyethylene, for outdoor and direct burial installation) with operating temperatures from -40 to +80°C.

All models comply with the CEI-UNEL 36762 Standard for coexistence with power cables up to 400 V.

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SAT SERIES

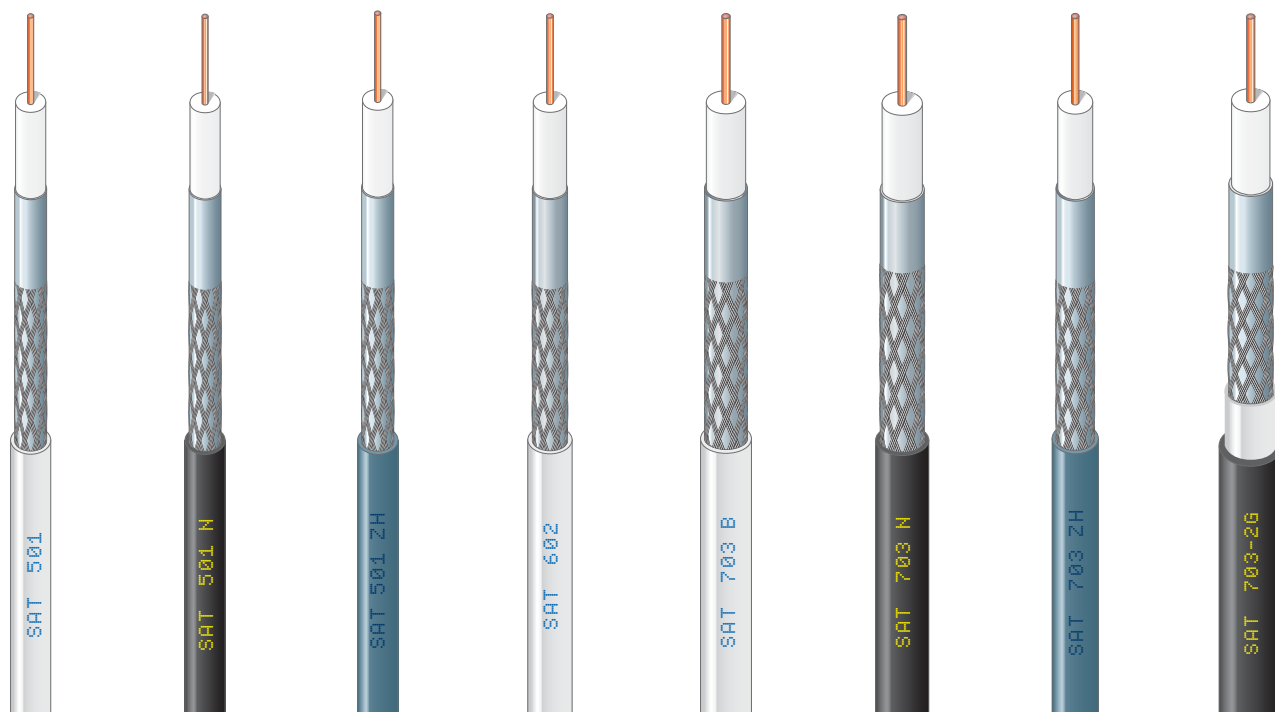


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
SAT 501	150 / 150	900 / 750	SP / BP	S150M	DS100
SAT501N	150 / 150	900 / 750	SP / BP	S150M	DS100
SAT501ZH	150 / 150	900 / 750	SP / BP	S150M	DS100
SAT602	100 / 250	600 / 500	SP / SP	S100M / S250L	DS100 / DS250
SAT703B	100 / 250	600 / 500	SP / SP	S100M / S250L	DS100 / DS250
SAT703N	100 / 250	600 / 500	SP / SP	S100M / S250L	DS100 / DS250
SAT703ZH	100 / 250	600 / 500	SP / SP	S100M / S250L	DS100 / DS250
SAT703-2G	200	400	BP	R200L	DS250

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011	
CAVEL CODE		
Compliance with the Standard		
RG reference		
CONSTRUCTION FEATURES		
Inner conductor	Ø mm	
	material	
Dielectric	Ø mm	
	material	
Shielding		
1. tape	material	
2. braid	material	
braid optical coverage	%	
Outer diameter	Ø mm	
Outer sheath / Secondary sheath	material	
PHYSICAL CHARACTERISTICS		
Copper weight	kg/km	
Cable weight	kg/km	
Min. bending radius 1/n	mm	
Max. tensile strength	N	
ELECTRICAL CHARACTERISTICS		
Impedance	Ohm	
Velocity of propagation	%	
Attenuation (@20°C)		
@ 5 MHz	dB/100m	
@ 50 MHz	dB/100m	
@ 200 MHz	dB/100m	
@ 300 MHz	dB/100m	
@ 470 MHz	dB/100m	
@ 690 MHz	dB/100m	
@ 1000 MHz	dB/100m	
@ 2150 MHz	dB/100m	
@ 3000 MHz	dB/100m	
Structural return loss (SRL)		
@ 5 - 470 MHz	dB	
@ 470 - 1000 MHz	dB	
@ 1000 - 2000 MHz	dB	
@ 2000 - 3000 MHz	dB	
Shielding efficiency (SA)	Class	
@ 30 - 1000 MHz	dB	
@ 1000 - 2000 MHz	dB	
@ 2000 - 3000 MHz	dB	
Transfer impedance (Zt)		
@ 5 - 30 MHz	mΩ/m	
DC resistance of inner/outer conductor	Ohm/km	



	Eca	Eca	-	Eca	Eca	Eca	Dca,s2,d2,a1	Fca
	SAT501	SAT501N	SAT501ZH	SAT602	SAT703B	SAT703N	SAT703ZH	SAT703-2G
	EN50117 9-2	EN50117 9-2	EN50117 9-2 / 10-2	EN50117 9-2	EN50117 9-2	EN50117 9-2	EN50117 9-2 / 10-2	EN50117 10-2
	RG59EU	RG59EU	RG59EU		RG6EU	RG6EU	RG6EU	RG6+
	0.80	0.80	0.80	1.00	1.13	1.13	1.13	1.13
	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
	3.50	3.50	3.50	4.30	4.80	4.80	4.80	4.80
	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al
	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
	47	47	47	40	45	45	45	45
	5.00	5.00	5.00	6.00	6.60	6.60	6.60	7.60
	PVC / -	PVC / -	LSZH / -	PVC / -	PVC / -	PVC / -	LSZH / -	PVC / PE
	8.9	8.9	8.9	11.4	14.4	14.4	14.4	14.4
	23.9	23.9	24.9	32.4	39.5	39.5	40.7	41.6
	25/50	25/50	25/50	30/60	35/70	35/70	35/70	40/80
	90	90	90	120	150	150	150	150
	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
	85	85	85	85	85	85	85	85
	2.1	2.1	2.1	1.8	1.6	1.6	1.6	1.6
	5.6	5.6	5.6	4.6	4.1	4.1	4.1	4.1
	10.9	10.9	10.9	8.9	8.0	8.0	8.0	8.0
	13.7	13.7	13.7	11.0	9.8	9.8	9.8	9.8
	17.4	17.4	17.4	13.9	12.4	12.4	12.4	12.4
	20.8	20.8	20.8	17.0	15.1	15.1	15.1	15.1
	25.6	25.6	25.6	20.6	18.5	18.5	18.5	18.5
	38.5	38.5	38.5	31.0	27.9	27.9	27.9	27.9
	46.0	46.0	46.0	37.1	33.4	33.4	33.4	33.4
	> 30	> 30	> 30	> 30	> 30	> 30	> 30	> 30
	> 27	> 27	> 27	> 28	> 28	> 28	> 28	> 28
	> 22	> 22	> 22	> 25	> 25	> 25	> 25	> 25
	> 20	> 20	> 20	> 22	> 22	> 22	> 22	> 22
	B	B	B	B	B	B	B	B
	> 80	> 80	> 80	> 75	> 80	> 80	> 80	> 80
	> 80	> 80	> 80	> 90	> 90	> 90	> 90	> 90
	> 75	> 75	> 75	> 75	> 80	> 80	> 80	> 80
	< 23	< 23	< 23	< 29	< 23	< 23	< 23	< 23
	35.0 / 26.0	35.0 / 26.0	35.0 / 26.0	22.5 / 26.0	18.0 / 22.0	18.0 / 22.0	18.0 / 22.0	18.0 / 22.0

Coaxial cables | SA Class A | CPR Cca, Dca, Eca, Fca

DG70, DG80, DG125, 17VAtC, 17PatC SERIES

Applications

Reception and distribution of satellite and digital terrestrial signals; 4G / 5G protection.

DG, 17VAtC, 17PatC cables are coaxial cables developed for narrowband (8 MHz) digital multichannel reception for DVB-T and T2, up to Screening Attenuation class A+, combining this feature with the simple construction of double shielding (tape-braid).

They offer high versatility of applications, from satellite reception to 8K-UHD, suitable for interconnections, drops cables, transmission and distribution, and DG113 is also available in a self-supporting version.

They are available with the following sheaths:

- **PVC** (polyvinyl chloride, for indoor installation), with operating temperatures from -20 to +70°C;
- **LSZH** (Low Smoke, Zero Halogen, for indoor and outdoor installation) with operating temperatures from -20 to +80°C;
- **PE** (Polyethylene, for outdoor and direct burial installation) with operating temperatures from -40 to +80°C.

from PVC and PE to LSZH-FR (Low Smoke, Zero Halogen, Flame Retardant) for indoor, outdoor and direct burial installation, with operating temperatures from -40 to +80°C, up to fire reaction class Cca; 100% Made In Italy products.

All models comply with the CEI-UNEL 36762 Standard for coexistence with power cables up to 400 V.

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DG70 / DG 80



▼ QR CODE: WEBSITE PAGE
DG 100 SERIES

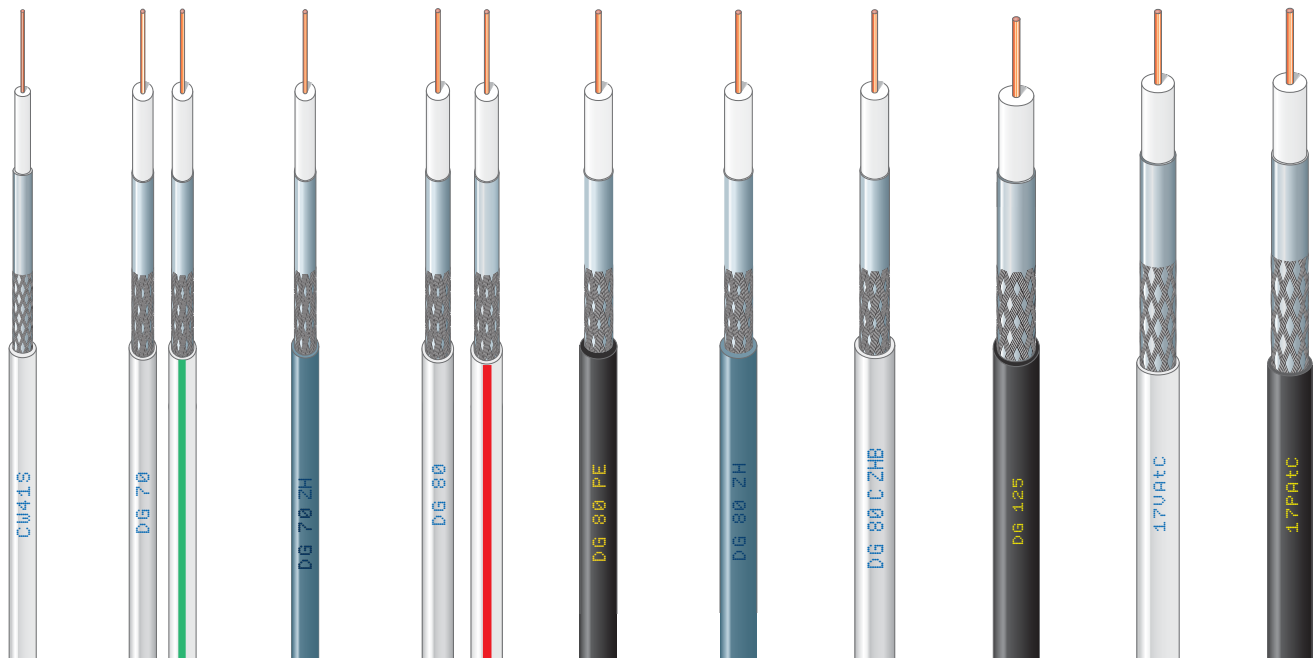


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
CW4IS	100	500	BP	R100S	-
DG70 DG70C	200	1200	SP	S200M	DS100
DG70ZH	200	1200	SP / BP	S200M	DS100
DG80 DG80C	150	900	SP	S150M	DS100
DG80PE	150	750	BP	R150M	DS100
DG80ZH	150	900	SP	S150M	DS100
DG80CZHB	150 / 500	750 / 500	BP / BL	R100M / PD500	DS100 / -
DG125	200	400	BP	R200L	DS250
17VAtC	100 / 250 / 500	600 / 500 / 500	SP / SP / BP	S100M / S250L / R500XL	DS100 / DS250 / -
17PatC	100 / 250 / 500	600 / 500 / 500	SP / SP / BP	S100M / S250L / R500XL	DS100 / DS250 / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011
CAVEL CODE	
Compliance with the Standard	
RG reference	
CONSTRUCTION FEATURES	
Inner conductor	Ø mm material
Dielectric	Ø mm material
Shielding	
1. tape	material
2. braid	material
braid optical coverage	%
Outer diameter	Ø mm
Outer sheath	material
Sheath with coloured stripes	colour
PHYSICAL CHARACTERISTICS	
Copper weight	kg/km
Cable weight	kg/km
Min. bending radius 1/n	mm
Max. tensile strength	N
ELECTRICAL CHARACTERISTICS	
Impedance	Ohm
Velocity of propagation	%
Attenuation (@20°C)	
@ 5 MHz	dB/100m
@ 50 MHz	dB/100m
@ 200 MHz	dB/100m
@ 300 MHz	dB/100m
@ 470 MHz	dB/100m
@ 690 MHz	dB/100m
@ 1000 MHz	dB/100m
@ 2150 MHz	dB/100m
@ 3000 MHz	dB/100m
Structural return loss (SRL)	
@ 5 - 470 MHz	dB
@ 470 - 1000 MHz	dB
@ 1000 - 2000 MHz	dB
@ 2000 - 3000 MHz	dB
Transfer impedance (Zt)	
@ 5 - 30 MHz	mΩ/m
Shielding efficiency (SA)	Class
@ 30 - 1000 MHz	dB
@ 1000 - 2000 MHz	dB
@ 2000 - 3000 MHz	dB
DC resistance of inner/outer conductor	Ohm/km



Eca	Eca	-	Eca	Fca	Dca,s2,d2,a1	Cca, s1a,d1,a1	Fca	Eca	Fca
CW41S	DG70 DG70C	DG70ZH	DG80 DG80C	DG80PE	DG80ZH	DG80CZHB	DG125	17VA tC	17PA tC
EN50117 9-2	EN50117 9-2	EN50117 9-2 / 10-2	EN50117 9-2	EN50117 10-2	EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 10-2	EN50117 9-2	EN50117 10-2
mini RG59	-	-	RG59EU	RG59EU	RG59EU	-	-	RG6EU	RG6EU
0.41	0.70	0.70	0.80	0.80	0.80	0.80	1.25	1.13	1.13
FeCu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
1.90	3.00	3.00	3.50	3.50	3.50	3.50	5.35	4.80	4.80
PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
Al/Pet/Al+Sv	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al
CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
70	72	72	65	65	65	65	63	45	45
3.60	4.40	4.40	5.00	5.00	5.00	5.60	7.30	6.70	6.70
PVC	PVC	LSZH	PVC	PE	LSZH	LSZH-FR	PE	PVC	PE
	B - G - Y - R	-	B - G - Y - R	-	-	-	-	-	-
4.3	10.0	10.0	11.1	11.1	11.1	11.1	23.0	14.4	14.4
15.0	20.9	21.8	25.9	22.5	26.8	34.3	47.2	40.4	36.0
18/36	20/40	20/40	25/50	25/50	25/50	30/60	38/75	35/70	35/70
120	80	80	90	90	90	90	250	150	150
75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
82	85	85	85	85	85	85	85	85	85
3.8	2.5	2.5	2.1	2.1	2.1	2.1	1.4	1.6	1.6
11.0	6.7	6.7	5.7	5.7	5.7	5.7	3.7	4.1	4.1
21.2	13.0	13.0	11.0	11.0	11.0	11.0	7.3	8.0	8.0
26.2	15.9	15.9	13.5	13.5	13.5	13.5	9.0	9.8	9.8
33.0	20.2	20.2	16.8	16.8	16.8	16.8	11.5	12.4	12.4
41.0	24.0	24.0	20.4	20.4	20.4	20.4	14.0	15.1	15.1
49.0	29.9	29.9	24.9	24.9	24.9	24.9	17.2	18.5	18.5
74.6	45.0	45.0	37.4	37.4	37.4	37.4	25.8	27.9	27.9
88.9	53.7	53.7	44.8	44.8	44.8	44.8	31.0	33.4	33.4
> 25	> 28	> 28	> 30	> 30	> 30	> 30	> 28	> 30	> 30
> 21	> 28	> 28	> 28	> 28	> 28	> 28	> 28	> 28	> 28
> 20	> 26	> 26	> 26	> 26	> 26	> 26	> 26	> 26	> 26
> 18	> 22	> 22	> 22	> 22	> 22	> 22	> 22	> 22	> 22
< 10	< 7	< 7	< 9	< 9	< 9	< 9	< 11	> 85	> 85
A	A	A	A	A	A	A	A	> 80	> 80
> 85	> 90	> 90	> 90	> 90	> 90	> 90	> 85	> 70	> 70
> 85	> 75	> 75	> 75	> 75	> 75	> 75	> 85		
> 75	> 67	> 67	> 65	> 65	> 65	> 65	> 90	< 27	< 27
31.0	45.5 / 19.6	45.5 / 19.6	35.0 / 18.6	35.0 / 18.6	35.0 / 18.6	35.0 / 18.6	14.0 / 12.0	18.0 / 22.0	18.0 / 22.0

Coaxial cables | SA Class A+ | CPR Dca, Eca, Fca

DG100/113/163 SERIES

Applications

Reception and distribution of satellite and digital terrestrial signals; 8K-UHD resolution; 4G/5G protection.

DG cables are coaxial cables developed for narrowband (8 MHz) multichannel digital reception for DVB-T and T2, up to Screening Attenuation class A+, combining this feature with the simple construction of double shielding (tape-braid).

They offer high versatility of applications, from satellite reception to 8K-UHD, suitable for interconnections, drops cables, transmission and distribution, and DG113 is also available in a self-supporting version.

They are available with the following sheaths: PVC, PE, LSZH, LSZH-FR (Low Smoke Zero Halogen, Flame Retardant) for indoor, outdoor and direct burial installation, with operating temperatures from -40 to +80°C, up to fire reaction class B2ca.

All models comply with the CEI-UNEL 36762 Standard for coexistence with power cables up to 400 V.

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DG100/113/163 SERIES

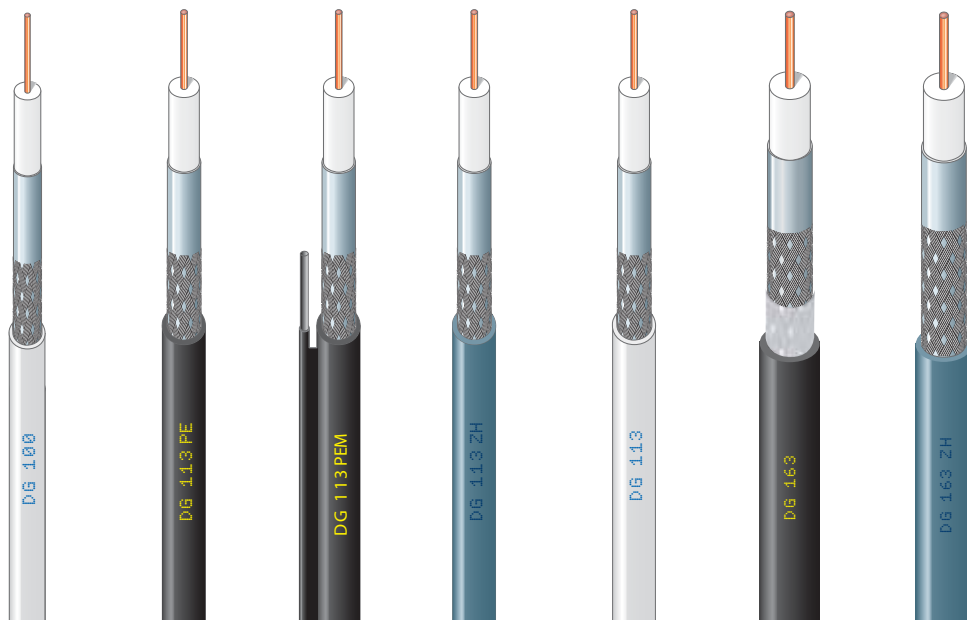


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
DG100	100 / 500	600 / 500	SP / BL	S100M / PD500	DS100 / -
DG113PE	100 / 500	600 / 500	SP / BL	S100M / PD500	DS100 / -
DG113PEM	100 / 500	200 / 500	BL / BL	R100L / R500XL	-
DG113ZH	100 / 500	600 / 500	SP / BL	S100M / PD500	DS100 / -
DG113	100 / 500	600 / 500	SP / BL	S100M / PD500	DS100 / -
DG163	250 / 500	250 / 500	BL / BL	PD250 / PD500	-
DG163ZH	250 / 500	250 / 500	BL / BL	PD250 / PD500	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011
CAVEL CODE	
Compliance with the Standard	
RG reference	
CONSTRUCTION FEATURES	
Inner conductor	Ø mm material
Dielectric	Ø mm material
Shielding	
1. tape	material
2. braid	material
braid optical coverage	%
FeZn stranding	Construction and Ø mm
Filling	
Outer diameter	Ø mm
Outer sheath	material
Sheath with coloured stripes	
PHYSICAL CHARACTERISTICS	
Copper weight	kg/km
Cable weight	kg/km
Min. bending radius 1/n	mm
Max. tensile strength	N
ELECTRICAL CHARACTERISTICS	
Impedance	Ohm
Velocity of propagation	%
Attenuation (@20°C)	
@ 5 MHz	dB/100m
@ 50 MHz	dB/100m
@ 200 MHz	dB/100m
@ 300 MHz	dB/100m
@ 470 MHz	dB/100m
@ 690 MHz	dB/100m
@ 1000 MHz	dB/100m
@ 2150 MHz	dB/100m
@ 3000 MHz	dB/100m
Structural return loss (SRL)	
@ 5 - 470 MHz	dB
@ 470 - 1000 MHz	dB
@ 1000 - 2000 MHz	dB
@ 2000 - 3000 MHz	dB
Shielding efficiency (SA)	Class
@ 30 - 1000 MHz	dB
@ 1000 - 2000 MHz	dB
@ 2000 - 3000 MHz	dB
Transfer impedance (Zt)	
@ 5 - 30 MHz	
DC resistance of inner/outer conductor	Ohm/km



	Eca	Fca	Fca	Dca,s2,d2,a1	Eca	Fca	Dca,s2,d2,a1
	DG100	DG113PE	DG113PEM	DG113ZH	DG113	DG163	DG163ZH
	EN50117 9-2	EN50117 10-2	EN50117 10-2	EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 11-2	EN50117 11-2
	RG6EU	RG6EU	-	RG6EU	RG6EU	RG11	RG11
	1.00	1.13	1.13	1.13	1.13	1.63	1.63
	Cu	Cu	Cu	Cu	Cu	Cu	Cu
	4.30	4.80	4.80	4.80	4.80	7.20	7.20
	PEG	PEG	PEG	PEG	PEG	PEG	PEG
	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al+S	Al/Pet/Al+S
	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
	76	72	72	72	72	78	78
	-	-	1 x 1.25	-	-	-	-
	-	-	-	-	-	PJ	-
	6.60	6.60	6.80 x 11.20	6.60	6.60	10.10	10.10
	PVC	PE	PE	LSZH	PVC	PE	LSZH
	B - G - Y - R	-	-	-	-	-	-
	17.5	19.2	19.2	19.2	19.2	39.5	39.5
	37.5	42.0	60.3	45.2	43.2	90.7	105.4
	35/70	35/70	35/70	35/70	35/70	50/100	50/100
	120	150	150	150	150	300	300
	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 2	75 ± 2
	85	85	85	85	85	85	85
	1.8	1.6	1.6	1.6	1.6	1.1	1.1
	4.6	4.1	4.1	4.1	4.1	2.8	2.8
	9.0	8.0	8.0	8.0	8.0	5.6	5.6
	10.7	9.8	9.8	9.8	9.8	6.9	6.9
	14.0	12.4	12.4	12.4	12.4	8.8	8.8
	17.0	15.1	15.1	15.1	15.1	10.8	10.8
	20.7	18.5	18.5	18.5	18.5	13.2	13.2
	31.1	27.9	27.9	27.9	27.9	20.1	20.1
	37.3	33.4	33.4	33.4	33.4	24.8	24.8
	> 30	> 30	> 30	> 30	> 30	> 26	> 26
	> 28	> 28	> 28	> 28	> 28	> 26	> 26
	> 26	> 26	> 26	> 26	> 26	> 23	> 23
	> 22	> 22	> 22	> 22	> 22	> 20	> 20
	A+	A+	A+	A+	A+	A+	A+
	> 100	> 95	> 95	> 95	> 95	> 95	> 95
	> 90	> 90	> 90	> 90	> 90	> 95	> 95
	> 77	> 80	> 80	> 80	> 80	> 85	> 85
	< 6	< 5	< 5	< 5	< 5	< 4	< 4
	18.0 / 13.9	18.0 / 13.9	18.0 / 13.9	18.0 / 13.9	18.0 / 13.9	8.5 / 7.5	8.5 / 7.5

Coaxial cables | SA Class A++ | CPR B₂AC, AC, ACA, ACA

TS SERIES (Triple Screen)

Applications

Broadband, 4G / 5G protection, CATV Triple Play network

TS triple-shielded cables (tape-braid-tape) represent the coaxial cables with the highest electrical performance, shielding class and fire reaction class manufactured by Italiana Conduuttori.

They provide maximum versatility across a wide range of applications, from satellite reception, to 8K-UHD, CATV and TV On Demand, and are suitable for interconnections, drop cables, signal transmission and distribution, including self-supporting versions.

They are available with PVC, PE, LSZH-FR and LSZH-FR + sheaths (Low Smoke, Zero Halogen, for indoor and outdoor installation) with operating temperatures from -40 to +80°C, up to fire reaction class B2ca.

All models comply with the CEI-UNEL 36762 Standard for coexistence with power cables up to 400 V.

▼ QR CODE: WEBSITE PAGE
TS SERIES

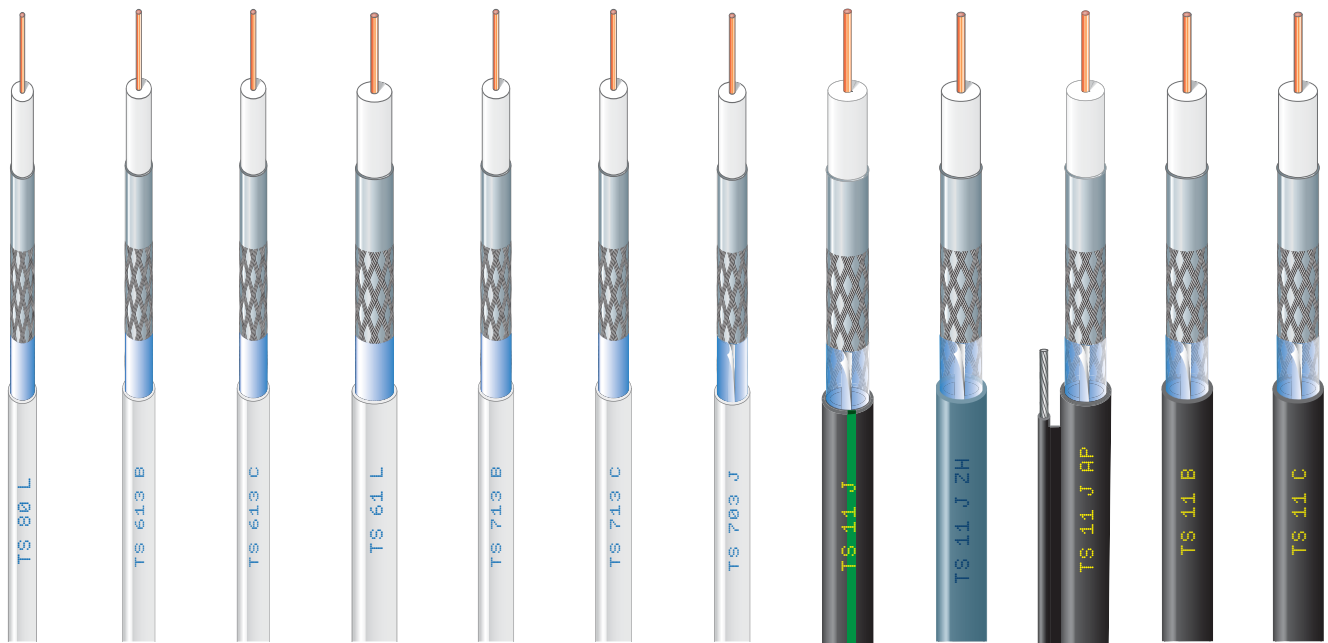


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
TS80L	150	900	SP	S150M	DS100
TS613B	100 / 500	500 / 500	BP / BP	R100M / R500XL	DS100
TS613C	100 / 500	500 / 500	BP / BP	R100M / R500XL	DS100
TS61L	100 / 500	600 / 500	SP / BL	S100M / R500XL	DS100 / -
TS713B	100 / 500	500 / 500	BP / BP	R100M / R500XL	DS100
TS713C	100 / 500	500 / 500	BP / BP	R100M / R500XL	DS100
TS703J	100	600	SP	S100M	DS100
TS11J	500	500	BL	PD500	-
TS11JZH	500	500	BL	PD500	-
TS11JAP	500	500	BL	PD500	-
TS11B	250 / 500	250 / 500	BL / BL	PD150 / PD500	-
TS11C	250 / 500	250 / 500	BL / BL	PD150 / PD500	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR EUROCLASS	EU 305/2011	
CAVEL CODE		
Compliance with the Standard		
RG reference		
CONSTRUCTION FEATURES		
Inner conductor	Ø mm	
	material	
Dielectric	Ø mm	
	material	
Shielding		
1. Tape	material	
2. Braid	material	
Braid optical coverage	%	
3. Tape	material	
Outer diameter	Ø mm	
	material	
PHYSICAL CHARACTERISTICS		
Copper weight	kg/km	
Cable weight	kg/km	
Min. bending radius 1/n	mm	
Max. tensile strength	N	
ELECTRICAL CHARACTERISTICS		
Impedance	Ohm	
Velocity of propagation	%	
Attenuation (@20°C)		
@ 5 MHz	dB/100m	
@ 50 MHz	dB/100m	
@ 200 MHz	dB/100m	
@ 300 MHz	dB/100m	
@ 470 MHz	dB/100m	
@ 690 MHz	dB/100m	
@ 1000 MHz	dB/100m	
@ 2150 MHz	dB/100m	
@ 3000 MHz	dB/100m	
Structural return loss (SRL)		
@ 5 - 470 MHz	dB	
@ 470 - 1000 MHz	dB	
@ 1000 - 2000 MHz	dB	
@ 2000 - 3000 MHz	dB	
Screening Attenuation (SA)		
Class		
@ 30 - 1000 MHz	dB	
@ 1000 - 2000 MHz	dB	
@ 2000 - 3000 MHz	dB	
Transfer impedance (Zt)		
@ 5-30 MHz	mΩ/m	
DC resistance of inner/outer conductor	Ohm/km	



	Eca	B2ca sla,d1,a1	Cca sla,d1,a1	Eca	B2ca sla,d1,a1	Cca sla,d1,a1	Eca	Fca	-	-	B2ca sla,d1,a1	Cca sla,d1,a1
	TS80L	TS613B	TS613C	TS61L	TS713B	TS713C	TS703J	TS11J	TS11JZH	TS11JAP	TS11B	TS11C
	EN50117 9-2	EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 9-2	EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 9-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2
	RG59EU	RG6	RG6	RG6EU	RG6+	RG6+	RG6+	RG11	RG11		RG11	RG11
	0.80	1.00	1.00	1.00	1.13	1.13	1.13	1.63	1.63	1.63	1.63	1.63
	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
	3.50	4.60	4.60	4.80	4.80	4.8	4.8	7.2	7.2	7.2	7.2	7.2
	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
	Al/Pet/Al	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S
	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
	65	73	73	45	71	71	45	63	63	63	63	63
	AP	AP	AP	AP	AP	AP	APJ	APJ	APJ	APJ	AP	AP
	5.2	6.9	6.9	6.8	7.0	7.0	6.9	10.3	10.3	16.0 x 10.3	10.3	10.3
	PVC	LSZH-FR+	LSZH-FR	PVC	LSZH-FR+	LSZH-FR	PVC	PE	LSZH	PE	LSZH-FR+	LSZH-FR
	11.1	17.4	17.4	12.6	19.4	19.4	14.6	34.6	34.6	34.6	34.6	34.6
	28.4	54.9	54.9	43.9	55.1	55.1	44.1	86.7	105.2	128.0	111.4	111.4
	26/52	35/70	35/70	35/70	35/70	35/70	35/70	100	100	100	100	100
	90	120	120	120	150	150	150	300	300	300	300	300
	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 3
	85	85	85	85	85	85	85	85	85	85	85	82
	2.1	1.7	1.7	1.6	1.5	1.5	1.6	1.1	1.1	1.1	1.1	1.1
	5.7	4.4	4.4	4.5	4.2	4.2	4.2	2.8	2.8	2.8	2.8	2.8
	11.1	8.6	8.6	8.7	8.1	8.1	8.0	5.2	5.2	5.2	5.2	5.2
	13.7	10.7	10.7	10.8	10	10.0	9.8	6.4	6.4	6.4	6.4	6.4
	17.4	13.4	13.4	13.7	12.5	12.5	12.5	8.1	8.1	8.1	8.1	8.1
	21.4	16.7	16.7	16.8	16.2	16.2	15.0	9.9	9.9	9.9	9.9	9.9
	25.9	20.1	20.1	20.4	18.6	18.6	18.6	12.8	12.8	12.8	12.8	12.8
	39.5	30.6	30.6	31.1	28.5	28.5	28.1	19.4	19.4	19.4	19.4	19.4
	48	37.1	37.1	37.3	34	34.0	34.0	24.5	24.5	24.5	24.5	24.5
	33	30	30	30	30	30	> 30	> 30	> 30	> 30	> 30	> 30
	27	28	28	28	28	28	> 28	> 28	> 28	> 28	> 28	> 28
	25	26	26	26	26	26	> 26	> 23	> 23	> 23	> 23	> 23
	23	22	22	22	22	22	> 22	> 20	> 20	> 20	> 20	> 20
	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++
	> 110	> 110	> 110	> 105	> 110	> 110	> 105	> 110	> 110	> 110	> 110	> 110
	> 95	> 100	> 100	> 95	> 100	> 100	> 95	> 105	> 105	> 105	> 110	> 110
	> 90	> 90	> 90	> 95	> 85	> 85	> 85	> 85	> 85	> 85	> 90	> 90
	< 2.5	< 0.9	< 0.9	< 6	< 0.9	< 0.9	< 4.0	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
	35.0 / 13.5	22.5 / 10.4	22.5 / 10.4	22.5 / 14.0	18.0 / 10.0	18.0 / 10.0	18.0 / 14.0	8.5 / 7.5	8.5 / 7.5	8.5 / 7.5	8.5 / 7.5	8.5 / 7.5

Coaxial cables | SA Class A++ | CPR B₂AC, AC, ACA, ACA

TS SERIES (Triple Screen)

Applications

Broadband, 4G / 5G protection, CATV Triple Play network

TS triple-shielded cables (tape-braid-tape) represent the coaxial cables with the highest electrical performance, shielding class and fire reaction class manufactured by Italiana Conduttori.

They provide maximum versatility across a wide range of applications, from satellite reception, to 8K-UHD, CATV and TV On Demand, and are suitable for interconnections, drop cables, signal transmission and distribution, including self-supporting versions.

They are available with both PVC, PE, LSZH-FR and LSZH-FR + sheaths (Low Smoke, Zero Halogen, for indoor and outdoor installation) with operating temperatures from -40 to +80°C, up to fire reaction class B2ca.

All models comply with the CEI-UNEL 36762 Standard for coexistence with power cables up to 400 V.

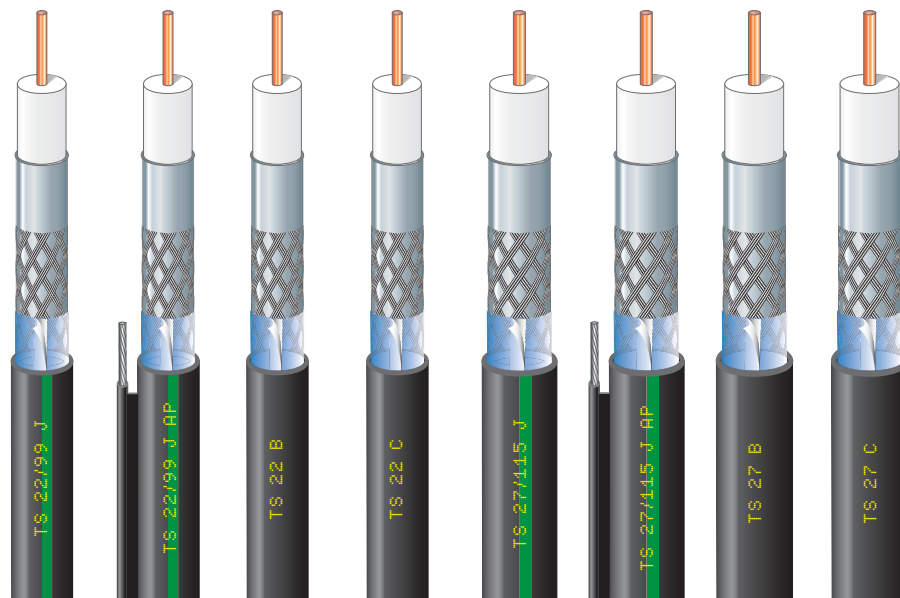
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TS SERIES



STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
TS22/99J	500	500	BL	WD500	-
TS22/99JAP	500	500	BL	WD500	-
TS22B	500	500	BL	WD500	-
TS22C	500	500	BL	WD500	-
TS27/115J	500	500	BL	WD500	-
TS27/115JAPv	500	500	BL	WD500	-
TS27B	500 / 1000	500 / 1000	BL / BL	WD500 / WD1000	-
TS27C	500 / 1000	500 / 1000	BL / BL	WD500 / WD1000	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR EUROCLASS	EU 305/2011	Fca	Fca	B2ca s1a,d1,a1	Cca s1a,d1,a1	Fca	Fca	B2ca s1a,d1,a1	Cca s1a,d1,a1
CAVEL CODE		TS22/99J	TS22/99JAP	TS22B	TS22C	TS27/115J	TS27/115JAP	TS27B	TS27C
Compliance with the Standard		EN50117 11-2	EN50117 11-2	EN50117 9-2/10-2	EN50117 9-2/10-2	EN50117 11-2	EN50117 11-2	EN50117 9-2/10-2	EN50117 9-2/10-2
RG reference									
CONSTRUCTION FEATURES									
Inner conductor	Ø mm	2.2	2.2	2.2	2.2	2.7	2.7	2.7	2.7
	material	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
Dielectric	Ø mm	9.9	9.9	9.9	9.9	11.5	11.5	11.5	11.5
	material	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
Shielding									
1. Tape	material	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+Sv
2. Braid	material	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
Braid optical coverage	%	64	64	64	64	64	64	64	64
3. Tape	material	Al-J / Pet	Al-J / Pet	Al/Pet	Al/Pet	Al-J / Pet	Al-J / Pet	Al/Pet	Al/Pet
Outer diameter	Ø mm	13.1	18.8 x 13.1	13.1	13.1	15.3	21.0 x 15.3	15.3	15.3
Outer sheath	material	PE	PE	LSZH-FR+	LSZH-FR	PE	PE	LSZH-FR+	LSZH-FR
PHYSICAL CHARACTERISTICS									
Copper weight	kg/km	61.9	61.9	61.9	61.9	83.2	83.2	83.2	83.2
Cable weight	kg/km	137.7	179.0	175.5	175.5	188.4	230.0	228.7	228.7
Min. bending radius 1/n	mm	130	130	130	130	150	150	150	150
Max. tensile strength	N	600	600	600	600	800	800	800	800
ELECTRICAL CHARACTERISTICS									
Impedance	Ohm	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2
Velocity of propagation	%	85	85	85	85	85	85	85	85
Attenuation (at 20°C)									
@ 5 MHz	dB/100m	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
@ 50 MHz	dB/100m	2.2	2.2	2.2	2.2	1.8	1.8	1.8	1.8
@ 200 MHz	dB/100m	4.2	4.2	4.2	4.2	3.5	3.5	3.5	3.5
@ 300 MHz	dB/100m	5.1	5.1	5.1	5.1	4.3	4.3	4.3	4.3
@ 470 MHz	dB/100m	6.6	6.6	6.6	6.6	5.5	5.5	5.5	5.5
@ 690 MHz	dB/100m	7.9	7.9	7.9	7.9	6.9	6.9	6.9	6.9
@ 1000 MHz	dB/100m	10.0	10.0	10.0	10.0	8.3	8.3	8.3	8.3
@ 2150 MHz	dB/100m	16.0	16.0	16.0	16.0	12.5	12.5	12.5	12.5
@ 3000 MHz	dB/100m	20.0	20.0	20.0	20.0	16.6	16.6	16.6	16.6
Structural return loss (SRL)									
@ 5 - 470 MHz	dB	> 26	> 26	> 26	> 26	> 26	> 26	> 26	> 26
@ 470 - 1000 MHz	dB	> 23	> 23	> 23	> 23	> 23	> 23	> 23	> 23
@ 1000 - 2000 MHz	dB	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
@ 2000 - 3000 MHz	dB	> 18	> 18	> 18	> 18	> 18	> 18	> 18	> 18
Screening Attenuation (SA)									
@ 30 - 1000 MHz	dB	> 110	> 110	> 110	> 110	> 110	> 110	> 110	> 110
@ 1000 - 2000 MHz	dB	> 95	> 95	> 95	> 95	> 105	> 105	> 105	> 105
@ 2000 - 3000 MHz	dB	> 85	> 85	> 85	> 85	> 90	> 90	> 90	> 90
Transfer impedance (Zt)									
@ 5-30 MHz	mΩ/m	< 2.0	< 2.0	< 2.0	< 2.0	< 0.9	< 0.9	< 0.9	< 0.9
DC resistance of inner/outer conductor	Ohm/km	5.0 / 4.5	5.0 / 4.5	5.0 / 4.5	5.0 / 4.5	3.4 / 3.5	3.4 / 3.5	3.4 / 3.5	3.4 / 3.5
Suitable for CABLEBOX	item	-	-	-	-	-	-	-	-

Coaxial cables | SA Class A, A++ Low Transfer Impedance

RP SERIES (Return Path)

Applications

Broadband CATV networks, Triple Play networks, 8K-UHD resolution, 4G / 5G protection

RP cables are coaxial cables developed by Italiana Conduttori for narrowband (8 MHz) multichannel digital reception for DVB-T and T2, up to Screening Attenuation class A++, and for interaction and programming of TV On Demand via the return channel in the 5-30MHz band (Return Path), combining these features with the simple construction of double shielding (tape-braid).

They offer excellent versatility of applications, from satellite reception, up to 8K-UHD and CATV, suitable for interconnections and drop cables.

They are available with PVC, PE and LSZH sheaths (Low Smoke, Zero Halogen), for indoor and outdoor installation, with operating temperatures from -40 to +80°C, up to fire reaction class Dca.

All models comply with the CEI-UNEL 36762 Standard for coexistence with power cables up to 400 V.

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RP SERIES



STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
RP55B	100 / 150	600 / 900	SP / SP	S100M / S150M	DS100 / DS100
RP80B	150	900	SP	S150M	DS100
RP65B	100 / 250	600 / 500	SP / SP	S100M / S250L	DS100 / DS250
RP705B	100 / 250 / 500	600 / 500 / 600	SP / SP / BP	S100M / S250L / R500XL	DS100 / DS250 / -
RP705P	100 / 250 / 500	600 / 500 / 600	SP / SP / BP	S100M / S250L / R500XL	DS100 / DS250 / -
RP913B	100 / 250 / 500	600 / 500 / 600	SP / SP / BP	S100M / S250L / R500XL	DS100 / DS250 / -
RP913ZH	100	600	SP	S100M	DS100
RP913PE	100 / 250 / 500	600 / 500 / 600	SP / SP / BP	S100M / S250L / R500XL	DS100 / DS250 / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	Eca	Eca	Eca	Eca	Fca	Eca	Dca s2,d2,a1	Fca
CAVEL CODE		RP55B	RP80B	RP65B	RP705B	RP705P	RP913B	RP913ZH	RP913PE
Compliance with the Standard		EN50117 9-2;10-2	EN50117 9-2	EN50117 9-2	EN50117 9-2	EN50117 10-2	EN50117 9-2	EN50117 9-2; EN50117 10-2	EN50117 10-2
RG reference		/	/	RG6EU	RG6EU	RG6EU	RG6EU	RG6EU	RG6EU
CONSTRUCTION FEATURES									
Inner conductor	Ø mm	0.80	0.80	1.00	1.13	1.13	1.13	1.13	1.13
	material	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
Dielectric	Ø mm	3.50	3.50	4.75	4.75	4.75	4.75	4.75	4.75
	material	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
Shielding									
1. Tape	material	AP	AP	AP	AP	AP	AP	AP	AP
2. Braid	material	Al	CuSn	Al	Al	Al	CuSn	CuSn	CuSn
Braid optical coverage	%	81	79	43	43	43	72	72	72
Outer diameter	Ø mm	5.3	5.2	6.60	6.80	6.80	6.6	6.6	6.6
Outer sheath	material	PVC	PVC	PVC	PVC	PE	PVC	LSZH	PE
PHYSICAL CHARACTERISTICS									
Copper weight	kg/km	4.5	13.7	7.0	8.9	8.9	19.1	19.1	19.1
Cable weight	kg/km	24.9	31.7	36.1	38.8	33.1	44.1	45.8	39.1
Min. bending radius 1/n	mm	25/50	25/50	35/70	35/70	35/70	35/70	35/70	35/70
Max. tensile strength	N	90	90	150	150	150	150	150	150
ELECTRICAL CHARACTERISTICS									
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Velocity of propagation	%	85	85	82	85	85	85	85	85
Attenuation (@20°C)									
@ 5 MHz	dB/100m	1.9	1.9	1.5	1.3	1.3	1.4	1.4	1.4
@ 50 MHz	dB/100m	5.5	5.5	4.3	4.0	4.0	4.0	4.0	4.0
@ 200 MHz	dB/100m	11.2	11.2	8.7	8.1	8.1	8.1	8.1	8.1
@ 300 MHz	dB/100m	13.7	13.7	11.1	10.0	10.0	9.9	9.9	9.9
@ 470 MHz	dB/100m	17.5	17.5	13.6	12.5	12.5	12.6	12.6	12.6
@ 690 MHz	dB/100m	22.0	22.0	16.8	15.5	15.5	14.9	14.9	14.9
@ 1000 MHz	dB/100m	26.5	26.5	20.4	18.7	18.7	18.7	18.7	18.7
@ 2150 MHz	dB/100m	39.5	39.5	31.1	28.9	28.9	28.8	28.8	28.8
@ 3000 MHz	dB/100m	49.0	49.0	37.7	35.0	35.0	34.1	34.1	34.1
Structural return loss (SRL)									
@ 5 - 470 MHz	dB	> 30	> 30	> 30	> 30	> 30	> 30	> 30	> 30
@ 470 - 1000 MHz	dB	> 26	> 28	> 28	> 28	> 28	> 28	> 28	> 28
@ 1000 - 2000 MHz	dB	> 24	> 26	> 26	> 26	> 26	> 26	> 26	> 26
@ 2000 - 3000 MHz	dB	> 20	> 22	> 22	> 22	> 22	> 22	> 22	> 22
Transfer impedance (Zt)									
@ 5 - 30 MHz	mΩ/m	< 4.0	< 0.9	< 20.0	< 14.0	< 14.0	< 2.5	< 2.5	< 2.5
Shielding efficiency (SA)	Class	A+	A++	A+	A+	A+	A++	A++	A++
@ 30 - 1000 MHz	dB	> 95	> 105	> 95	> 95	> 95	> 110	> 110	> 110
@ 1000 - 2000 MHz	dB	> 85	> 95	> 85	> 90	> 90	> 105	> 105	> 105
@ 2000 - 3000 MHz	dB	> 80	> 85	> 80	> 75	> 75	> 90	> 90	> 90
DC resistance of inner/outer conductor	Ohm/km	35.0 / 19.0	35.0 / 11.8	22.5 / 19.0	18.0 / 22.0	18.0 / 22.0	18.0 / 10.7	18.0 / 10.7	18.0 / 10.7

Coaxial cables | SA Class A | Direct Burial

TRUNK SERIES

Applications

Broadband CATV network, Triple Play network, 8K-UltraHD resolution, 4G / 5G protection

Trunk coaxial cables (from "trunk", backbone) have been developed by ITALIAN CONDUTTORI for the transmission and distribution of signals from repeater stations to star networks for end users (CATV), combining these features with the simple construction of double shielding (tape-braid).

They are available with an outer conductor in Aluminium (tape) and Tinned Copper (braid) or fully in Bare Copper (tape and braid), all with PJ (Petrol Jelly) filling as a moisture barrier shield, which does not drip and makes them suitable even for vertical installation.

Installation can be carried out in indoor, outdoor, direct burial and aerial environments, with sheaths ranging from LSZH zero halogen, UV-resistant (for indoor and outdoor installation, for operating temperatures from -20 to + 80°C) to black PE, carbon black UV-stabilised, with operating temperatures from -40 to +80°C, a product that guarantees the best protection over time against atmospheric agents outdoors, extreme conditions in underground ducts and aerial installations.

The aerial installation version is equipped with a galvanised steel self-supporting wire, embedded within the same sheath material of the cable, in a "shotgun barrel" configuration, to increase resistance to atmospheric agents.

▼ QR CODE: WEBSITE PAGE
TRUNK SERIES



STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
11/50FC	250 / 500	250 / 500	BL / BL	PD250 / PD500	-
11/50AP	500	500	BL	PD500	-
17/73FC	250 / 500	250 / 500	BL / BL	PD250 / PD500	-
CATV11	250 / 500	250 / 500	BL / BL	PD250 / PD500	-
CATV11AP	500	500	BL	PD500	-
CATV11ZH	500	500	BL	PD500	-
RG11FC	500	500	BL	PD500	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	Fca	Fca	Fca	Fca	Fca	Dca,s2,d2,a1	Fca
CAVEL CODE		11/50FC	11/50AP	17/73FC	CATV11	CATV11AP	CATV11ZH	RG11FC
Compliance with the Standard		EN50117 10-2	EN50117 10-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2
RG reference				RG11	RG11	RG11	RG11	RG11
CONSTRUCTION FEATURES								
Inner conductor	Ø mm	1.13	1.13	1.63	1.63	1.63	1.63	1.63
	material	Cu	Cu	Cu	Cu	Cu	Cu	FeCu
Dielectric	Ø mm	4.8	4.8	7.2	7.2	7.2	7.2	7.2
	material	PEG	PEG	PEG	PEG	PEG	PEG	PEG
Shielding								
1. tape	material	Cu/Pet	Cu/Pet	Cu/Pet	Al/Pet/Al +S	Al/Pet/Al +S	Al/Pet/Al +S	Al/Pet/Al +S
2. braid	material	Cu	Cu	Cu	CuSn	CuSn	CuSn	Al
braid optical coverage	%	59	59	64	63	63	63	65
Filling		PJ	PJ	PJ	PJ	PJ	-	PJ
FeZn rope	Construction and Ø mm	-	1 x 1.25	-	-	7 x 0.80	-	-
Outer diameter	Ø mm	7.3	13.2 x 7.3	10.1	10.1	17.0 x 10.1	10.1	10.1
Outer sheath	material	PE	PE	PE	PE	PE	LSZH	PE
PHYSICAL CHARACTERISTICS								
Copper weight	kg/km	20.5	20.5	39.9	34.6	34.6	34.6	0
Cable weight	kg/km	47.5	86.9	88.2	85.6	124.2	102.6	73.5
Minimum bending radius 1/n	mm	35/70	35/70	100	100	100	100	100
Max. tensile strength	N	150	150	300	300	300	300	800
ELECTRICAL CHARACTERISTICS								
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2
Velocity of propagation	%	85	85	85	85	85	85	85
Attenuation (@20°C)								
@ 5 MHz	dB/100m	1.5	1.5	1.1	1.1	1.1	1.1	1.1
@ 50 MHz	dB/100m	3.8	3.8	2.8	2.8	2.8	2.8	2.8
@ 200 MHz	dB/100m	7.9	7.9	5.5	5.5	5.5	5.5	5.5
@ 300 MHz	dB/100m	9.7	9.7	6.9	6.9	6.9	6.9	6.9
@ 470 MHz	dB/100m	12.0	12.0	8.8	8.8	8.8	8.8	8.8
@ 690 MHz	dB/100m	14.5	14.5	10.5	10.5	10.5	10.5	10.5
@ 1000 MHz	dB/100m	17.9	17.9	13.0	13.0	13.0	13.0	13.0
@ 2150 MHz	dB/100m	27.3	27.3	20.0	20.0	20.0	20.0	20.0
@ 3000 MHz	dB/100m	33.0	33.0	25.0	25.0	25.0	25.0	25.0
Structural return loss (SRL)								
@ 5 ÷ 470 MHz	dB	> 30	> 30	> 30	> 30	> 30	> 30	> 30
@ 470 ÷ 1000 MHz	dB	> 28	> 28	> 28	> 28	> 28	> 28	> 28
@ 1000 ÷ 2000 MHz	dB	> 26	> 26	> 23	> 23	> 23	> 23	> 23
@ 2000 ÷ 3000 MHz	dB	> 22	> 22	> 20	> 20	> 20	> 20	> 20
Shielding efficiency (SA)	Class	A	A	A	A	A	A	A
@ 30 ÷ 1000 MHz	dB	> 85	> 85	> 85	> 85	> 85	> 85	> 85
@ 1000 ÷ 2000 MHz	dB	> 80	> 80	> 85	> 95	> 95	> 95	> 85
@ 2000 ÷ 3000 MHz	dB	> 65	> 65	> 80	> 90	> 90	> 90	> 80
Transfer impedance (Zt)	Class							
@ 5 ÷ 30 MHz	mΩ/m	< 11.0	< 11.0	< 7.0	< 8.0	< 8.0	< 8.0	< 15.0
DC resistance of inner/outer conductor	Ohm/km	18.0 / 14.8	18.0 / 14.8	8.5 / 9.5	8.5 / 10.0	8.5 / 10.0	8.5 / 10.0	37.5 / 11.5

Coaxial cables | SA Class A, A+ | Direct Burial

TRUNK SERIES

Applications

Broadband CATV network, Triple Play network, 4K-UltraHD resolution, 4G / 5G protection

Trunk coaxial cables (from "trunk", backbone) have been developed by ITALIAN CONDUTTORI for the transmission and distribution of signals from repeater stations to star networks for end users (CATV), combining these features with the simple construction of double shielding (tape-braid).

They are available with an outer conductor in Aluminium (tape) and Tinned Copper (braid) or fully in Bare Copper (tape and braid), all with PJ (Petrol Jelly) filling as a moisture barrier shield, which does not drip and makes them suitable even for vertical installation.

Installation can be carried out in indoor, outdoor, direct burial and aerial environments, with sheaths ranging from LSZH zero halogen, UV-resistant (for indoor and outdoor installation, for operating temperatures from -20 to + 80°C) to black PE, carbon black UV-stabilised, with operating temperatures from -40 to +80°C, a product that guarantees the best protection over time against atmospheric agents outdoors, extreme conditions in underground ducts and aerial installations.

The aerial installation version is equipped with a galvanised steel self-supporting wire, embedded within the same sheath material of the cable, in a "shotgun barrel" configuration, to increase resistance to atmospheric agents.

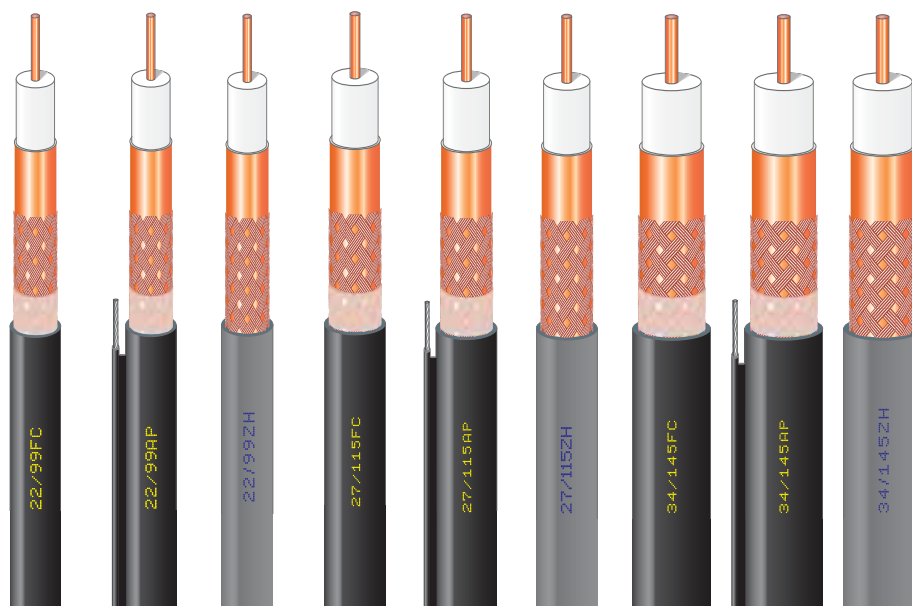
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TRUNK SERIES



STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
22/99FC	250 / 500	250 / 500	BL / BL	PD250 / WD500	-
22/99AP	500	500	BL	WD500	-
22/99ZH	250 / 500	250 / 500	BL / BL	PD250 / WD500	-
27/115FC	500	500	BL	WD500	-
27/115AP	500	500	BL	WD500	-
27/115ZH	500	500	BL	WD500	-
34/145FC	500 / 700	500 / 700	BL / BL	WD500 / WD700	-
34/145AP	700	700	BL	WD700	-
34/145ZH	500 / 700	500 / 700	BL / BL	WD500 / WD700	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	Fca	Fca	Dca s2,d2,a1	Fca	Fca	Dca s2,d2,a1	Fca	Fca	Dca s2,d2,a1
CAVEL CODE		22/99FC	22/99AP	22/99ZH	27/115FC	27/115AP	27/115ZH	34/145FC	34/145AP	34/145ZH
Compliance with the Standard		EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2	EN50117 11-2
RG reference										
CONSTRUCTION FEATURES										
Inner conductor	Ø mm	2.20	2.20	2.20	2.70	2.2	2.2	3.4	3.4	3.4
	material	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
Dielectric	Ø mm	9.9	9.9	9.9	11.5	9.9	9.9	14.5	14.5	14.5
	material	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
Shielding										
1. tape	material	Cu/Pet	Cu/Pet	Cu/Pet	Cu/Pet	Cu/Pet	Cu/Pet	Cu/Pet	Cu/Pet	Cu/Pet
2. braid	material	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
braid optical coverage	%	55	55	55	52	52	52	70	70	70
Filling		PJ	PJ	-	PJ	PJ	-	PJ	PJ	-
FeZn rope		-	7 x 0.80	-	-	7 x 0.80	-	-	7 x 0.80	-
Outer diameter	Ø mm	12.7	18.5 x 12.7	12.7	15.00	22.5 x 15.0	15.0	19.8	24.2 x 19.8	19.8
Outer sheath	material	PE	PE	LSZH	PE	PE	LSZH	PE	PE	LSZH
PHYSICAL CHARACTERISTICS										
Copper weight	kg/km	59.6	59.6	59.6	83.9	83.9	83.9	152.8	152.8	152.8
Cable weight	kg/km	130.4	174.3	150.5	179.9	222.1	208.3	331.0	361.9	404.5
Minimum bending radius 1/n	mm	150	150	150	200	200	200	250	250	250
Max. tensile strength	N	600	600	600	800	800	800	1200	1200	1200
ELECTRICAL CHARACTERISTICS										
Impedance	Ohm	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2	75 ± 2
Velocity of propagation	%	85	85	85	85	85	85	85	85	85
Attenuation (@20°C)										
@ 5 MHz	dB/100m	0.9	0.9	0.9	0.8	0.8	0.8	0.5	0.5	0.5
@ 50 MHz	dB/100m	2.2	2.2	2.2	1.8	1.8	1.8	1.4	1.4	1.4
@ 200 MHz	dB/100m	4.2	4.2	4.2	3.5	3.5	3.5	2.9	2.9	2.9
@ 300 MHz	dB/100m	5.1	5.1	5.1	4.3	4.3	4.3	3.6	3.6	3.6
@ 470 MHz	dB/100m	6.6	6.6	6.6	5.5	5.5	5.5	4.6	4.6	4.6
@ 690 MHz	dB/100m	7.9	7.9	7.9	6.9	6.9	6.9	5.8	5.8	5.8
@ 1000 MHz	dB/100m	10.0	10.0	10.0	8.3	8.3	8.3	6.9	6.9	6.9
@ 2150 MHz	dB/100m	16.0	16.0	16.0	12.5	12.5	12.5	10.6	10.6	10.6
@ 3000 MHz	dB/100m	20.0	20.0	20.0	16.6	16.6	16.6	13.3	13.3	13.3
Structural return loss (SRL)										
@ 5 ÷ 470 MHz	dB	> 26	> 26	> 26	> 26	> 26	> 26	> 26	> 26	> 26
@ 70 ÷ 1000 MHz	dB	> 23	> 23	> 23	> 23	> 23	> 23	> 23	> 23	> 23
@ 1000 ÷ 2000 MHz	dB	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20	> 20
@ 2000 ÷ 3000 MHz	dB	> 18	> 18	> 18	> 18	> 18	> 18	> 18	> 18	> 18
Shielding efficiency (SA)	Class	A	A	A	A+	A+	A+	A+	A+	A+
Typical value	dB									
@ 30 ÷ 1000 MHz	dB	> 85	> 85	> 85	> 95	> 95	> 95	> 105	> 105	> 105
@ 1000 ÷ 2000 MHz	dB	> 85	> 85	> 85	> 95	> 95	> 95	> 90	> 90	> 90
@ 2000 ÷ 3000 MHz	dB	> 70	> 70	> 70	> 75	> 75	> 75	> 75	> 75	> 75
Transfer impedance (Zt)	Class	< 8.0	< 8.0	< 8.0	< 4.0	< 4.0	< 4.0	< 2.5	< 2.5	< 2.5
@ 5 ÷ 30 MHz	mΩ/m	5.0 / 8.5	5.0 / 8.5	5.0 / 8.5	3.4 / 5.8	3.4 / 5.8	3.4 / 5.8	2.1 / 3.5	2.1 / 3.5	2.1 / 3.5
DC resistance of inner/outer conductor	Ohm/km									

Multicoaxial cables

DG, VA SERIES

Applications

They facilitate the installation and distribution of centralised systems, Dual-feed, Multiswitch systems, etc.; 8K-UltraHD resolution; 4G / 5G protection

Multicoaxial cables have been developed by Italiana Conduttori to combine the technical characteristics (electrical performance, shielding class and fire reaction class) of each cable family they are composed of, with the ability to simplify multi-user connection / wiring using a single drop in residential buildings with multiple apartments, through effective identification of each individual cable by specific colour, band or numbering.

Note: the characteristics of the individual coaxial cables are provided on pages 8-9 (DG80 and VAtC) and 10-11 (DG113).

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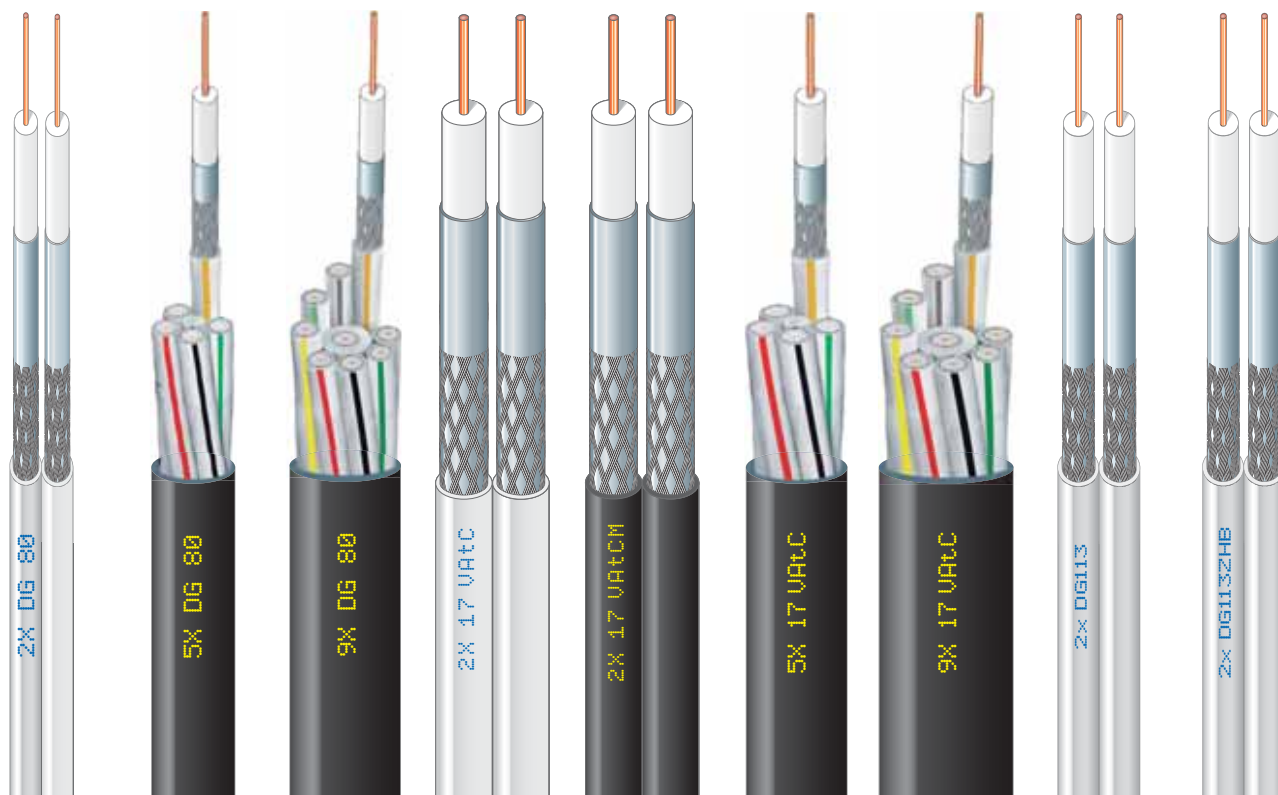


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
2xDG80	150	300	SP	S150L	DS250
5xDG80M	100	100	BL	PD100	-
9xDG80M	100	100	BL	PD100	-
2x17VAtC	100 / 250 / 500	200 / 250 / 500	SP / BP / BL	S100L / R250L / PD500	DS250 / - / -
2x17VAtCM	100 / 250 / 500	200 / 250 / 500	SP / BP / BL	S100L / R250L / PD500	DS250 / - / -
5x17VAtCM	50 / 100	50 / 100	BL / BL	PD50 / PD 100	-
9x17VAtCM	50 / 100 / 150	50 / 100 / 150	BL / BL / BL	PD50 / PD100 / PD150	-
2xDG113	100	100	BP	R100L	DS250
2xDG113ZHB	100	100	BP	R100L	DS250

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011
CABEL CODE	
Compliance with the Standard	
Configuration	
CONSTRUCTION FEATURES	
Central filler	material Ø mm
Single cable	code
Single cable sheath	material Ø mm
Spiral-wrapped film	material
Outer sheath	material
Outer diameter	Ø mm
PHYSICAL CHARACTERISTICS	
Copper weight	kg/km
Cable weight	kg/km
Minimum bending radius	mm
Max. tensile strength	N
A - Central filler B - Single cable C - Spiral-wrapped film D1 - Inner diameter D2 - Outer diameter E - Sheath	



	2xDG80	5xDG80M	9xDG80M	2x17VAtC	2x17VAtCM	5x17VAtCM	9x17VAtCM	2xDG113	2xDG113ZHB
	EN50117 9-2	EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 9-2	EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 9-2	EN50117 9-2 / 10-2
	2x	5x	9x	2x	2x	5x	9x	2x	2x
	-	White PVC	White PVC	-	-	White PVC	White PVC	-	-
	-	3.5	8.5	-	-	4.8	11.4	-	-
	DG80	DG80	DG80	17VATC	17VATC	17VATC	17VATC	DG113	DG113
	-	White PVC with coloured stripes	White PVC with coloured stripes	-	-	White PVC with coloured stripes	White PVC with coloured stripes	-	-
	-	5.0	5.0	-	-	6.7	6.7	-	-
	-	Pet	Pet	-	-	Pet	Pet	-	-
	White PVC	Black LSZH	Black LSZH	White PVC	Black LSZH	Black LSZH	Black LSZH	White PVC	White LSZH
	11.0 x 5.0	15.0	19.8	14.4 x 6.7	14.4 x 6.7	20.0	26.2	14.2 x 6.6	14.2 x 6.6
	22.3	56.0	101.5	28.9	28.9	72.9	132.3	38.4	38.4
	56.2	211.4	378.7	78.7	82.0	362.5	580.8	87.2	91.7
	25 / 50	75 / 150	100 / 200	35 / 70	35 / 70	100 / 200	130 / 260	35 / 70	35 / 70
	90	800	1400	150	150	800	1400	150	150

Hybrid cables | Coaxial, LAN, Fibre Optic tube

MULTIMEDIA SERIES

Applications

Broadband CATV networks, Triple Play networks, 8K Ultra HD resolution, 4G / 5G protection

The need to integrate different technologies such as HD video distribution and control, audio services and broadband data transmission in residential, commercial and industrial buildings, as well as in remote locations, requires the use of combinations of different types of cables assembled within a single sheath.

So-called Hybrid Cables are ideal for low-voltage applications, where a single solution combines power conductors, signal conductors and data transmission elements, without the risk of mutual interference.

By incorporating the distinctive elements of each cable into a single outer sheath, significant space is saved within conduits, installation time is drastically reduced and potential errors are minimised, while still ensuring ease of installation and high performance over time.

Hybrid cables usually combine high-performance coaxial cables with data network cables, such as Cat.6 and now also Cat.7A data cables; they can also include empty tubes of various sizes, designed to accommodate optical fibres to be installed later using blown fibre technology. They are an ideal solution for connecting machinery, electrical panels, electrical and electronic equipment and control systems.

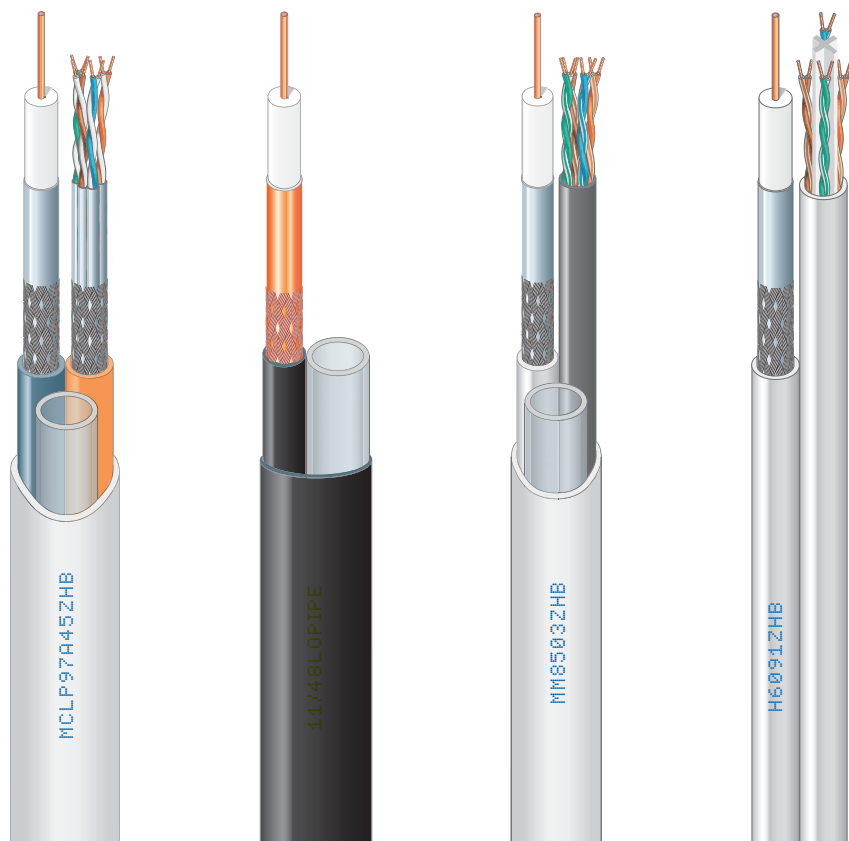
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MULTIMEDIA SERIES



STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
MCLP97A45ZHB	250 / 1000	250 / 1000	BL / BL	WD250 / WD1000	-
11/48LOPIPE	400	400	BL	PD400	-
MM8503ZHB	100 / 500	100 / 500	BL / BL	PD100 / PD500	-
H6091ZHB	100 / 500	200 / 500	BP / BL	R100L / PD500	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	Eca	Fca	/	Eca
CAVEL CODE		MCLP97A45ZHB	11/48LOPIPE	MM8503ZHB	H6091ZHB
Compliance with the Standard		EN50117 9-2 / 10-2 ISO IEC 11801 / Class II	EN50117 10-2	EN50117 9-2 / 10-2 ISO IEC 11801 / Class D	EN50117 9-2 / 10-2 ISO IEC 11801 / Class E
CONSTRUCTION FEATURES					
Cables		RP913ZH + LAN7A1500454ZHA + LOOSE PIPE	11/48LO + LOOSE PIPE	DG80ZH + LAN540ZH + LOOSE PIPE	RP913ZHB + LAN640ZHB
Cable sheath	Ø mm	6.6 + 8.2	7.1	5.0 + 5.1	-
	material	Grey LSZH + Orange LSZH	PE	Grey LSZH + Grey LSZH	-
Outer sheath	Ø mm	White LSZH	Black PE	White LSZH	White LSZH
	material	17.4 x 16.8	15.3 x 8.10	12.2 + 12.1	14.2 x 6.6
PHYSICAL CHARACTERISTICS					
Copper weight	kg/km	49.3	20.5	25.4	36.3
Cable weight	kg/km	236.0	73.1	130.0	88.0
Min. bending radius 1/n	mm	100 / 200	40 / 80	100 / 200	35 / 70
Max. tensile strength	N	150	150	90	150
STANDARD PACKAGING					
Unit size	m	250	50/400	100/500	100/100/500
Unit packaging	m	250	50/400	100/500	100/100/500
Packaging	Type	BL	BL	BL	SR / BP / BL
Packaging model					

Coaxial, Video Surveillance, LAN cables | Rodent-resistant

RODENT SERIES

RODENT cables are equipped with a double sheath, within which a galvanised iron braid reinforcement is inserted. The purpose is to preserve the integrity and electrical performance of cables installed and used in harsh environments (including the presence of rodents).

Both sheaths are made of halogen-free thermoplastic polymers, with low smoke emission, flame-retardant properties and UV resistance. On request, they can be supplied with an additional PE sheath. The reinforcement consists of a thick braid (with a coverage of more than 90%) in galvanised steel, which can also be made of stainless steel.

In addition to providing an effective barrier against rodent attacks, this specific construction is extremely effective in maintaining the transmission characteristics of the cable even in the presence of:

- Significant mechanical stress (crushing and stretching);
- Humidity;
- Abrasion;
- Harsh atmospheric agents;
- Corrosive chemical or environmental agents, etc.

These characteristics make RODENT cables ideal for use in both private and public security systems (e.g. hospitals, underground transport systems, construction sites, warehouses ...). In addition to video surveillance cables, Ethernet cables, coaxial cables and fibre optic cables are available.

On request, all Italiana Conduttori cables can be manufactured in a Rodent-resistant version.

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RODENT SERIES

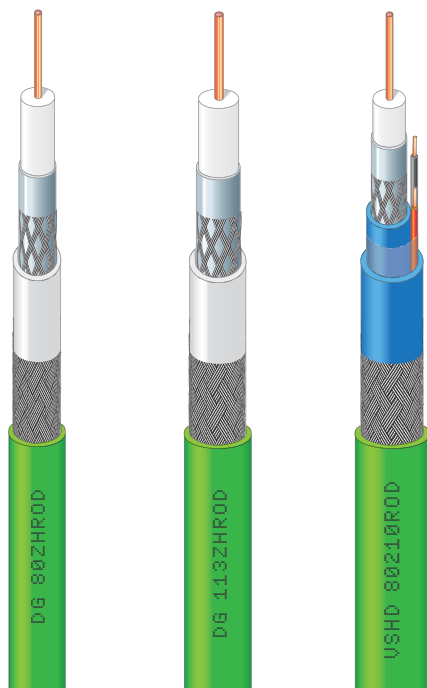


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
DG80ZHR0D	100 / 250	200 / 250	BP / BL	R100L / PD250	DS250
DG113ZHR0D	100 / 250	100 / 250	BL / BL	PD100 / PD250	-
VSHD80210R0D	100	100	BL	PD100	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011
CAVEL CODE	
Compliance with the Standard	
CONSTRUCTION FEATURES	
Inner conductor	Ø mm material
Dielectric	Ø mm material
Shielding	
1. tape	material
2. braid	material
braid optical coverage	%
Inner sheath	material
Braided reinforcement	material
Outer diameter	Ø mm
Outer sheath	material
PHYSICAL CHARACTERISTICS	
Copper weight	kg/km
Cable weight	kg/km
Min. bending radius 1/n	mm
Max. tensile strength	N
ELECTRICAL CHARACTERISTICS	
Impedance	Ohm
Velocity of propagation	%
Attenuation (@20°C)	
@ 5 MHz	dB/100m
@ 50 MHz	dB/100m
@ 200 MHz	dB/100m
@ 300 MHz	dB/100m
@ 470 MHz	dB/100m
@ 690 MHz	dB/100m
@ 1000 MHz	dB/100m
@ 2150 MHz	dB/100m
@ 3000 MHz	dB/100m
Structural return loss (SRL)	
@ 5 - 470 MHz	dB
@ 470 - 1000 MHz	dB
@ 1000 - 2000 MHz	dB
@ 2000 - 3000 MHz	dB
Shielding efficiency (SA)	Class
@ 30 - 1000 MHz	dB
@ 1000 - 2000 MHz	dB
@ 2000 - 3000 MHz	dB
Transfer impedance (Zt)	
@ 5 - 30 MHz	mΩ/m
DC resistance of inner/outer conductor	Ohm/km



-	-	-
DG80ZHR0D	DG113ZHR0D	VSHD80210R0D
EN50117 9-2 / 10-2	EN50117 9-2 / 10-2	EN50117 9-1 / 10-1
0.80	1.13	0.80
Cu	Cu	Cu
3.50	4.80	3.50
PEG	PEG	PEG
Al/Pet/Al	Al/Pet/Al	Al/Pet/Al
CuSn	CuSn	CuSn
65	72	65
LSZH	LSZH	LSZH
FeZn	FeZn	FeZn
7.80	9.40	9.90 x 6.80
LSZH	LSZH	LSZH
11.1	19.2	27.8
90.0	128.0	74.3
40/80	50/100	50/100
90	150	90
75 ± 3	75 ± 3	75 ± 3
85	85	85
2.1	1.6	1.3
5.7	4.1	1.6
11.0	8.0	1.9
13.5	9.8	2.1
16.8	12.4	11.0
20.4	15.1	23.0
24.9	18.5	
37.4	27.9	
44.8	33.4	> 30
		> 28
> 30	> 30	> 26
> 28	> 28	> 22
> 26	> 26	> 90
> 22	> 22	> 75
A	A+	A
> 90	> 95	> 65
> 75	> 90	35.0 / 18.6
> 65	> 80	/
< 9	< 5	< 9
35.0 / 18.6	18.0 / 13.9	35.0 / 18.6

CPR Euroclass	EU 305/2011	-
CAVEL CODE		LAN6A44ZHBROD
Category		6A F/FTP
Configuration		4x2x AWG23/1
Standards		ANSI/TIA-568.2-D, CEI-UNEL 36762, EN 50173, EN 50288-10-1, IEC 61156-5; ISO/IEC 11801 - Class Ea; EN 50575
CONSTRUCTION FEATURES		
Inner conductor	Ø mm	0.57
	material	Cu
Insulation	Ø mm	1.35
	material	PEG
Shielding		F/FTP
Inner sheath diameter	Ø mm	8.30
Braided reinforcement	material	FeZn
Outer diameter	size mm	11.30
Outer sheath	material	LSZH
PHYSICAL CHARACTERISTICS		
Copper weight	kg/km	19.9
Cable weight	kg/km	170.0
Minimum bending radius 1/n	mm	55/110
Max. tensile strength	N	200
ELECTRICAL CHARACTERISTICS		
Impedance @100 MHz	Ohm	100 ± 5
Velocity of propagation	%	77
Transfer impedance (Zt)		
1 MHz	mΩ/m	< 11
10 MHz	mΩ/m	< 5
30 MHz	mΩ/m	< 3
Shielding efficiency (SA)		
@ 30 ÷ 100 MHz	dB	> 70
@ 100 ÷ 500 MHz	dB	> 60
DC resistance of inner/outer conductor	Ohm/km	75
Loop resistance	Ohm/km	150
Insulation resistance (500V)	MΩm/km	> 5000
Sheath insulation voltage (1 min DC)	kV	1

LAN CAT 6A RODENT-RESISTANT CABLE					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	2.1	20.0	90.0	87.9
@ 10 MHz	MHz	5.4	25.0	90.6	84.6
@ 20 MHz	MHz	7.7	25.0	85.0	77.3
@ 62.5 MHz	MHz	13.3	25.0	80.0	66.3
@ 100 MHz	MHz	17.4	25.0	80.0	62.6
@ 250 MHz	MHz	28.1	25.0	75.0	46.9
@ 500 MHz	MHz	40.0	25.0	70.0	30.0

Coaxial cables | 50 Ohm | Wireless

WL SERIES

Applications

Broadband CATV networks, Triple Play networks, 8K Ultra HD resolution, 4G / 5G protection

These are 50 Ohm cables developed by Italiana Conduttori for use in Wireless Networks (radio base stations, paging systems), RFID (access control), In-Building Communications (inside buildings, tunnels, construction sites, major infrastructure works), Railway Transmission Systems, Telemetry and Military applications.

They are characterised by high flexibility, low attenuation losses and high shielding performance.

They are equipped with PVC, PE and LSZH sheaths to adapt to a wide range of applications, including heavy-duty use, for indoor, outdoor and direct burial installations.

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WL SERIES

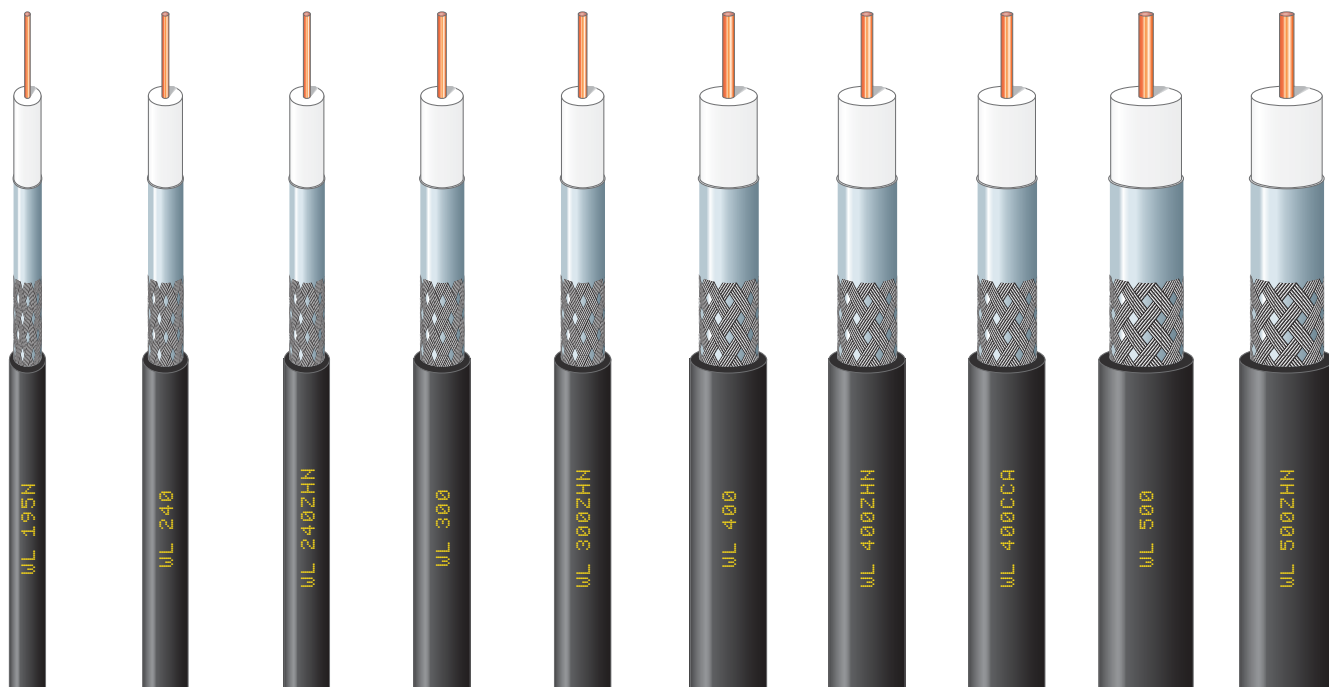


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
WL195N	100	500	BP	R100M	DS100
WL240	100	500	BP	R100M	DS100
WL240N	100	500	BP	R100M	DS100
WL240ZHN	100	500	BP	R100M	DS100
WL300	200	400	BP	R200L	DS250
WL300ZHN	200	400	BP	R200L	DS250
WL400	100 / 500	100 / 500	BP / BL	R100L / PD500	DS250
WL400ZHN	100 / 500	100 / 500	BP / BL	R100L / PD500	DS250
WL500	250 / 500	250 / 500	BL / BL	PD250 / PD500	-
WL500ZHN	250 / 500	250 / 500	BL / BL	PD250 / PD500	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011
CAVEL CODE	
Compliance with the Standard	EN50117
CONSTRUCTION FEATURES	
Inner conductor	Ø mm material
Dielectric	Ø mm material
Shielding	
1. Tape	material
2. Braid	material
Braid optical coverage	%
Outer diameter	Ø mm
Outer sheath	material
PHYSICAL CHARACTERISTICS	
Copper weight	kg/km
Cable weight	kg/km
Min. bending radius 1/n	mm
Max. tensile strength	N
ELECTRICAL CHARACTERISTICS	
Impedance	Ohm
Velocity of propagation	%
Attenuation (@20°C)	
@ 50 MHz	dB/100m
@ 220 MHz	dB/100m
@ 450 MHz	dB/100m
@ 900 MHz	dB/100m
@ 1800 MHz	dB/100m
@ 3000 MHz	dB/100m
@ 4000 MHz	dB/100m
@ 4800 MHz	dB/100m
@ 5800 MHz	dB/100m
Structural return loss (SRL)	
@ 5 - 470 MHz	dB
@ 470 - 1000 MHz	dB
@ 1000 - 2000 MHz	dB
@ 2000 - 3000 MHz	dB
Shielding efficiency (SA)	
@ 30 - 1000 MHz	dB
DC resistance of inner/outer conductor	
Maximum power	
@150 MHz	W
@450 MHz	W
@1500 MHz	W
@1800 MHz	W
@2500 MHz	W



	-	-	-	Fca	-	Fca	Fca	Fca	-	Fca
	WL195N	WL240	WL240ZHN	WL300	WL300ZHN	WL400	WL400ZHN	WL400CCA	WL500	WL500ZHN
	1.00	1.40	1.40	1.80	1.80	2.70	2.70	2.74	3.4	3.4
	Cu	Cu	Cu	Cu	Cu	Cu	Cu	CCA	Cu	Cu
	2.80	3.80	3.80	4.80	4.80	7.20	7.20	7.20	9.40	9.40
	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al+S
	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
	82	77	77	84	84	82	82	82	78	78
	4.95	6.10	6.10	7.60	7.60	10.30	10.30	10.30	12.7	12.7
	PVC	PE	LSZH	PE	LSZH	PE	LSZH	LSZH	PE	LSZH
	16.7	25.3	25.3	43.9	43.9	80.4	80.4	29.0	116.0	116.0
	34.3	43.6	51.9	71.6	82.5	128.2	148.8	117.3	185.7	212.2
	25/50	31/61	31/61	38/76	38/76	52/103	52/103	50/100	65/130	65/130
	180	360	360	540	540	720	720	700	1150	1150
	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2
	82	82	82	85	85	85	85	85	85	85
	8.0	6.0	6.0	4.1	4.1	2.8	2.8	2.8	2.3	2.3
	15.8	11.8	11.8	9.0	9.0	6.0	6.0	6.0	5.0	5.0
	22.7	16.9	16.9	13.0	13.0	8.7	8.7	8.7	7.6	7.6
	32.2	24.0	24.0	18.6	18.6	12.5	12.5	12.5	11.0	11.0
	47.0	35.2	35.2	27.5	27.5	18.2	18.2	18.2	17.0	17.0
	61.0	47.0	47.0	36.4	36.4	24.7	24.7	24.7	21.4	21.4
	72.5	55.0	55.0	43.3	43.3	28.4	28.4	28.4	25.8	25.8
	80.5	59.5	59.5	47.4	47.4	31.0	31.0	31.0	28.3	28.3
	92.0	68.0	68.0	54.0	54.0	37.0	37.0	37.0	32.5	32.5
	> 30	> 30	> 30	> 30	> 30	> 30	> 30	> 30	> 30	> 30
	> 28	> 28	> 28	> 28	> 28	> 28	> 28	> 28	> 28	> 28
	> 26	> 24	> 24	> 26	> 26	> 26	> 26	> 26	> 26	> 26
	> 20	> 20	> 20	> 22	> 22	> 22	> 22	> 22	> 22	> 22
	> 90	> 90	> 90	> 90	> 90	> 90	> 90	> 90	> 90	> 90
	22.1 / 15.3	11.2 / 12.4	11.2 / 12.4	7.0 / 7.3	7.0 / 7.3	3.4 / 6.0	3.4 / 6.0	5.5 / 6.0	2.1 / 4.2	2.1 / 4.2
	390	620	620	920	920	1470	1470	1350	1930	1930
	220	350	350	520	520	1200	1200	780	1090	1090
	120	190	190	280	280	430	430	410	570	570
	110	170	170	250	250	390	390	370	520	520
	90	140	140	210	210	320	320	300	430	430

Coaxial cables | MIL-C-17 Standard

RG-U SERIES, 50 and 75 OHM

Applications

Broadband CATV networks, Triple Play networks, 8K Ultra HD resolution, 4G / 5G protection

These are cables developed by Italiana Conduttori for use in audio-video systems, transmission links, VHF-UHF radio wiring, measurement instrumentation and automotive applications, where the transfer of significant electrical power on the outer conductor (hundreds of Watts) is also required, because it is separated from the inner conductor by a compact dielectric with high insulation properties.

They are manufactured in accordance with the MIL C-17 Standard, with black PVC and LSZH sheaths, the latter designed to meet modern applications requiring improved fire performance.

▼ QR CODE: WEBSITE PAGE
MIL-C-17 STANDARD SERIES



STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
RG174A/U	100	500	BP	R100S	-
RG58C/U	150 / 500	900 / 500	SP / BP	S150M / R500XL	DS100 / - / -
RG59B/U	100 / 500	600 / 500	SP / BP	S100M / R500XL	DS100 / - / -
RG213/U	100 / 500	200 / 500	BP / BL	R100L / PD500	DS250 / - / -
RG223/U	500	500	BL	PD500	-
RG214/U	500	500	BL	PD500	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	-	-	-	-	-	-
CAVEL CODE		RG174A/U	RG58C/U	RG59B/U	RG213/U	RG223/U	RG214/U
Compliance with the Standard		MIL-C-17	MIL-C-17	MIL-C-17	MIL-C-17	MIL-C-17	MIL-C-17
CONSTRUCTION FEATURES							
Inner conductor	Ø mm	7x0.16 (0.48)	19x0.18 (0.90)	0.58	7x0.75 (2.25)	0.90	7x0.75 (2.25)
	material	FeCu	CuSn	FeCu	Cu	CuAg	CuAg
Dielectric	Ø mm	1.50	2.95	3.70	7.25	2.95	7.25
	material	PE	PE	PE	PE	PE	PE
Shielding							
1st Braid	material	CuSn	CuSn	Cu	Cu	CuAg	CuAg
Braid optical coverage	%	88	93	94	96	95	95
2nd Braid	material	-	-	-	-	CuAg	CuAg
Braid optical coverage	%	-	-	-	-	96	96
Outer diameter	Ø mm	2.90	5.00	6.15	10.30	5.40	10.80
Outer sheath	material	PVC	PVC	PVC	PVC	PVC	PVC
PHYSICAL CHARACTERISTICS							
Copper weight	kg/km	4.6	16.8	19.8	75.2	35.6	116.3
Cable weight	kg/km	11.8	36.1	51.5	150.1	55.6	196.4
Min. bending radius 1/n	mm	15/30	25/50	30/60	50/100	30/60	50/100
Max. tensile strength	N	120	90	200	400	100	400
ELECTRICAL CHARACTERISTICS							
Impedance	Ohm	50 ± 2	50 ± 2	75 ± 2	50 ± 2	50 ± 2	50 ± 2
Velocity of propagation	%	66	66	66	66	66	66
Attenuation (at 20°C)							
@ 5 MHz	dB/100m	19.1	10.7	7.7	4.1	10.1	4.1
@ 200 MHz	dB/100m	39.7	21.5	16.0	9.0	19.5	9.0
@ 300 MHz	dB/100m	49.2	27.2	19.9	11.3	24.1	11.3
@ 470 MHz	dB/100m	62.3	35.1	25.4	14.8	31.0	14.8
@ 800 MHz	dB/100m	82.5	47.3	34.0	20.4	42.2	20.4
@ 1000 MHz	dB/100m	93.4	54.2	38.7	22.6	47.1	22.6
Structural return loss (SRL)							
@ 30 - 300 MHz	dB	> 26	> 26	> 28	> 25	> 27	> 23
@ 300 - 600 MHz	dB	> 25	> 25	> 25	> 24	> 25	> 22
@ 600 - 1000 MHz	dB	> 24	> 24	> 23	> 20	> 23	> 20
Shielding efficiency (SA)							
@ 30 - 1000 MHz	dB	> 55	> 50	> 45	> 55	> 90	> 55
DC resistance of inner/outer conductor	Ohm/km	290.0 / 42.0	38.5 / 16.5	158.0 / 11.0	5.5 / 4.5	28.0 / 6.5	5.5 / 4.0
Maximum power							
@100 MHz	W	50	200	300	830	400	1000
@400 MHz	W	25	60	135	320	200	500
@1000 MHz	W	15	35	75	180	120	200

Coaxial cables | Video Surveillance

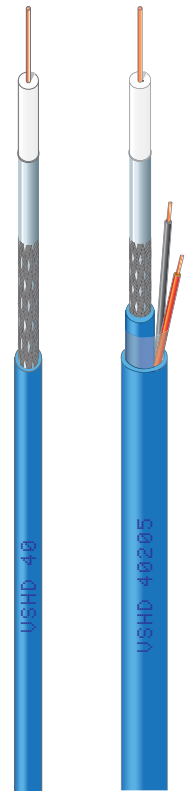
VSHD SERIES

Applications

Video surveillance with digital and analogue cameras, HD-SDI, HDCVI, AHD, HDTVI standards, with resolution up to 4K.

Cables dedicated to the video surveillance sector, manufactured in Italy by Italiana Conduttori, consist of a coaxial cable dedicated to signal transmission with the addition, depending on the model, of two power supply conductors. They are also protected by a UV-resistant, halogen-free LSZH sheath and are therefore suitable for indoor and outdoor installation, for temperatures from -20° to 80°C.

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COAXIAL CABLES FOR VIDEO SURVEILLANCE

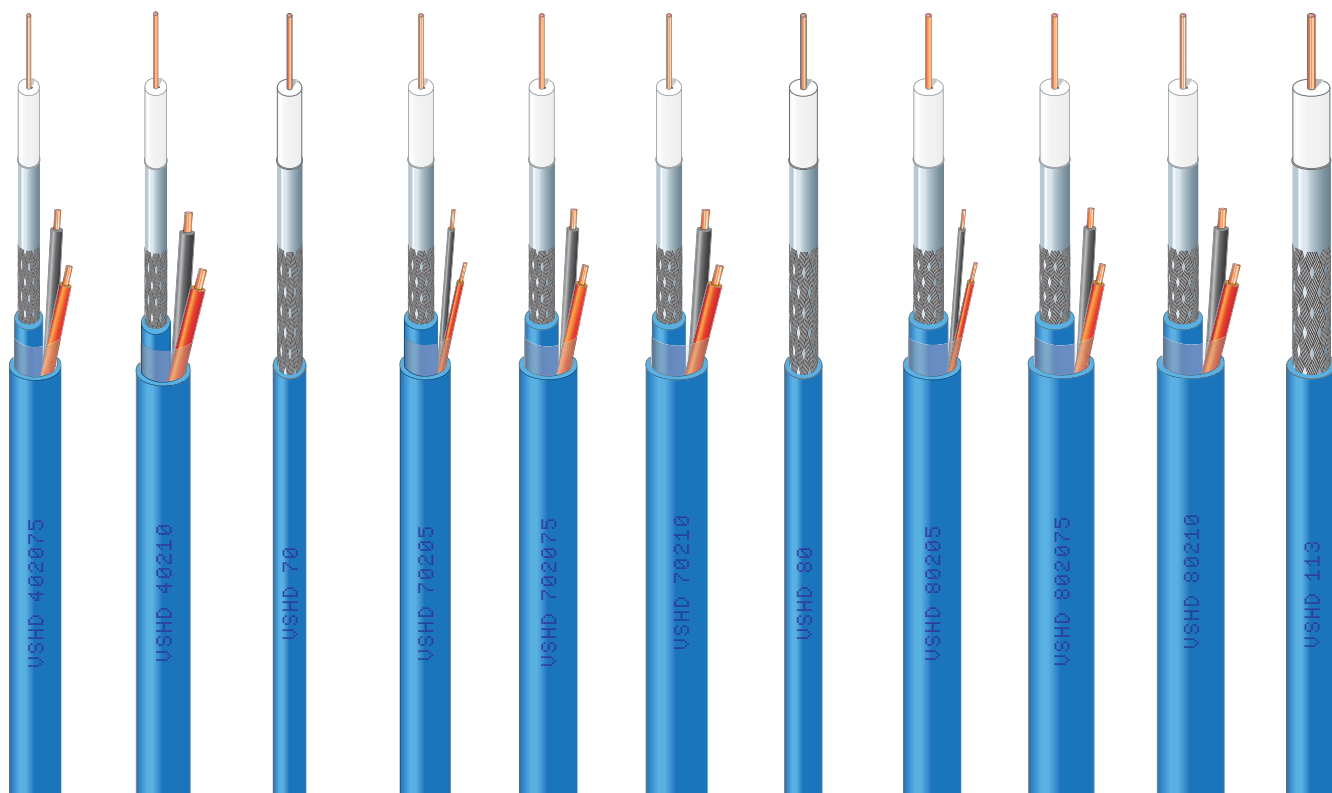


STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
VSHD40	100	500	BP	R100S	-
VSHD40205	200	400	BP	R200L	DS250
VSHD402075	200	400	BP	R200L	DS250
VSHD40210	200	400	BP	R200L	DS250
VSHD70	200	400	BP	R200L	DS250
VSHD70205	150	300	BP	R150L	DS250
VSHD702075	150	300	BP	R150L	DS250
VSHD70210	150	300	BP	R150L	DS250
VSHD80	150	750	BP	R150M	DS100
VSHD80205	150	300	BP	R150M	DS250
VSHD802075	150	300	BP	R150M	DS250
VSHD80210	150	300	BP	R150M	DS250
VSHD113	500	500	BP	R500XL	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011	Dca, s2,d2,a1	Eca
CAVEL CODE		VSHD40	VSHD40205
Compliance with the Standard	EN50117	9-1; 10-1	9-1; 10-1
CONSTRUCTION FEATURES			
Inner conductor	Ø mm	0.42	0.42
	material	Cu	Cu
Dielectric	Ø mm	1.90	1.90
	material	PEG	PEG
Shielding			
1. tape	material	Al/Pet/Al+S	Al/Pet/Al+S
2. braid	material	CuSn	CuSn
braid optical coverage	%	70	70
Filling	material	/	/
Inner sheath	material	/	LSZH
Outer sheath	material	LSZH	LSZH
Outer diameter	Ø mm	3.60	6.70 x 5.80
Power Supply Conductor Cross-Section	mm2	/	0.50
PHYSICAL CHARACTERISTICS			
Copper weight	kg/km	5.5	13.7
Cable weight	kg/km	16.1	44.5
Minimum bending radius 1/n	mm	15/30	35/70
Max. tensile strength	N	50	50
ELECTRICAL CHARACTERISTICS			
Impedance	Ohm	75 ± 3	75 ± 3
Velocity of propagation	%	82	82
Attenuation (at 20°C)			
@ 2 MHz	dB/100m	2.4	2.4
@ 3 MHz	dB/100m	2.9	2.9
@ 4 MHz	dB/100m	3.4	3.4
@ 5 MHz	dB/100m	3.8	3.8
@ 200 MHz	dB/100m	21.2	21.2
@ 862 MHz	dB/100m	45.1	45.1
Structural return loss (SRL)			
@ 5 ÷ 470 MHz	dB	> 25	> 25
@ 470 ÷ 1000 MHz	dB	> 21	> 21
@ 1000 ÷ 2000 MHz	dB	> 20	> 20
@ 2000 ÷ 3000 MHz	dB	> 18	> 18
Shielding efficiency (SA)			
Class		A	A
@ 30 ÷ 1000 MHz	dB	> 85	> 85
@ 1000 ÷ 2000 MHz	dB	> 85	> 85
@ 2000 ÷ 3000 MHz	dB	> 75	> 75
DC resistance of inner/outer conductor	Ohm/km	135 / 30	135 / 30



	Eca	Eca	Dca, s2,d2,a1	Eca	Eca	Eca	Dca, s2,d2,a1	Eca	Eca	Eca	Dca, s2,d2,a1
	VSHD402075	VSHD40210	VSHD70	VSHD70205	VSHD702075	VSHD70210	VSHD80	VSHD80205	VSHD802075	VSHD80210	VSHD113
	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1	9-1; 10-1
	0.42	0.42	0.70	0.70	0.70	0.70	0.80	0.80	0.80	0.80	1.13
	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
	1.90	1.90	3.00	3.00	3.00	3.00	3.50	3.50	3.50	3.50	4.80
	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG	PEG
	Al/Pet/Al+S	Al/Pet/Al+S	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al	Al/Pet/Al
	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn	CuSn
	70	70	72	72	72	72	65	65	65	65	72
	/	/	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ
	LSZH	LSZH	/	LSZH	LSZH	LSZH	/	LSZH	LSZH	LSZH	/
	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH	LSZH
	7.40 x 6.30	7.80 x 6.80	4.40	7.75 x 6.35	8.30 x 6.55	8.30 x 6.60	5.00	8.30 x 6.50	9.00 x 6.60	9.90 x 6.80	6.60
	0.75	1.00	/	0.50	0.75	1.00	/	0.50	0.75	1.00	/
	17.9	22.1	10.0	18.2	22.4	26.6	11.1	19.3	23.5	27.8	19.2
	50.8	60.5	21.8	47.2	58.5	66.0	26.8	56.3	65.5	74.3	45.0
	40/80	40/80	20/40	40/80	45/90	45/90	25/50	45/90	45/90	50/100	35/70
	50	50	80	80	80	80	90	90	90	90	150
	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
	82	82	85	85	85	85	85	85	85	85	85
	2.4	2.4	1.6	1.6	1.6	1.6	1.3	1.3	1.3	1.3	1.0
	2.9	2.9	1.9	1.9	1.9	1.9	1.6	1.6	1.6	1.6	1.2
	3.4	3.4	2.2	2.2	2.2	2.2	1.9	1.9	1.9	1.9	1.4
	3.8	3.8	2.5	2.5	2.5	2.5	2.1	2.1	2.1	2.1	1.6
	21.2	21.2	13.0	13.0	13.0	13.0	11.0	11.0	11.0	11.0	8.0
	45.1	45.1	27.8	27.8	27.8	27.8	23.0	23.0	23.0	23.0	17.1
	> 25	> 25	> 28	> 28	> 28	> 28	> 30	> 30	> 30	> 30	> 30
	> 21	> 21	> 28	> 28	> 28	> 28	> 28	> 28	> 28	> 28	> 28
	> 20	> 20	> 26	> 26	> 26	> 26	> 26	> 26	> 26	> 26	> 26
	> 18	> 18	> 22	> 22	> 22	> 22	> 22	> 22	> 22	> 22	> 22
	A	A	A	A	A	A	A	A	A	A	A+
	> 85	> 85	> 90	> 90	> 90	> 90	> 90	> 90	> 90	> 90	> 95
	> 85	> 85	> 75	> 75	> 75	> 75	> 75	> 75	> 75	> 75	> 90
	> 75	> 75	> 67	> 67	> 67	> 67	> 65	> 65	> 65	> 65	> 80
	135 / 30	135 / 30	45.5 / 19.6	45.5 / 19.6	45.5 / 19.6	45.5 / 19.6	35.0 / 18.6	35.0 / 18.6	35.0 / 18.6	35.0 / 18.6	18.0 / 13.9

LAN cables | Cat 5e | 100 MHz

LAN CAT 5e SERIES

Applications

Primary (Campus), Secondary (Riser), Tertiary (Horizontal), IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, IEEE 802.5 16 MB; ISDN; TPDDI; ATM; PoE; PoE+

Cat 5e cables, manufactured in Italy by Italiana Conduttori, are LAN (Local Area Network) cables approved for frequencies up to 100MHz, available with or without overall shielding and with different types of outer sheath:

- LSZH, halogen-free, UV-resistant, for indoor and outdoor installation and for temperatures from -20° to 80° C
- PE which makes the cable suitable for both outdoor use and direct burial (in this case it is always recommended to use a protective conduit). Operating temperatures range from -25°C to 80°C.

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LAN CAT 5e CABLES



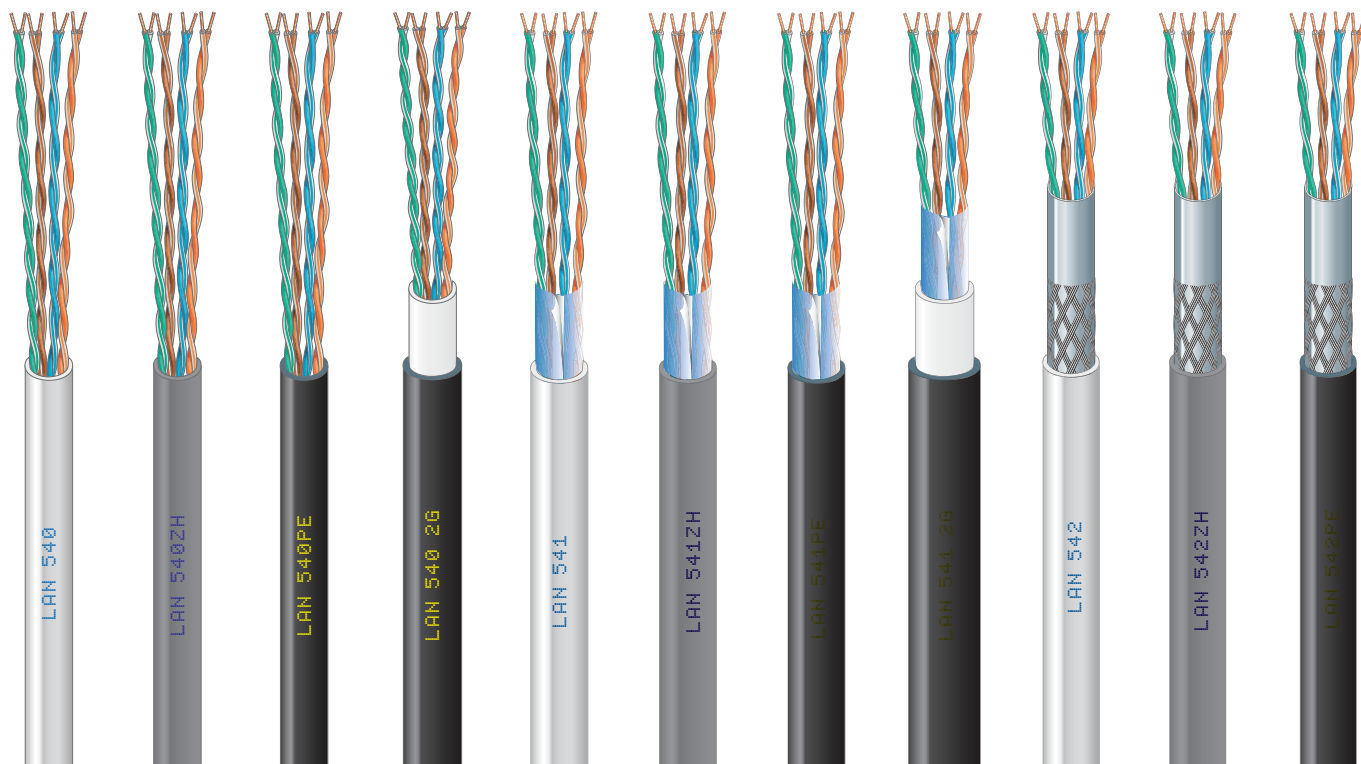
STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LAN 540	150 / 300	750 / 600	BP / BP	R150M / R300L	DS100 / DS250
LAN 540 ZH	300	600	BP	R300L	DS250
LAN 540 PE	300 / 500	600 / 500	BP / BL	R300L / PD500	DS250 / -
LAN 540 2G	300 / 500	600 / 500	BP / BL	R300L / PD500	DS250 / -
2x LAN 540 ZH	150	300	BP	R150L	DS250
LAN 541	300	600	BP	R300L	DS250
LAN 541 ZH	300	600	BP	R300L	DS250
LAN 541 PE	300 / 500	600 / 500	BP / BL	R300L / PD500	DS250 / -
LAN 541 2G	200 / 500	400 / 500	BP / BL	R200L / PD500	DS250 / -
2x LAN 541 ZH	150	300	BP	R150L	DS250
LAN 542	300 / 500	600 / 500	BP / BL	R300L / PD500	DS250 / -
LAN 542ZH	300 / 500	600 / 500	BP / BL	R300L / PD500	DS250 / -
LAN 542PE	300 / 500	600 / 500	BP / BL	R300L / PD500	DS250 / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

LAN CAT 5e CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	1.9	20.0	71.0	69.1
@ 10 MHz	MHz	6.0	25.0	56.0	50.0
@ 20 MHz	MHz	8.5	25.0	51.0	42.5
@ 31.2 MHz	MHz	10.7	24.0	49.0	38.3
@ 62.5 MHz	MHz	15.7	22.0	44.0	28.3
@ 100 MHz	MHz	19.8	20.0	41.0	21.2

CPR Euroclass	EU 305/2011
CAVEL CODE	
Category	
Configuration	
Standards	
CONSTRUCTION FEATURES	
Inner conductor	Ø mm material
Insulation	Ø mm material
Tape	material
Braid	material
Braid optical coverage	%
Outer diameter	size mm
Sheath	material
Second sheath	material
PHYSICAL CHARACTERISTICS	
Copper weight	kg/km
Cable weight	kg/km
Minimum bending radius 1/n	mm
Max. tensile strength	N
ELECTRICAL CHARACTERISTICS	
Impedance @100 MHz	Ohm
Velocity of propagation	%
Transfer impedance (Zt)	
1 MHz	mΩ/m
10 MHz	mΩ/m
30 MHz	mΩ/m
100 MHz	mΩ/m
Shielding efficiency (SA)	
@ 30 ÷ 1000 MHz	dB
DC resistance of inner/outer conductor	Ohm/km
Loop resistance	Ohm/km
Insulation resistance (500V)	MΩm/km
Sheath insulation voltage (1 min DC)	kV



	Eca	Eca	Fca	Fca	Eca	Eca	Fca	Fca	Eca	-	Fca
	LAN 540	LAN 540ZH	LAN 540 PE	LAN 540 2G	LAN 541	LAN 541ZH	LAN 541 PE	LAN 541 2G	LAN 542	LAN 542ZH	LAN 542PE
	5e U/UTP	5e U/UTP	5e U/UTP	5e U/UTP	5e F/UTP	5e F/UTP	5e F/UTP	5e F/UTP	5e SF/UTP	5e SF/UTP	5e SF/UTP
	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1	4x2 AWG24/1
ISO/IEC 11801 - Class D; CEI-UNEL 36762; ANSI/TIA-568.2-D; EN 50575; EN 50173; EN 50288-3-1; IEC 61156-5											
	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
	0.90	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00
	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE	PE
	-	-	-	-	Al/Pet	Al/Pet	Al/Pet	Al/Pet	Al/Pet	Al/Pet	Al/Pet
	-	-	-	-	-	-	-	-	CuSn	CuSn	CuSn
	-	-	-	-	-	-	-	-	61	61	61
	5.10	5.10	5.10	5.10	6.20	6.20	6.20	7.40	6.50	6.50	6.50
	PVC	LSZH	PE	PVC	PVC	LSZH	PE	PVC	PVC	LSZH	PE
	-	-	-	PE	-	-	-	PE	-	-	-
	14.3	14.3	14.3	14.3	15.6	15.6	15.6	15.6	24.2	24.2	24.2
	31.0	31.1	27.0	39.8	39.7	40.2	35.7	52.4	51.8	51.8	51.8
	20/40	20/40	20/40	25/50	25/50	25/50	25/50	30/60	25/50	30/60	25/50
	100	100	100	150	100	100	100	150	100	100	100
	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5
	67	67	67	67	67	67	67	67	67	67	67
	-	-	-	-	< 22	< 22	< 22	< 22	< 6	< 6	< 6
	-	-	-	-	< 10	< 10	< 10	< 10	< 1.5	< 1.5	< 1.5
	-	-	-	-	< 26	< 26	< 26	< 26	< 1	< 1	< 1
	-	-	-	-	-	-	-	-	< 1	< 1	< 1
	-	-	-	-	> 50	> 50	> 50	> 50	> 85	> 85	> 85
	95	95	95	95	95	95	95	95	95	95	95
	190	190	190	190	190	190	190	190	190	190	190
	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
	1	1	1	3	1	1	1	1	1	1	1

LAN cables | Cat 6 | 250 MHz

LAN CAT 6 SERIES

Applications

Primary (Campus), Secondary (Riser), Tertiary (Horizontal), IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, IEEE 802.5 16 MB; ISDN; TPDDI; ATM; PoE; PoE+.

Cat 6 cables, manufactured in Italy by Italiana Conduuttori, are LAN (Local Area Network) cables approved for frequencies up to 250MHz, available with or without overall shielding and with different types of outer sheath:

- LSZH, halogen-free, UV-resistant, for indoor and outdoor installation and for temperatures from -20° to 80° C
- PE which makes the cable suitable for both outdoor use and direct burial (in this case it is always recommended to use a protective conduit). Operating temperatures range from -25°C to 80°C.

▼ QR CODE: WEBSITE PAGE
LAN CAT 6 CABLES



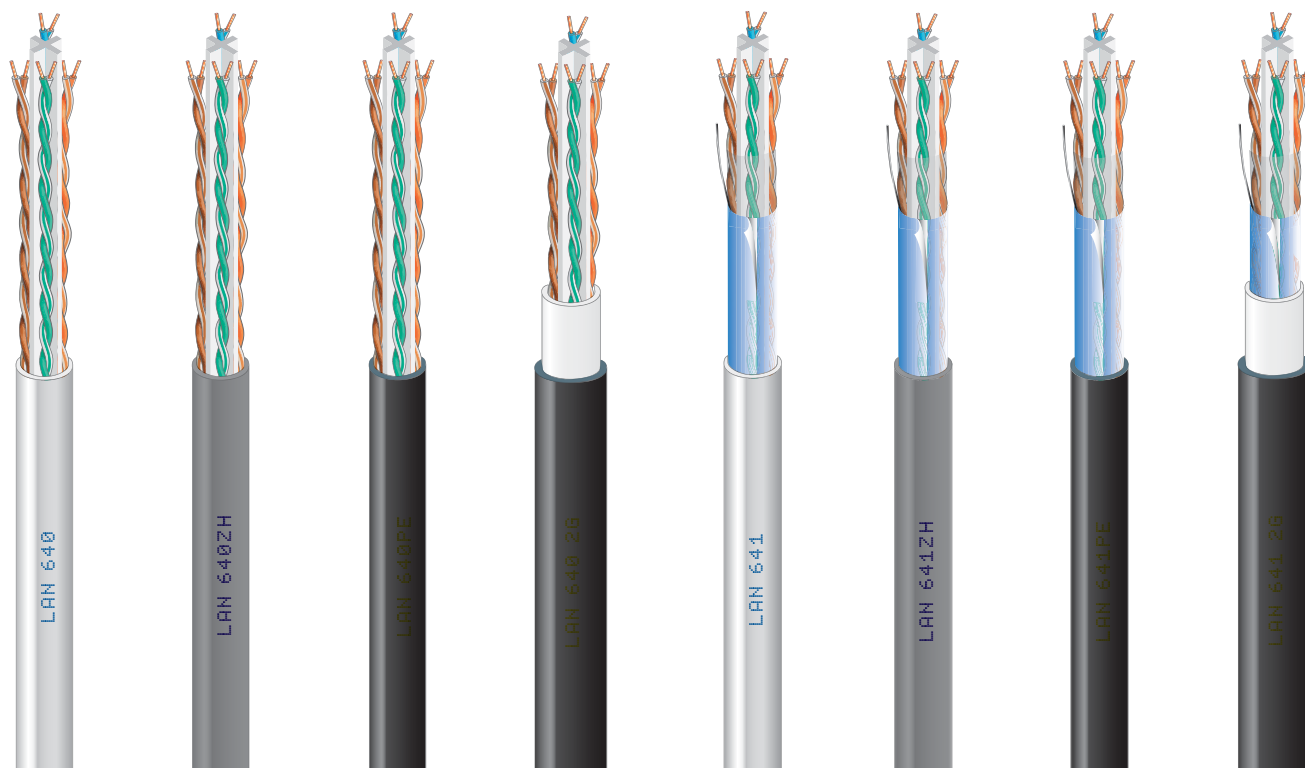
LAN CAT 6 CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	1.8	25.0	100.0	98.2
@ 10 MHz	MHz	5.4	25.0	80.00	74.6
@ 20 MHz	MHz	7.7	25.0	70.0	62.3
@ 31.2 MHz	MHz	9.6	25.0	65.0	55.4
@ 62.5 MHz	MHz	13.7	25.0	60.0	43.3
@ 100 MHz	MHz	17.4	25.0	60.0	42.6
@ 250 MHz	MHz	28.1	20.0	50.0	21.9

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LAN 640	200 / 500	400 / 500	BP / BP	R200L / R500XL	DS250 / -
LAN 640 ZH	200 / 500	400 / 500	BP / BP	R200L / R500XL	DS250 / -
LAN 640 PE	200 / 500	400 / 500	BP / BP	R200L / R500XL	DS250 / -
LAN 640 2G	200 / 500	400 / 500	BP / BL	R200L / PD500	DS250 / -
2x LAN 640 ZH	500	500	BL	PD500	- / -
LAN 641	200 / 500	400 / 500	BP / BP	R200L / R500XL	DS250 / -
LAN 641 ZH	200 / 500	400 / 500	BP / BP	R200L / R500XL	DS250 / -
LAN 641 PE	200 / 500	400 / 500	BP / BP	R200L / R500XL	DS250 / -
LAN 641 2G	200 / 500	400 / 500	BP / BL	R200L / PD500	DS250 / -
2x LAN 641 ZH	500	500	BL	PD500	- / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

CPR Euroclass	EU 305/2011
CABEL CODE	
Category	
Configuration	
Standards	
CONSTRUCTION FEATURES	
Inner conductor	Ø mm
	material
Insulation	Ø mm
	material
Tape	material
Braid	material
Braid optical coverage	%
Outer diameter	size mm
Sheath	material
Second sheath	material
PHYSICAL CHARACTERISTICS	
Copper weight	kg/km
Cable weight	kg/km
Minimum bending radius 1/n	mm
Max. tensile strength	N
ELECTRICAL CHARACTERISTICS	
Impedance @100 MHz	Ohm
Velocity of propagation	%
Transfer impedance (Zt)	
1 MHz	mΩ/m
10 MHz	mΩ/m
30 MHz	mΩ/m
100 MHz	mΩ/m
Shielding efficiency (SA)	
@ 30 ÷ 250 MHz	dB
@ 250 ÷ 1000 MHz	dB
DC resistance of inner/outer conductor	Ohm/km
Loop resistance	Ohm/km
Insulation resistance (500V)	MΩm/km
Sheath insulation voltage (1 min DC)	kV
STANDARD PACKAGING	
Method	type
Unit size	m
Unit packaging	m
Packaging	type
Packaging model	
Suitable for CABLEBOX	



	Eca	Eca	Fca	Fca	Eca	Eca	Fca	Fca
	LAN 640	LAN 640 ZH	LAN 640 PE	LAN 640 2G	LAN 641	LAN 641 ZH	LAN 641 PE	LAN 641 2G
	6 U/UTP	6 U/UTP	6 U/UTP	6 U/UTP	6 F/UTP	6 F/UTP	6 F/UTP	6 F/UTP
	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1
ISO/IEC 11801 - Class E; CEI-UNEL 36762; ANSI/TIA-568.2-D; EN 50173; EN 50288-6-1; EN 50575; IEC 61156-5								
	0.55	0.55	0.55	0.55	0.57	0.57	0.57	0.57
	Cu	Cu	Cu	Cu	Cu	Cu	Cu	Cu
	1.05	1.05	1.05	1.05	1.10	1.10	1.10	1.10
	PE	PE	PE	PE	PE	PE	PE	PE
	-	-	-	-	Al/Pet	Al/Pet	Al/Pet	Al/Pet
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	6.70	6.70	6.70	6.70	7.80	7.80	7.80	9.0
	PVC	LSZH	PE	PVC	PVC	LSZH	PE	PVC
	-	-	-	PE	-	-	-	PE
	19.9	19.9	19.9	19.9	18.6	18.6	18.6	18.6
	56.4	58.6	48.6	70.8	56.4	58.6	48.6	70.8
	37/50	37/50	37/50	37/50	37/50	37/50	37/50	37/50
	100	100	100	100	100	100	100	100
	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5
	67	67	67	67	67	67	67	67
	-	-	-	-	< 35	< 35	< 35	< 35
	-	-	-	-	< 45	< 45	< 45	< 45
	-	-	-	-	< 110	< 110	< 110	< 110
	-	-	-	-	< 150	< 150	< 150	< 150
	-	-	-	-	> 50	> 50	> 50	> 50
	-	-	-	-	> 45	> 45	> 45	> 45
	80	80	80	80	75	75	75	75
	160	160	160	160	150	150	150	150
	> 5000	> 5000	> 5000	> 5000	> 5000	> 5000	> 5000	> 5000
	1	1	1	1	1	1	1	1
	Coil	Coil	Wooden reel	Wooden reel	Coil	Coil	Wooden reel	Wooden reel
	200	200	500	500	200	200	500	500
	400	400	500	500	400	400	500	500
	S200L	S200L	PD500	PD500	S200L	S200L	PD500	PD500
	DS250	DS250	-	-	DS250	DS250	-	-

LAN cables | Cat 6A | 500 MHz

LAN CAT 6A SERIES

Applications

Primary (Campus), Secondary (Riser), Tertiary (Horizontal), IEEE 802.3 10Base-T; 100Base-T; 1000Base-T, 10GBase-T, IEEE 802.5 16 MB; ISDN; TPDDI; ATM; PoE; PoE+E

Cat 6A cables, manufactured in Italy by Italiana Conduttori, are LAN (Local Area Network) cables approved for frequencies up to 500MHz, available with or without overall shielding and with different types of outer sheath:

- LSZH, halogen-free, UV-resistant, for indoor and outdoor installation and for temperatures from -20° to 80° C
- PE which makes the cable suitable for both outdoor use and direct burial (in this case it is always recommended to use a protective conduit). Operating temperatures range from -25°C to 80°C.

▼ QR CODE: WEBSITE PAGE
LAN 6A CABLES

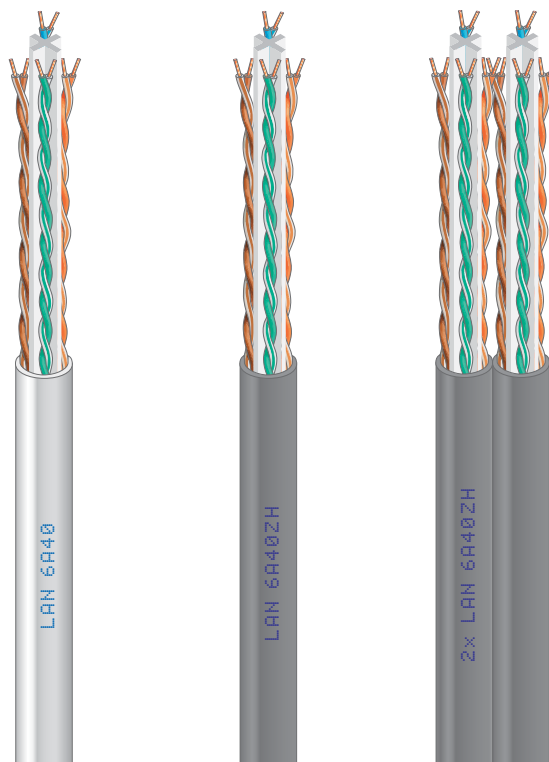


LAN CAT 6A CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100m
@ 1 MHz	MHz	1.9	20.0	100.0	98.2
@ 10 MHz	MHz	5.4	25.0	80.0	74.6
@ 20 MHz	MHz	7.7	25.0	70.0	63.2
@ 62.5 MHz	MHz	13.7	25.0	60.0	46.3
@ 100 MHz	MHz	17.4	25.0	60.0	42.6
@ 250 MHz	MHz	28.1	20.0	50.0	21.9
@ 500 MHz	MHz	40.0	15.0	42.0	2.0

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LAN 6A40	200 / 500	400 / 500	BP / BP	R200L / R500 XL	DS250 / -
LAN 6A40 ZH	200 / 500	400 / 500	BP / BP	R200L / R500 XL	DS250 / -
2x LAN 6A40 ZH	500	500	BL	PD500	- / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	Eca	Eca	-
CAVEL CODE		LAN 6A40	LAN 6A40 ZH	2X LAN 6A40 ZH
Category		6e U/UTP	6e U/UTP	2x (6e U/UTP)
Configuration		4x2 AWG23/1	4x2 AWG23/1	2x (4x2 AWG23/1)
Standards		CEI-UNEL 36762, ANSI/TIA-568.2-D, EN 50173; EN 50288-3-1, IEC 61156-5; ISO/IEC 11801 - Class Ea; EN 50575		
CONSTRUCTION FEATURES				
Inner conductor	Ø mm	0.55	0.55	0.55
	material	Cu	Cu	Cu
Insulation	Ø mm	1.05	1.05	1.05
	material	PE	PE	PE
Outer diameter	size mm	6.80	6.80	14.4 x 6.80
Outer sheath	material	PVC	LSZH	LSZH
PHYSICAL CHARACTERISTICS				
Copper weight	kg/km	18.6	18.6	34.6
Cable weight	kg/km	42.5	46.4	98.4
Minimum bending radius 1/n	mm	35/70	35/70	35/70
Max. tensile strength	N	100	100	200
ELECTRICAL CHARACTERISTICS				
Impedance @100 MHz	Ohm	100 ± 5	100 ± 5	100 ± 5
Velocity of propagation	%	67	67	67
DC resistance of inner/outer conductor	Ohm/km	80	80	80
Loop resistance	Ohm/km	160	160	160
Insulation resistance (500V)	MOhm/km	> 5000	> 5000	> 5000
Sheath insulation voltage (1 min DC)	kV	1	1	1
STANDARD PACKAGING				
Method	type	Coil	Coil	Wooden reel
Unit size	m	200	200	500
Unit packaging	m	400	400	500
Packaging	type	S200L	S200L	PD500
Packaging model				
Suitable for CABLEBOX		DS250	DS250	-

LAN cables | Cat 6A | 500 MHz

LAN CAT 6A SERIES

Applications

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)

IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T; 10GBase-T

IEEE 802.5 16 MB, ISDN, TPDDI, ATM, PoE, PoE+

Cat 6A cables, manufactured in Italy by Italiana Conduttori, are LAN (Local Area Network) cables approved for frequencies up to 500MHz, available with or without overall shielding and with different types of outer sheath:

- LSZH, halogen-free, UV-resistant, for indoor and outdoor installation and for temperatures from -20° to 80° C

- PE which makes the cable suitable for both outdoor use and direct burial (in this case it is always recommended to use a protective conduit). Operating temperatures range from -25°C to 80°C.

▼ QR CODE: WEBSITE PAGE
LAN 6A CABLES

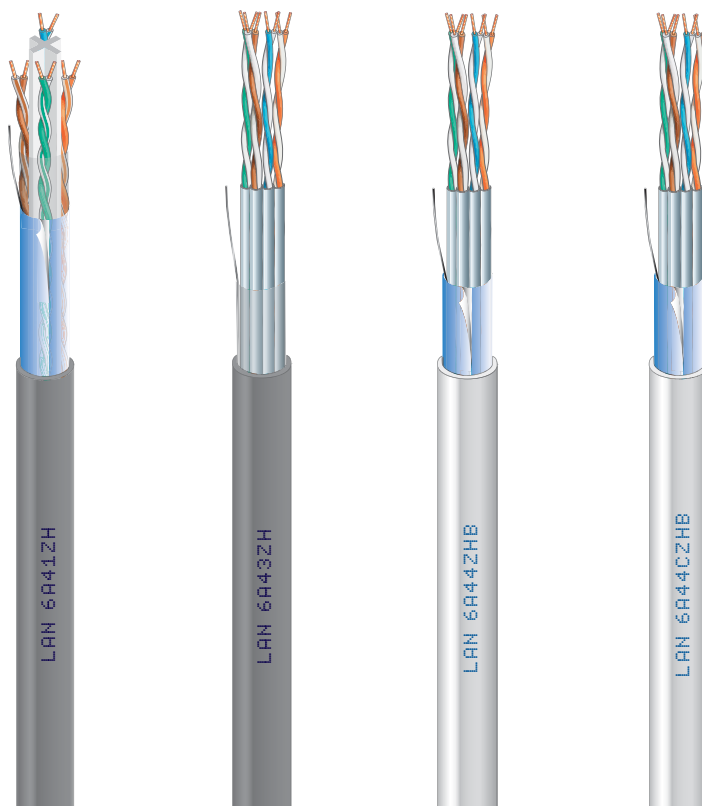


LAN CAT 6A CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	2.1	20.0	90.0	87.9
@ 10 MHz	MHz	5.4	25.0	90.6	84.6
@ 20 MHz	MHz	7.7	25.0	85.0	77.3
@ 62.5 MHz	MHz	13.3	25.0	80.0	66.3
@ 100 MHz	MHz	17.4	25.0	80.0	62.6
@ 250 MHz	MHz	28.1	25.0	75.0	46.9
@ 500 MHz	MHz	40.0	25.0	70.0	30.0

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LAN 6A41 ZH	200 / 500	400 / 500	BP / BP	R200L / R500 XL	DS250 / -
LAN 6A43 ZH	500	500	BL	PD500	- / -
LAN 6A44 ZH	500	500	BL	PD500	- / -
LAN 6A44 CZHB	500	500	BL	PD500	- / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011				
CAVEL CODE		LAN 6A41 ZH	LAN 6A43 ZH	LAN 6A44 ZH	LAN 6A44 CZHB
Category		6A F/UTP	6A U/FTP	6A F/FTP	6A F/FTP
Configuration		4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1
Standards		ANSI/TIA-568.2-D, CEI-UNEL 36762, EN 50173, EN 50288-10-1, IEC 61156-5; ISO/IEC 11801 - Class Ea; EN 50575			
CONSTRUCTION FEATURES					
Inner conductor	Ø mm	0.57	0.57	0.57	0.57
	material	Cu	Cu	Cu	Cu
Insulation	Ø mm	1.10	1.35	1.35	1.35
	material	PE	PEG	PEG	PEG
Pairs tape	material	Al/Pet	Al/Pet	Al/Pet	Al/Pet
Drain wire	material	CuSn	CuSn	CuSn	CuSn
Tape	material	Al/Pet	Al/Pet	Al/Pet	Al/Pet
Outer diameter	size mm	7.80	7.80	8.30	8.30
Sheath	material	LSZH	LSZH	LSZH	LSZH-FR
PHYSICAL CHARACTERISTICS					
Copper weight	kg/km	19.9	19.9	19.9	19.9
Cable weight	kg/km	58.6	58.1	63.3	
Minimum bending radius 1/n	mm	35/70	35/70	35/70	35/70
Max. tensile strength	N	150	150	150	150
ELECTRICAL CHARACTERISTICS					
Impedance @100 MHz	Ohm	100 ± 5	100 ± 5	100 ± 5	100 ± 5
Velocity of propagation	%	67	77	77	77
Transfer impedance (Zt)					
1 MHz	mΩ/m	n.a.	n.a.	< 11	
10 MHz	mΩ/m	n.a.	n.a.	< 5	
30 MHz	mΩ/m	n.a.	n.a.	< 3	
Shielding efficiency (SA)					
30 ÷ 100 MHz	dB	n.a.	> 70	> 70	
100 ÷ 500 MHz	dB	n.a.	> 60	670	
DC resistance of inner/outer conductor	Ohm/km	75	75	75	
Loop resistance	Ohm/km	150	150	150	
Insulation resistance (500V)	M0hm/km	> 5000	> 5000	> 5000	
Sheath insulation voltage (1 min DC)	kV	1	1	1	
STANDARD PACKAGING					
Method	type	Wooden reel	Wooden reel	Wooden reel	
Unit size	m	500	500	500	
Unit packaging	m	500	500	500	
Packaging	type	-	-	-	
Packaging model					
Suitable for CABLEBOX		-	-	-	

LAN cables | Cat 7 | 600 MHz

LAN CAT 7 SERIES

Applications

Primary (Campus), Secondary (Riser), Tertiary (Horizontal), IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, 10GBase-T (1000 MHz), 25GBase-T (1200 MHz), 40GBase-T (1500 MHz), IEEE 802.5 16 IEE 802,5 16 MB; ISDN; TPDDI; ATM; PoE; PoE+

Cat 7 cables, manufactured in Italy by Italiana Conduttori, are LAN (Local Area Network) cables approved for frequencies up to 600 MHz (Cat 7). They are available with or without overall shielding and with different types of outer sheath:

- LSZH, halogen-free, UV-resistant, for indoor and outdoor installation and for temperatures from -20° to 80° C
- PE which makes the cable suitable for both outdoor use and direct burial (in this case it is always recommended to use a protective conduit). Operating temperatures range from -25°C to 80°C.

▼ QR CODE: WEBSITE PAGE
LAN 7 CABLES



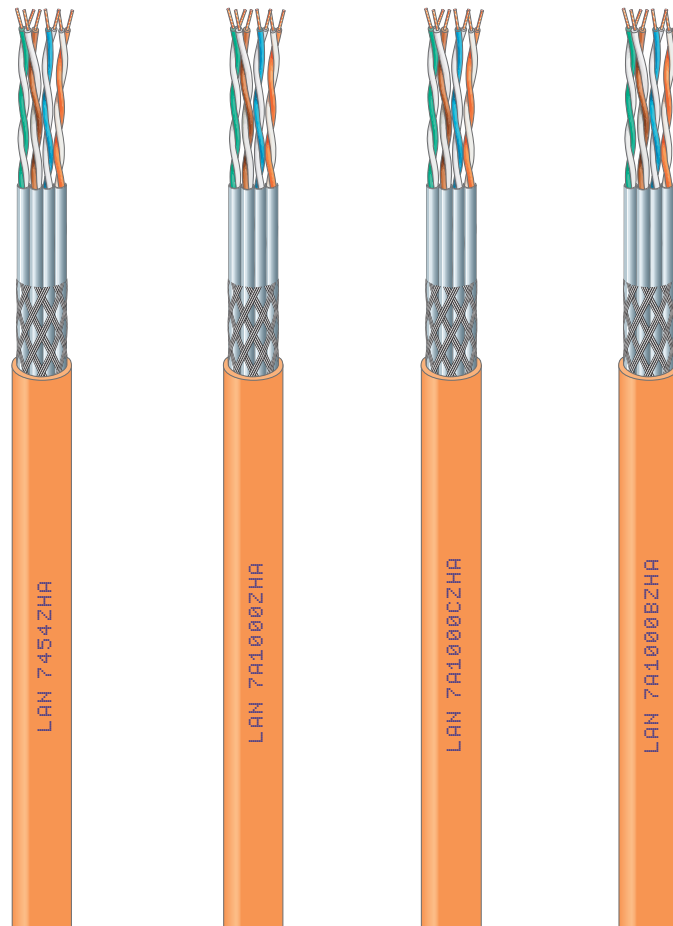
LAN CAT 7 CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	2.1	25.0	90.0	87.9
@ 20 MHz	MHz	7.7	25.0	85.0	77.3
@ 62.5 MHz	MHz	13.7	25.0	80.0	66.3
@ 100 MHz	MHz	17.4	25.0	80.0	62.6
@ 250 MHz	MHz	28.1	25.0	75.0	46.9
@ 450 MHz	MHz	38.3	25.0	70.0	31.7
@ 600 MHz	MHz	44.8	26.0	65.0	20.2
@ 1000 MHz	MHz	-	-	-	-
@ 1200 MHz	MHz	-	-	-	-
@ 1500 MHz	MHz	-	-	-	-

LAN CAT 7 1000 CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	2.1	25.0	90.0	87.9
@ 20 MHz	MHz	7.7	25.0	85.0	77.3
@ 62.5 MHz	MHz	13.7	25.0	80.0	66.3
@ 100 MHz	MHz	17.4	25.0	80.0	62.6
@ 250 MHz	MHz	28.1	25.0	75.0	46.9
@ 450 MHz	MHz	38.3	25.0	70.0	31.7
@ 600 MHz	MHz	44.8	25.0	65.0	20.2
@ 1000 MHz	MHz	58.0	20.0	65.0	7.0
@ 1200 MHz	MHz	-	-	-	-
@ 1500 MHz	MHz	-	-	-	-

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LAN7454ZHA	500	500	BL	PD500	- / -
LAN7A1000ZHA	500	500	BL	PD500	- / -
LAN7A1000BZHA	500	500	BL	PD500	- / -
LAN7A1000CZHA	500	500	BL	PD500	- / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	Dca	Dca	Cca	B2ca
CAVEL CODE		LAN7454ZHA	LAN7A1000ZHA	LAN7A1000CZHA	LAN7A1000BZHA
Category		7 S/FTP	7A S/FTP	7A S/FTP	7A S/FTP
Configuration		4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1
Standards		EN 50288-10-1; ISO/IEC 11801-Fca; EN 50173; EIA-TIA 568; CEI-UNEL 36762			
CONSTRUCTION FEATURES					
Inner conductor	Ø mm	0.57	0.57	0.57	0.57
	material	Cu	Cu	Cu	Cu
Insulation	Ø mm	1.35	1.35	1.35	1.35
	material	PEG	PEG	PEG	PEG
Shielding		S/FTP	S/FTP	S/FTP	S/FTP
Pairs shielding	material	Al/Pet	Al/Pet	Al/Pet	Al/Pet
Braid	material	CuSn	CuSn	CuSn	CuSn
Braid optical coverage	%	40%	30%	30%	30%
Outer diameter	ø	8.00	8.00	9.00	9.00
Outer sheath	material	LSZH	LSZH	LSZH	LSZH + FR
PHYSICAL CHARACTERISTICS					
Copper weight	kg/km	24.4	22.9	22.90	22.90
Cable weight	kg/km	66.4	63.3	87.80	87.80
Minimum bending radius 1/n	mm	40/80	40/80	40/80	40/80
Max. tensile strength	N	150	150	150	150
ELECTRICAL CHARACTERISTICS					
Impedance @100 MHz	Ohm	100 ± 5	100 ± 5	100 ± 5	100 ± 5
Velocity of propagation	%	77	77	77	77
Transfer impedance (Zt)					
1 MHz	dB	< 5	< 11	< 11	< 11
10 MHz	dB	< 3	< 7	< 7	< 7
30 MHz	dB	< 3	< 6	< 6	< 6
Shielding efficiency (SA)					
@ 30 ÷ 100 MHz	dB	> 80	> 70	> 70	> 70
@ 100 ÷ 1000 MHz	dB	> 85	> 60	> 60	> 60
DC resistance of inner/outer conductor	Ohm/km	75	73	73	73
Loop resistance	Ohm/km	150	146	146	146
Insulation resistance (500V)	MOhm/km	> 5000	> 5000	> 5000	> 5000
Sheath insulation voltage (1 min DC)	kV	1	1	1	1

LAN cables | Cat 7A | 1500 MHz

LAN CAT 7A SERIES

Applications

Primary (Campus), Secondary (Riser), Tertiary (Horizontal), IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, 10GBase-T (1000 MHz), 25GBase-T (1200 MHz), 40GBase-T (1500 MHz), IEEE 802.5 16 IEE 802,5 16 MB; ISDN; TPDDI; ATM; PoE; PoE+

Cat 7A cables, manufactured in Italy by Italiana Conduttori, are LAN (Local Area Network) cables approved for frequencies up to 1500 MHz. They are available with or without overall shielding and with different types of outer sheath:

- LSZH, halogen-free, UV-resistant, for indoor and outdoor installation and for temperatures from -20° to 80° C
- PE which makes the cable suitable for both outdoor use and direct burial (in this case it is always recommended to use a protective conduit). Operating temperatures range from -25°C to 80°C.

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LAN 7A CABLES



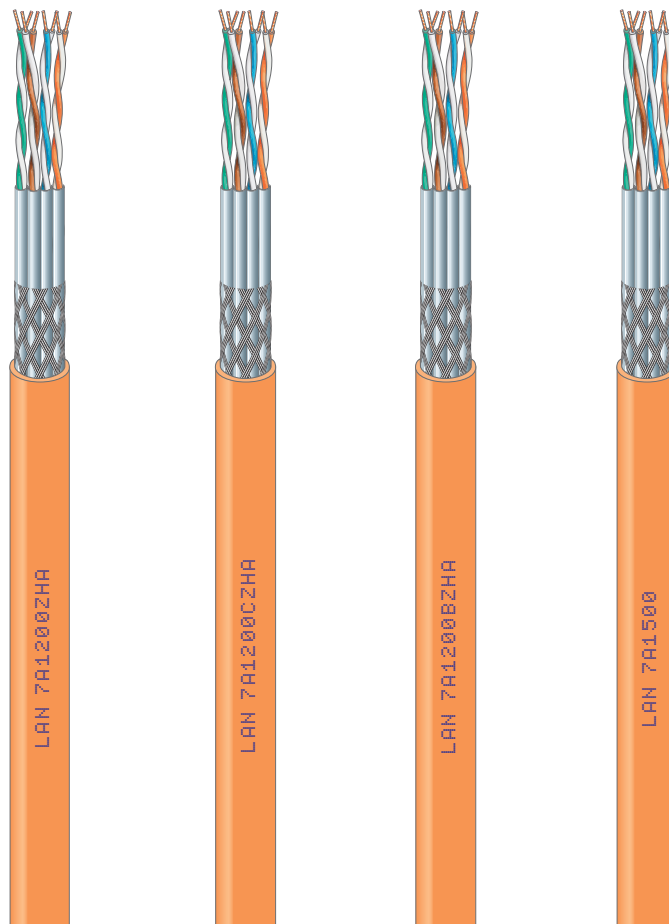
LAN CAT 7A1200 CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	2.1	25.0	90.0	87.9
@ 20 MHz	MHz	7.7	25.0	85.0	77.3
@ 62.5 MHz	MHz	13.7	25.0	80.0	66.3
@ 100 MHz	MHz	17.4	25.0	80.0	62.6
@ 250 MHz	MHz	28.1	25.0	75.0	46.9
@ 450 MHz	MHz	38.3	25.0	70.0	31.7
@ 600 MHz	MHz	44.8	25.0	65.0	20.2
@ 1000 MHz	MHz	58.0	20.0	65.0	7.0
@ 1200 MHz	MHz	62.0	20.0	60.0	-2
@ 1500 MHz	MHz	-	-	-	-

LAN CAT 7A1500 CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	2.1	25.0	90.0	88.0
@ 20 MHz	MHz	7.7	25.0	85.0	77.5
@ 62.5 MHz	MHz	13.7	25.0	80.0	66.5
@ 100 MHz	MHz	17.4	25.0	80.0	63.5
@ 250 MHz	MHz	28.1	25.0	75.0	49.6
@ 450 MHz	MHz	38.3	25.0	70.0	34.0
@ 600 MHz	MHz	44.8	25.0	65.0	24.0
@ 1000 MHz	MHz	58.0	20.0	65.0	9.7
@ 1200 MHz	MHz	62.0	20.0	60.0	-4
@ 1500 MHz	MHz	75	15.0	57.0	-22

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LAN7A1200ZHA	500	500	BL	PD500	- / -
LAN7A1200BZHA	500	500	BL	PD500	- / -
LAN7A1200CZHA	500	500	BL	PD500	- / -
LAN7A1500	500	500	BL	PD500	- / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	Dca	Cca	B2ca	Dca
CAVEL CODE		LAN7A1200ZHA	LAN7A1200CZHA	LAN7A1200BZHA	LAN7A1500
Category		7A S/FTP	7A S/FTP	7A S/FTP	7A S/FTP
Configuration		4x2x AWG23/1	4x2x AWG23/1	4x2x AWG23/1	4x2x AWG22/1
Standards		EN 50288-10-1 ; ISO/IEC 11801-Fca ; EN 50173 ; EIA-TIA 568 ; CEI-UNEL 36762			
CONSTRUCTION FEATURES					
Inner conductor	Ø mm	0.57	0.57	0.57	0.62
	material	Cu	Cu	Cu	Cu
Insulation	Ø mm	1.35	1.35	1.35	1.5
	material	PEG	PEG	PEG	PEG
Shielding		S/FTP	S/FTP	S/FTP	S/FTP
Pairs shielding	material	Al/Pet	Al/Pet	Al/Pet	Al/Pet
Braid		CuSn (41%)	CuSn (41%)	CuSn (41%)	CuSn (40%)
Outer diameter	size mm	8.00	9.00	9.00	8.30
Outer sheath	material	LSZH	LSZH	LSZH + FR	LSZH
PHYSICAL CHARACTERISTICS					
Copper weight	kg/km	24.40	24.40	24.40	30.20
Cable weight	kg/km	66.30	89.34	89.34	66.30
Minimum bending radius 1/n	mm	40/80	40/80	40/80	40/80
Max. tensile strength	N	150	150	150	150
ELECTRICAL CHARACTERISTICS					
Impedance @100 MHz	Ohm	100 ± 5	100 ± 5	100 ± 5	100 ± 5
Velocity of propagation	%	77	77	77	77
Transfer impedance (Zt)					
1 MHz	dB	< 5	< 5	< 5	< 5
10 MHz	dB	< 3	< 3	< 3	< 3
30 MHz	dB	< 3	< 3	< 3	< 3
Shielding efficiency (SA)					
@ 30 ÷ 100 MHz	dB	> 80	> 70	> 70	> 80
@ 100 ÷ 1000 MHz	dB	> 85	> 60	> 60	> 85
DC resistance of inner/outer conductor	Ohm/km	73	73	73	75
Loop resistance	Ohm/km	146	146	146	150
Insulation resistance (500V)	MOhm/km	> 5000	> 5000	> 5000	> 5000
Sheath insulation voltage (1 min DC)	kV	1	1	1	1

LAN cables | Cat 5e | 100 MHz

LAN CAT 5 SERIES, FLEXIBLE

Applications

Patch cords IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, IEEE 802.5 16 MB; ISDN; TPDDI; ATM

Flexible Cat 5e cables, manufactured in Italy by Italiana Conduttori, are LAN (Local Area Network) cables approved for frequencies up to 100MHz, available with or without overall shielding.

They offer the same electrical performance as standard LAN cables in situations involving high mechanical stress.

▼ QR CODE: WEBSITE PAGE
LAN CAT 5E U/UTP CABLES,
FLEXIBLE

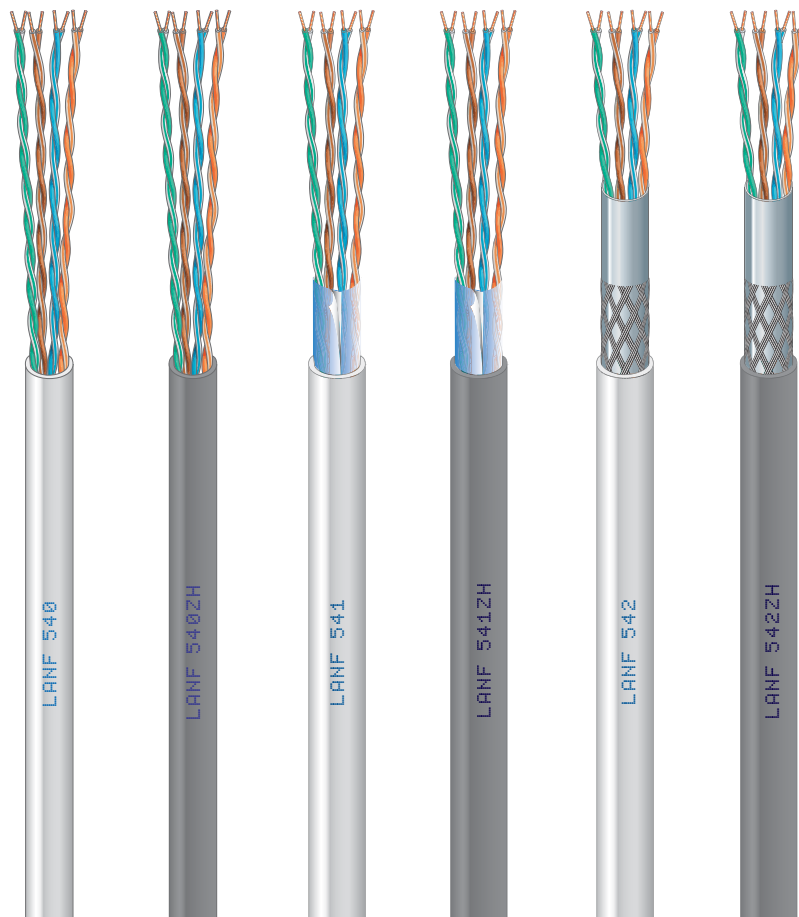


TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	0.3	20.0	71.0	70.0
@ 10 MHz	MHz	0.9	25.0	56.0	55.1
@ 20 MHz	MHz	1.3	25.0	51.0	49.7
@ 31.2 MHz	MHz	1.6	24.0	49.0	47.4
@ 62.5 MHz	MHz	2.4	22.0	44.0	41.6
@ 100 MHz	MHz	3.0	20.0	41.0	38.0
@ 155.5 MHz	MHz	3.6	-	38.0	34.4
@ 200 MHz	MHz	4.1	-	36.0	31.9
@ 250 MHz	MHz	4.4	-	35.0	30.6
@ 300 MHz	MHz	4.8	-	34.0	29.2

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LANF 540	500	500	BL	PD500	- / -
LANF 540 ZH	500	500	BL	PD500	- / -
LANF 541	500	500	BL	PD500	- / -
LANF 541 ZH	500	500	BL	PD500	- / -
LANF 542	500	500	BL	PD500	- / -
LANF 542 ZH	500	500	BL	PD500	- / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	-	-	-	-	-	-
CAVEL CODE		LANF 540	LAN F540 ZH	LANF 541	LANF 541 ZH	LANF542	LANF542ZH
Category		5e U/UTP	5e U/UTP	5e F/UTP	5e SF/UTP	5e SF/UTP	5e SF/UTP
Configuration		4x2xAWG26/7	4x2xAWG26/7	4x2xAWG26/7	4x2xAWG26/7	4x2xAWG26/7	4x2xAWG26/7
Applications		Patch cords; IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, IEEE 802.5 16 MB; ISDN; TPDDI; ATM					
Standards		EIA-TIA 568, ISO/IEC 11801, IEC 61156, EN50173-1, EN 50288-3-1					
Fire reaction	PVC	IEC 60332-1					
	LSZH	IEC 60332-1					
CONSTRUCTION FEATURES							
Inner conductor	Ø mm	7x0.16 (0.48)	7x0.16 (0.48)	7x0.16 (0.48)	7x0.16 (0.48)	7x0.16 (0.48)	
	material	Cu	Cu	Cu	Cu	Cu	Cu
Insulation	Ø mm	0.90	0.90	1.00	1.00	1.00	1.00
	material	PE	PE	PE	PE	PE	PE
Shielding	material	U/UTP	U/UTP	F/UTP	F/UTP	FS/UTP	SF/UTP
Tape	material	-	-	Al/Pet	Al/Pet	Al/Pet	Al/Pet
Braid	material	-	-	-	-	CuSn (80%)	CuSn (80%)
Outer diameter	size mm	5.10	5.10	6.00	6.00	6.00	
Outer sheath	material	PVC	LSZH	PVC	LSZH	PVC	LSZH
PHYSICAL CHARACTERISTICS							
Copper weight	kg/km	10.8	10.8	11.9	11.9	22.4	22.4
Cable weight	kg/km	26.5	28.1	31.4	32.1	43.6	44.3
Minimum bending radius 1/n	mm	20/40	20/40	25/50	25/50	25/50	25/50
Max. tensile strength	N	100	100	100	150	100	100
ELECTRICAL CHARACTERISTICS							
Impedance @100 MHz	Ohm	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5
Velocity of propagation	%	67	67	67	67	67	67
Transfer impedance (Zt)							
1 MHz	mΩ/m	-	-	< 22	< 25	< 6	< 7
10 MHz	mΩ/m	-	-	< 10	< 10	< 1.5	< 2
30 MHz	mΩ/m	-	-	< 26	< 26	< 1	< 1
Shielding efficiency (SA)							
@ 30 ÷ 100 MHz	dB	-	-	< 50	< 50	< 85	< 85
@ 100 ÷ 1000 MHz	dB	-	-	< 40	< 40	< 85	< 85
DC resistance of inner/outer conductor	Ohm/km	130	130	130	130	130	130
Loop resistance	Ohm/km	260	260	260	260	260	260
Insulation resistance (500V)	MOhm/km	< 2000	< 2000	< 2000	< 2000	< 2000	< 2000
Sheath insulation voltage (1 min DC)	kV	1	1	1	1	1	1

LAN cables | Cat 6, 6A, 7 | up to 1,000 MHz

LAN CAT 6, 6A, 7 SERIES, FLEXIBLE

Applications

Patch cords; IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, IEEE 802.5 16 MB; ISDN; TPDDI; ATM

Flexible Cat 6, 6A and 7 cables, manufactured in Italy by Italiana Conduttori, are LAN (Local Area Network) cables approved for frequencies, depending on the category, up to 1,000MHz, available with or without overall shielding

These are LAN (Local Area Network) cables that offer the same electrical performance as standard LAN cables in situations involving high mechanical stress

▼ QR CODE: WEBSITE PAGE
LAN CAT 6, 6A AND 7 CABLES,
FLEXIBLE



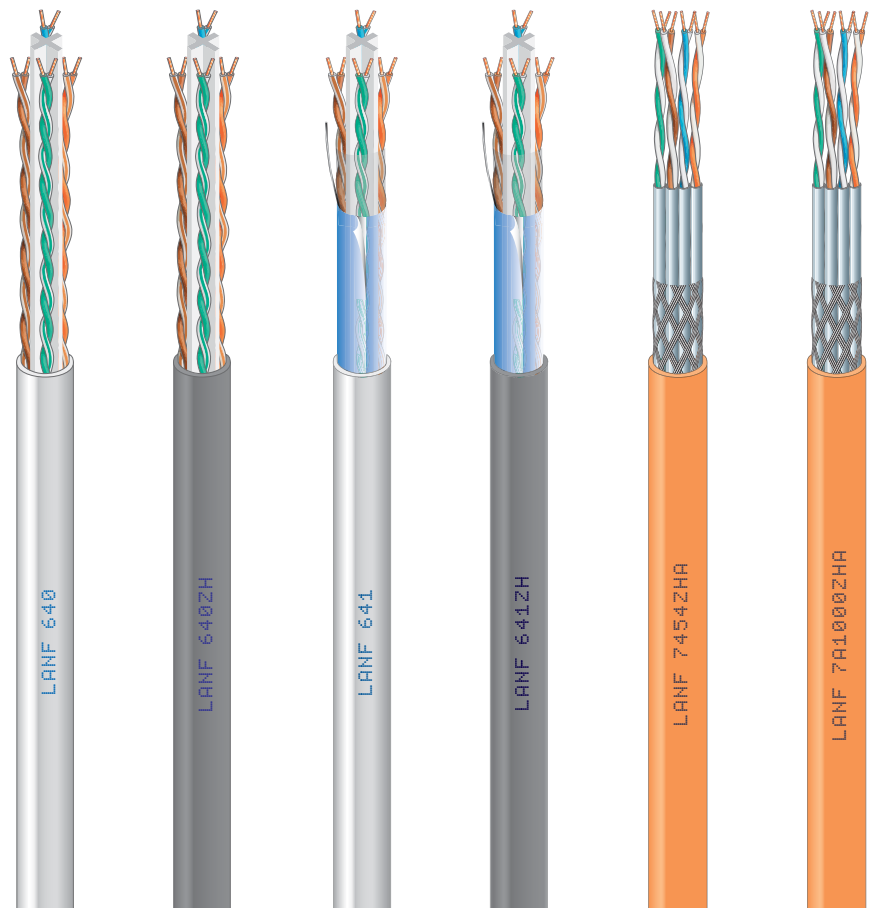
TRANSMISSION CHARACTERISTICS CAT6	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	0.3	25.0	100.0	99.7
@ 10 MHz	MHz	0.9	25.0	80.0	79.1
@ 20 MHz	MHz	1.3	25.0	70.0	68.7
@ 31.5 MHz	MHz	1.6	25.0	65.0	63.4
@ 62.5 MHz	MHz	2.3	25.0	60.0	57.7
@ 100 MHz	MHz	3.0	25.0	60.0	57.0
@ 155.5 MHz	MHz	3.7	20.0	55.0	52.3
@ 200 MHz	MHz	4.4	20.0	55.0	50.6
@ 250 MHz	MHz	4.9	20.0	50.0	45.1
@ 300 MHz	MHz	5.2	20.0	50.0	44.8

TRANSMISSION CHARACTERISTICS CAT 7	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	0.21	25	90	87.9
@ 20 MHz	MHz	0.77	25	85	84.6
@ 62.5 MHz	MHz	1.37	25	80	77.3
@ 100 MHz	MHz	1.74	25	80	66.3
@ 250 MHz	MHz	2.86	25	75	46.9
@ 450 MHz	MHz	3.83	25	70	31.7
@ 600 MHz	MHz	4.48	25	65	20.2
@ 800 MHz	MHz	5.49	16.1	47	16.1
@ 1000 MHz	MHz	6.19	15.1	45	15.1

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LANF 640	500	500	BL	PD500	- / -
LANF 640 ZH	500	500	BL	PD500	- / -
LANF 641 ZH	500	500	BL	PD500	- / -
LANF 645ZH	500	500	BL	PD500	- / -
LANF 6A43 ZH	500	500	BL	PD500	- / -
LANF 7454 ZH	500	500	BL	PD500	- / -

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51



CPR Euroclass	EU 305/2011	-	-	-	-	-	-
CAVEL CODE		LANF 640	LANF 640 ZH	LANF 641	LANF 641 ZH	LANF 7454 ZHA	LANF 7A1000 ZHA
Category		Cat.6 U/UTP	Cat.6 U/UTP	Cat.6 F/UTP	Cat.6 F/UTP	Cat.7 S/FTP	Cat.7 S/FTP
Configuration		4x2xAWG24/7	4x2xAWG24/7	4x2xAWG24/7	4x2xAWG24/7	4x2xAWG24/7	4x2xAWG24/7
Standards		EIA-TIA 568, ISO/IEC 11801, IEC 61156, EN50173-1					
		EN 50288-6-2	EN 50288-6-2	EN 50288-5-2	EN 50288-5-2	EN 50288-4-2	EN 50288-9-2
CONSTRUCTION FEATURES							
Inner conductor	Ø mm	7x0.20 (0.58)	7x0.20 (0.58)	7x0.20 (0.58)	7x0.20 (0.58)	7x0.20 (0.58)	7x0.20 (0.58)
	material	Cu	Cu	Cu	Cu	Cu	Cu
Insulation	Ø mm	1.05	1.05	1.10	1.10	1.35	1.35
	material	PE	PE	PE	PE	PEG	PEG
Shielding		-	-	-	-	S/FTP	S/FTP
Pairs shielding	material	-	-	-	-	Al/Pet	Al/Pet
Tape	material	-	-	Al/Pet	Al/Pet	-	-
Braid	material	-	-	-	-	CuSn	CuSn
Braid optical coverage	%	-	-	-	-	40	70
Outer diameter	size mm	6.80	6.80	7.00	7.60	8.00	8.00
Outer sheath	material	White PVC	Grey LSZH	White PVC	Grey LSZH	Orange LSZH	Orange LSZH
PHYSICAL CHARACTERISTICS							
Copper weight	kg/km	17.3	17.3	18.1	18.1	22.3	29.6
Cable weight	kg/km	45.4	48.1	52.3	55.1	65.0	70.0
Minimum bending radius 1/n	mm	34/68	34/68	38/76	38/76	40/80	40/80
Max. tensile strength	N	100	100	100	100	150	150
ELECTRICAL CHARACTERISTICS							
Impedance @100 MHz	Ohm	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5	100 ± 5
Velocity of propagation	%	67	67	67	67	77	77
Transfer impedance (Zt)							
1 MHz	mΩ/m	-	-	< 35	< 35	< 15	< 15
10 MHz	mΩ/m	-	-	< 41	< 41	< 10	< 10
30 MHz	mΩ/m	-	-	< 110	< 110	< 30	< 30
100 MHz	mΩ/m	-	-	< 150	< 150	< 100	< 100
Shielding efficiency (SA)							
@ 30 ÷ 100 MHz	dB	-	-	> 50	> 50	> 80	> 85
@ 100 ÷ 1000 MHz	dB	-	-	-	-	-	> 75
DC resistance of inner/outer conductor	Ohm/km	85	85	85	85	85	85
Loop resistance	Ohm/km	170	170	170	170	170	170
Insulation resistance (500V)	MΩh/km	> 5000	> 5000	> 5000	> 5000	> 5000	> 5000
Sheath insulation voltage (1 min DC)	kV	1	1	1	1	1	1

LAN cables | Multi-Core and Double Sheath

LAN SPECIAL CABLES SERIES - ON RICHIESTA

Applications

Primary (Campus), Secondary (Riser), Tertiary (Horizontal), IEEE 802.3; 10Base-T; 100Base-T; 1000Base-T, IEEE 802.5 16 MB; ISDN; TPDDI; ATM; PoE; PoE+

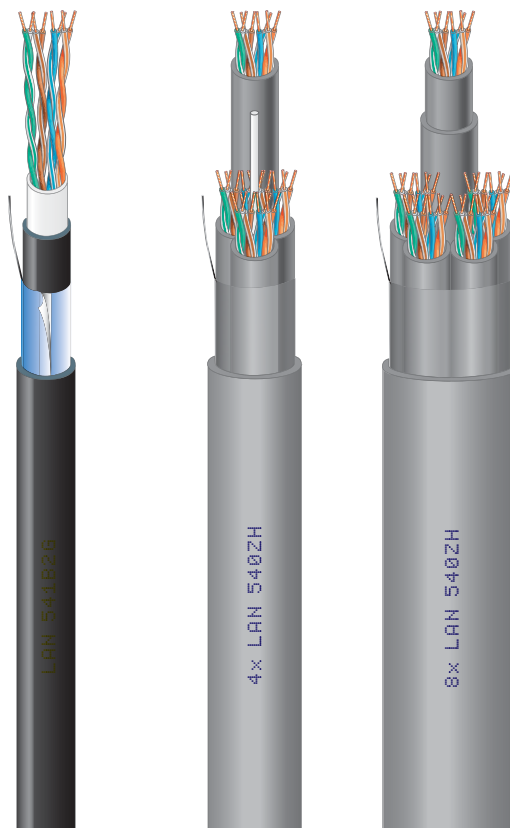
Special LAN cables are characterised by the presence of a double sheath, which makes them particularly suitable for installations in specific conditions, such as underground conduits subject to flooding risk. They are flexible cables composed of a LAN cable or multiple LAN cables (4-8). Available on request.

STANDARD PACKAGING					
Cable model	Unit size (m)	Unit packaging (m)	Packaging*	Packaging model**	Suitable for CABLEBOX
LAN541B2G	500	500	BL	PD500	-
4xLAN540ZH	500	500	BL	WD500	-
8xLAN540ZH	300	300	BL	WD300	-

* SP = Shrink Pack BP = Plastic reel BL = Wooden reel

** Details on page 51

LAN CAT 5e CABLES					
TRANSMISSION CHARACTERISTICS	@20°C	ATT. dB/100 m	RL dB	NEXT 100 m	ACR dB/100 m
@ 1 MHz	MHz	1.9	20.0	71.0	69.1
@ 10 MHz	MHz	6.0	25.0	56.0	50.0
@ 20 MHz	MHz	8.5	25.0	51.0	42.5
@ 31.2 MHz	MHz	10.7	24.0	49.0	38.3
@ 62.5 MHz	MHz	15.7	22.0	44.0	28.3
@ 100 MHz	MHz	19.8	20.0	41.0	21.2



CPR Euroclass	EU 305/2011	-	-	-
CAVEL CODE		LAN541B2G	4xLAN540ZH	8xLAN540ZH
Category		Cat.5e F/UTP	Cat.5e U/UTP	Cat.5e U/UTP
Configuration		4x2xAWG24/1	4x(4x2xAWG24/1)	8(7+1)x(4x2xAWG24/1)
Standards		EIA/TIA 568A; EN 50173; EN 50288-3-1; IEC 61156-5; ISO/IEC 11801 2nd ed		
Fire reaction	LSZH	n.a.	IEC 60332-1; IEC 60754-2; IEC 61034	
CONSTRUCTION FEATURES				
Inner conductor	Ø mm	0.51	0.57	0.57
	material	Cu	Cu	Cu
Insulation	Ø mm	1.00	1.45	1.35
	material	PE		
Shielding		S/FTP	S/FTP	S/FTP
Pairs shielding	material	Al/Pet	Al/Pet	Al/Pet
Outer diameter	size mm	8.00	8.50	8.00
Outer sheath	material	LSZH	LSZH	LSZH
PHYSICAL CHARACTERISTICS				
Copper weight	kg/km	16.1	29.9	24.4
Cable weight	kg/km	47.5	63.3	66.4
Minimum bending radius 1/n	mm	20/40	50/100	40/80
Max. tensile strength	N	100	150	150
ELECTRICAL CHARACTERISTICS				
Impedance @100 MHz	Ohm	100 ± 5	100 ± 5	100 ± 5
Velocity of propagation	%	69	77	77
Transfer impedance (Zt)				
1 MHz	dB	< 22	< 5	< 5
10 MHz	dB	< 10	< 3	< 3
30 MHz	dB	< 26	< 3	< 3
Shielding efficiency (SA)				
@ 30 ÷ 100 MHz	dB	> 50	> 80	> 70
DC resistance of inner/outer conductor	Ohm/km	95	75	75
Loop resistance	Ohm/km	190	150	150
Insulation resistance (500V)	MOhm/km	> 2000	> 5000	> 5000
Sheath insulation voltage (1 min DC)	kV	3	1	1

Cablebox | Eco-friendly cable dispenser

The concept of recycling is increasingly considered a value to be pursued. This is why CAVEL has developed CABLEBOX, with the aim of reducing waste. CABLEBOX consists of a housing that contains a reel. This can be easily opened and divided into two parts. All parts are made of a highly impact- and wear-resistant plastic material. The CAVEL cable coil is placed on the reel.

Two CABLEBOX versions are available: DS100 for small coils (100, 150 and 250 m) and DS250 for larger coils (200, 250, 300 and 400 m), depending on the cross-section of the chosen product.

CABLEBOX units are easily transportable, as they are equipped with a handle and a shoulder strap. This solution is particularly safe for installers, allowing them to move with both hands free.

The cable is always unwound perfectly straight, without ever getting tangled or taking on the typical helical shape, which is inconvenient and must be corrected when the cable is inserted into the conduits. This is even more noticeable when installing bundled cables.

Rewinding excess cable is also easy, thanks to the ergonomic shape and the simple access to the central hole of the reel. The sheath of the vast majority of our cables features a decreasing metre marking, with numbering adapted to each coil length (e.g. from 99 to 0 for 100 m coils). This allows the remaining cable length on the coil to be easily checked at any time. Using the CABLEBOX packaging system minimises waste, as each coil generates only a few grams of recyclable material for disposal, and offers the following advantages:

- facilitates installation operations
- reduces costs and effort
- protects the environment
- improves safety

With traditional systems, a single pallet with 12 km of cable results in 48 used wooden reels or 120 unnecessary plastic reels. With CABLEBOX, instead of a pallet with 14.4 km of cable, only a few hundred grams of recyclable paper and plastic are discarded!

▼ QR CODE: WEBSITE PAGE DEDICATED TO CABLEBOX



mod. DS100 – For 100, 150 and 250 m coils

mod. DS250 – For 200, 250, 300 and 400 m coils



Green packaging systems



mod. S100M - 6x100m coils in heat-shrink packaging in box = 600m
mod. S150M - 6x150m coils in heat-shrink packaging in box = 900m
mod. S200M - 6x200m coils in heat-shrink packaging in box = 1200m

Suitable for Cablebox DS100



mod. S100L - 2x100m coils in heat-shrink packaging in box = 200m
mod. S150L - 2x150m coils in heat-shrink packaging in box = 300m
mod. S250L - 2x250m coils in heat-shrink packaging in box = 500m
mod. S400L - 2x400m coils in heat-shrink packaging in box = 800m

Suitable for Cablebox DS250



mod. R100S - 5x100m in plastic reels in box = 500m



mod. R100M - 5x100m in plastic reels in box = 500m

Suitable for Cablebox DS100



mod. R100L - 2x100m in plastic reels in box = 200m
mod. R150L - 2x150m in plastic reels in box = 300m
mod. R200L - 2x200m in plastic reels in box = 400m
mod. R250L - 2x250m in plastic reels in box = 500m

Suitable for Cablebox DS250



mod. R500XL - 1x500m in plastic reels in box = 500m



mod. PD - plywood reels



mod. WD - wooden reel, for long lengths

Connectors and adapters for coaxial cables

CRIMP-TYPE	
F	
SCREW-ON	
F	
COMPRESSION-TYPE	
F	FC Easy Mate and Quick Mount: no need to strip back the braid
BNC	
IEC outdoor	
TOOL-LESS (NO TOOLS REQUIRED)	
F manual	"Push On" series with gasket and reusable for 5, 6 and 6.6 mm cables
IEC indoor	
DISPLAY UNIT	
C-BOX	Display unit for jars of CAVEL connectors.
INDOOR ADAPTERS AND COUPLERS	
Adapters	
Couplers	

Accessories



COT05

COMPRESSION TOOL

multi-purpose with interchangeable inserts
suitable for BNC and F connectors



CABLE STRIPPING TOOL

CS00 multi-purpose for cables from 5 to 7mm

CS03J suitable for RG59B/U and triple-shielded cables

CS17VP suitable for 17PAAtC (PE sheath)

CS41 for microcoaxial CW41S and VSHD40

CS70 for DG70 and DG70C cables

CS17-CS22-CS27-CS34

Each model dedicated to a specific distribution cable.



COT02

COMPRESSION TOOL

suitable for F connectors



CRIMPING TOOL

suitable for F connectors

CRT03 0262 - 0324

CRT04 0324 - 0360

CRT05 0324 - 0475

CRT06 0360 - 0475



CK11

CONNECTOR TOOL

Suitable for all F connectors
with hexagonal head, 11mm size



MT04

MOUNTING TOOL

Facilitates insertion of F connectors
during cable termination.



FC02

SCISSORS

For the preparation of all coaxial cables



FC03

LUB01 Lubri Cavel

LUBRICANT

1L bottle of water-based lubricant
(environmentally friendly and safe
for installers).

Reduces friction during installation
in conduits, stable up to +82°C,
freezes at -5°C



Appendices

CROSS-REFERENCE TABLE - COAXIAL CABLES, CONNECTORS AND TOOLS

TOOLS AND CONNECTORS FOR INDOOR INSTALLATION						COMPRESSION TOOLS AND CONNECTORS FOR OUTDOOR INSTALLATION						
CABLE	Cable Stripper	Conn. F screw-on	Conn. F crimp-type	Crimping tools CRT	Conn. IEC no tools IECM-IECF	Conn. F "Push On" compr.-type FCP0 Manual	Conn F "Easy Mate" and "Quick Mount" compr.-type FCEM-FC-QM	compr. tool COT	BNC compr. connectors BNCC	BNC compr. tool COT	Conn IEC compr. IECF-IECM	compr. tool IEC: COT
11/50FC	(FC02)	FA125	F125A	-04BL	-5.1C; -90C	-	-EM7.0C -7.00M	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
17/73FC	CS17	FA17/73	F163	-05BL	-	-	-11QM	-02BL	-	-	-	-
17PA1C	CS17VP	FA17	F703	-03-04-05 BL	-5.1C; -90C	FCP05.1C	-EM7.0C -7.00M	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
CW41S	CS41	-	F41	-03BL	-	-	-	-	-	-	-	-
DG70 -C	CS70	FA70	F70	-03-04-05 BL	-	-	-	-	-3.3C; -70	-	-	-
DG80 -C -ZH	CS00	FA501	F501	-03-04-05 BL	3.9C, -905C	FCP03.9C	-501 -EM5.0C	-05-02 BL	-3.9C; -501	-04 -05BL	-	-05BL
DG100	CS00	FA602	-	-	-	FCP04.7C	-	-	-	-	-	-
DG113 -C -ZH	CS00	FA703	F703	-03-04-05 BL	-5.1C; -90C	FCP05.1C	-703C -703 -EM7.0C	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
DG163 -ZH	CS17	FA17/73	F163	-05BL	-	-	-11QM	-02BL	-	-	-	-
CATV11	CS17	FA17/73	F163	-05BL	-	-	-11QM	-02BL	-	-	-	-
RP55B	CS00	FA501	-									
RP65B	CS00	FA703	F703	-03-04-05 BL	-5.1C; -90C	FCP05.1C	-EM7.0C -7.00M	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
RP913B -ZH -PE	CS00	FA703	F703	-03-04-05 BL	-5.1C; -90C	FCP05.1C	-EM7.0C -7.00M	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
SAT501 -N	CS00	FA501	F501	-03-04-05 BL	3.9C, -905C	FCP03.9C	-501 -EM5.0C	-05-02 BL	-3.9C; -501	-04 -05BL	-	-05BL
SAT602	CS00	FA602	-	-	-	FCP04.7C	-	-	-	-	-	-
SAT703-2G	CS00	FA703	F703	-03-04-05 BL	-5.1C; -90C	FCP05.1C	-703C -703 -EM7.0C	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
SAT703B -N -ZH	CS00	FA703	F703	-03-04-05 BL	-5.1C; -90C	FCP05.1C	-703C -703 -EM7.0C	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
SAT752F	CS00	FA703	F703	-03-04-05 BL	-5.1C; -90C	FCP05.1C	-703C -703 -EM7.0C	-02-05 BL	-5.1C, -703	-04 -05BL	-C703	-05BL
TS613B -C	CS03J						-EM7.0C -7.00M	-02-05 BL				
TS713B -C	CS03J						-EM7.0C -7.00M	-02-05 BL				
ACCESSORIES FOR CABLE CONNECTORS FOR DIRECT BURIAL AND OUTDOOR INSTALLATION												
CABLE	STRIPPER		F		IEC		N		5/8"		3.5/12"	
11/50FC	-		FM-21		-		-		-		-	
17/73FC	CS17		FM-TL232		IEC14M-32		NM-32		5/8MU-TL232		3.5/12M-TL232	
22/99FC -ZH	CS22		FM-TL313		IEC14M-13		NM13		5/8MU-13		3.5/12M-TL313	
27/115FC	CS27		FM-TL444		IEC14M-44		-		5/8MU-44		3.5/12MU-44	
34/145FC	CS34		FM-TL646		IEC14M-46		-		5/8MU-46		3.5/12MU-46	
CATV11	CS17		FM-TL232		IEC14M-32		NM-32		5/8MU-TL232		3.5/12M-TL232	
DG125	-		FM-21		-		-		-		-	
DG163 -ZH	CS17		FM-TL232		IEC14M-32		NM-32		5/8MU-TL232		3.5/12M-TL232	
RG11FC	CS17		FM-TL232		IEC14M-32		NM-32		5/8MU-TL232		3.5/12M-TL232	

A SPECIAL ONLINE UTILITY FOR FINDING TOOLS AND CONNECTORS

The new CAVEL website (www.cavel.it) features a search engine by code or product type. Once you have accessed the cable specifications and the relevant product page, you can use a configuration with 5 menus located below the page to access a wide range of useful details related to the cable accessories, such as:

- the types of standard packaging available and their codes;
- the compatible cable stripper;
- a wide range of connectors, divided into sub-menus for indoor and outdoor installation (or both), with links to the appropriate tools where required (crimping tools, compression tools, etc.);
- adapters
- additional installation tools.

USEFUL INFORMATION ON THE CPR STANDARD

What is CPR? (EU Directive No. 305/2011)

The Construction Products Regulation (CPR) is a European Directive that applies across all Member States of the European Union to products intended to be permanently incorporated into construction works.

For cables used for the transmission of electricity and communication, whether with metallic conductors or optical fibre, it has been in force since 1 July 2017.

The CPR introduces a harmonised technical language and uniform assessment methods to define cable performance in terms of reaction to fire.

Product compliance with the Regulation is governed by Standard EN 50575, which specifies the test methods and evaluation criteria, and it is ensured through the Declaration of Performance (DoP), which each manufacturer must issue for each product following certification by a Notified Body, and through CE marking, which confirms conformity with the safety requirements set out by the applicable regulations and directives.

The manufacturer must also implement a system for Assessment and Verification of Constancy of Performance (AVCP)

Requirements for cables under CPR

The European Commission has identified, among the seven basic requirements for construction works, the following as applicable to cables: requirement no. 2 "Safety in case of fire" and requirement no. 3 "Hygiene, health and the environment".

To comply with requirement no. 2, cables must be classified according to the harmonised fire reaction classes provided for by EN 50575.

Compliance of cables with requirement no. 3 is achieved by meeting the requirements of the RoHS Directive (2011/65/EU as amended) and the REACH Regulation (1907/2006/EC) and is declared in the CE marking.

The construction works must be carried out in such a way that, in the event of a fire:

- The generation and spread of fire and smoke within the works are limited.
- The spread of fire to neighbouring structures is limited.
- The occupants can evacuate the structures or be rescued.
- A high degree of safety is guaranteed to the rescue teams.

Standard EN 50575 classifies fire reaction characteristics of cables according to the following parameters:

- Fire reaction class, ranging from Aca to Fca with decreasing performance ("ca" stands for "cable").
- Smoke production, ranging from s1a to s3 with decreasing performance.
- Release of flaming particles that can spread the fire, ranging from d0 to d2 with decreasing performance.
- Acidity of the fumes emitted, which poses a danger to people and things present, ranging from a1 to a3 with decreasing performance.

In practice, communication cables can be classified as shown in the following table:

CLASSIFICATION, USE AND PERFORMANCE ASSESSMENT ACCORDING TO EU DIRECTIVE 305/11					
Class	B2ca s1a,d1,a1	Cca s1a,d1,a1	Dca s2,d2,a1	Eca	Fca
Fire reaction performance	★★★★	★★★	★★	★	
Fire risk	High	Medium-high	Medium	Low	
Classification of environments according to IEC 60364-5-51	BD4	BD3	BD2	BD1	
Installation type	In bundle		In bundle	-03BL	
Installation locations	Environments characterised by high population density and difficult evacuation conditions	Environments characterised by high population density and easy evacuation conditions	Environments characterised by low population density and difficult evacuation conditions	Environments characterised by low population density and easy evacuation conditions	Outdoor installation
Examples	Airports, railway stations, seaports, underground railways, road and rail tunnels	Healthcare facilities, cinemas, theatres, hotels, gyms, schools, museums, shopping centres, offices with a high number of people, buildings with a fire height of more than 24 m	Medical practices, restaurants, bars, workshops, offices, buildings with a fire height of less than 24 m	Shops, residential buildings with fire height of less than 12 m	
AVCP system	1+		3		4 (SELF-CERTIFICATION)

COAXIAL CABLE CONSTRUCTION TECHNOLOGIES

GAS INJECTED dielectric

This definition indicates the technology used to produce the dielectric in Coaxial cables. It uses nitrogen injection to expand the polyethylene, in order to reduce the dielectric size while maintaining the same capacitance as the solid version, to make the cables slimmer and more flexible while maintaining the required electrical characteristics and improving their mechanical performance.

SKIN-FOAM-SKIN

In order to reduce the progressive degradation over time of the dielectric, mainly due to humidity, ITALIANA CONDUTTORI uses the INTERNAL SKIN-FOAM-EXTERNAL SKIN configuration for its foam coaxial cables.

In contact with the inner conductor there is a layer of solid dielectric (INTERNAL SKIN), as there is on the outside of the dielectric (EXTERNAL SKIN).

The first has the purpose of:

- bonding the dielectric to the central conductor;
- acting as a barrier against humidity penetrating longitudinally and causing oxidation;
- maintaining coaxiality during bending and therefore ensuring stable electrical characteristics.

The second has the purpose of:

- acting as a humidity barrier for the dielectric, which is normally porous;
- providing a higher regular surface for the outer conductor, which may be bonded (for tape constructions).

PIB protection

The PIB (Polyisobutylene or JELLY) protection system provides an additional barrier against moisture and ensures exceptional long-term stability of attenuation in coaxial cables.

Sheaths

Italiana Conduttori coaxial cables are supplied with the following types of sheath materials:

PVC (Polyvinyl chloride)

Operating temperatures: -20/+70°C

Characteristics:

- non flame- and fire-propagating;
- non.migrating;
- suitable for indoor installation.

PE (Polyethylene)

Operating temperatures: -40/+80°C

Characteristics:

- UV resistant;
- suitable for outdoor and direct burial installation.

LSZH, LSZH-FR and LSZH-FR+ (Low Smoke, Zero Halogens)

Operating temperatures: -20/+80°C

Characteristics:

- non flame- and fire-propagating;
- low smoke emission and no halogen gases (increased safety in the event of fire and evacuation)
- UV resistant;
- suitable for indoor and outdoor installation;
- achieves high fire reaction classes (up to B2ca);

The thickness and physical characteristics of the sheaths also make the cables suitable for coexistence in conduits with power cables up to 400 V (CEI-UNEL 36762 Standard).

UNKNOWN ATTENUATION CALCULATION OF COAXIAL CABLES

The following formula allows for an approximate calculation of cable attenuation values at frequencies between those indicated in the catalogue (acceptable deviations are +/- 20% from the known attenuation frequency)

$$A_x = A \sqrt{\frac{f_x}{f}}$$

A_x = attenuation to be calculated

A = known attenuation

f_x = frequency at which attenuation is to be calculated

f = frequency of known attenuation

$$A_x = 18.5 \times \sqrt{\frac{900}{1000}} = 17.55$$

SHIELDING EFFICIENCY OF COAXIAL CABLES

SHIELDING EFFICIENCY TABLE (ACCORDING TO EN50117 UP TO 3000 MHZ)					
Frequency range (MHz)	Unit of measurement	Class A++ (dB)	Dca s2,d2,a1 (dB)	Eca (dB)	Fca (dB)
5 ÷ 30	Zt (mOhm / m)	< 0.9	< 2.5	< 5	< 15
30 ÷ 1000	SA (dB)	< 105	< 95	< 85	< 75
1000 ÷ 2000	SA (dB)	< 95	< 85	< 75	< 65
2000 ÷ 3000	SA (dB)	< 85	< 75	< 65	< 55

LEGEND OF SYMBOLS, ACRONYMS AND FORMULAS

ACR	signal-to-noise ratio	Pet	polyester
Al	aluminium	PJ	(Petrol Jelly) petroleum jelly filling
AP	Al-polyester	PVC	polyvinyl chloride
APA	Al-polyester-Al	PVCII	Non-migrating PVC
APAS	Al-polyester-Al-surlin (adhesive)	LSZH-FR	Flame-retardant compound Low smoke emissions and zero halogen
AWG	American Wires Gauge	LSZH-FR+	Flame-retardant compound Low smoke emissions and zero halogen
Cu	copper	N	Newton (approx. 0.1 kg)
Cu/Pet	copper/polyester	n.a. - n.c.	not applicable - not classifiable
CuSn	tinned copper	RG11	Ø 1.63 / 7.20 mm
FeCu	copper-clad steel	RG59EU	Ø 0.80 / 3.50 mm
FeZn	galvanised steel	RG6	Ø 1.00 / 4.60 mm
LSZH	zero halogen sheath	RG6EU	Ø 1.00 / 4.80 mm
N	Newton (approx. 0.1 kg)	RG6+	Ø 1.13 / 4.80 mm
NEXT	crosstalk	SA	Screening Attenuation
PE	polyethylene	ZT	Transfer Impedance (Ti)
PEG	gas-injected expanded polyethylene (physical)		

LIMITATION OF LIABILITY

Italiana Conduttori s.r.l., with the aim of continuously improving the products illustrated in this catalogue, reserves the right to make changes without prior notice.

The coaxial cables illustrated in this catalogue are to be used exclusively for the purposes for which they have been designed, i.e. for the reception and distribution of audio, video and data signals.

Any other use is to be considered inappropriate and will require our specific authorisation.

We shall not be held responsible for any issues or damage arising from improper, incorrect or unreasonable use.

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