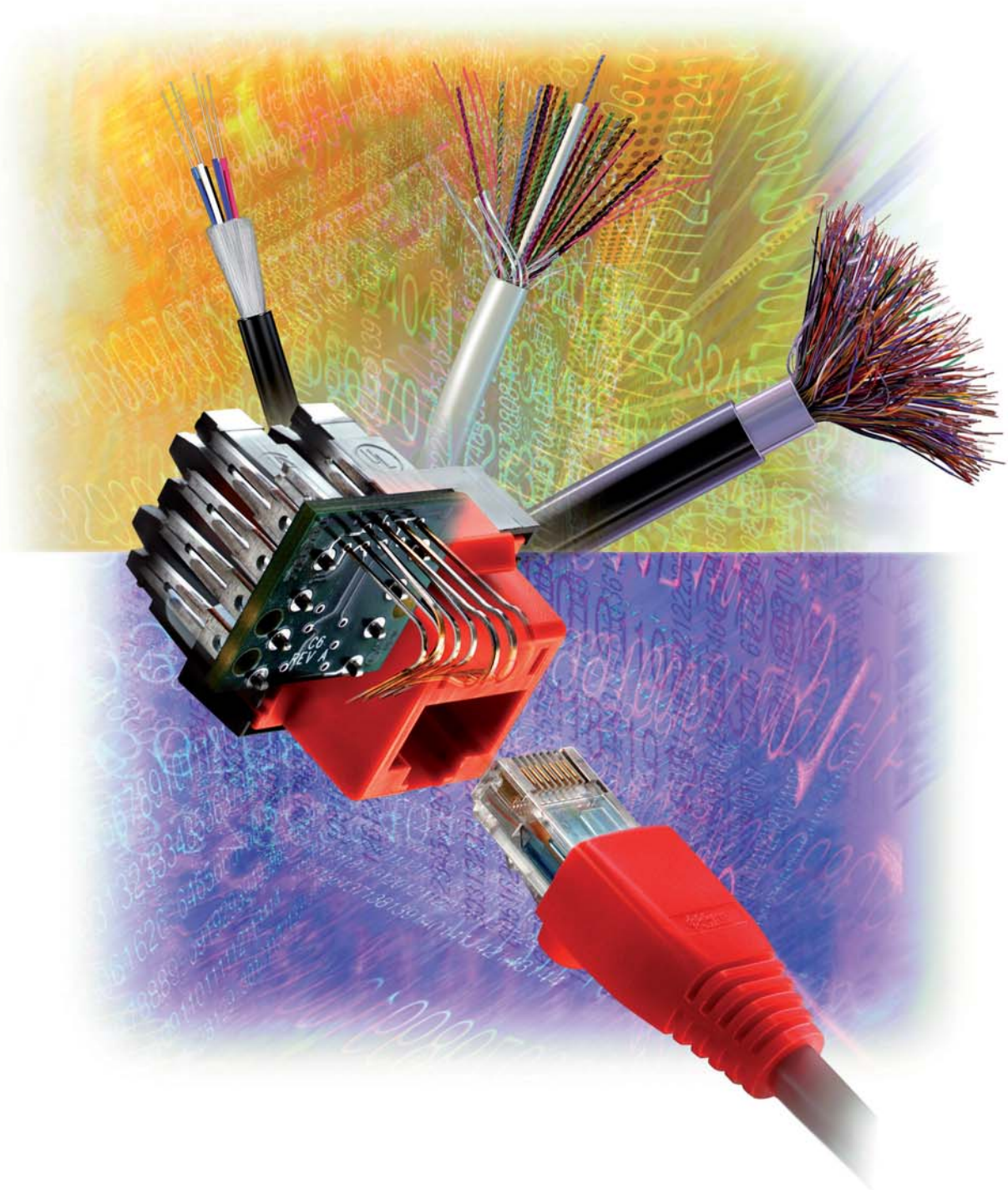
General Cable

STRUCTURED CABLING SYSTEM

Jetlan



COMMUNICATION CABLES

CABICTEL

One of the world's biggest companies in the sector

General Cable is a world leader in cable manufacture. The company has modern production facilities in North America, Europe and Oceania, employing more than 7 000 people throughout the world.

With a tradition lasting a hundred years, General Cable is one of the big historical companies of the sector, and through its activity it has contributed and still contributes decisively to the progress of society and to the improvement of the quality of life of people.

General Cable's range of cables is very broad and goes from energy to telecommunication cables, including electric, construction, data transmission, instrumentation, control and special cables, as well as high voltage cables. The sales of the Company are distributed throughout the world, based on three large geographic regions: North America, Europe and Oceania.

General Cable's strategy is based on three main principles: the Power of One (the capacity to become a supplier which meets all the needs of its customers), an excellent service for these customers and continuous improvement of productivity.

General Cable likewise bases its activities on a series of corporate values which guide all of its operations: customer satisfaction as an absolute priority; integrity in all of its actions; considering people as the main source of value; teamwork as a path to excellence; speed of delivery as a competitive advantage; and continuous improvement as a constant objective.

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Edition: May 2008

JetLan5+

25 years of JetLan cabling system

The Guarantee programme covers all General Cable Data Transmission Systems that accept the following norms and their standards: ANSI/EIA/TIA 568B1, ANSI/EIA/TIA 568B2, ANSI/EIA/TIA 568B3, ISO 11801, CENELEC EN50173 and ANSI/EIA/TIA 568B2-1. For this reason we can guarantee the design and performances of Linkage and Channelling for any full installation made with our Copper and Fibre Optic cables and components for a period of 25 years.

This guarantee is offered on installations carried out and checked in accordance with the terms and conditions specified in the JetLan Guarantee document which is given to the installation property through the JetLan system's Certified Installers or Integrators.

Through its guarantee programme, General Cable Sistemas, S.A. aims to be able to offer the most up-to-date information and constant training to all JetLan System Certified Installers or Integrators through courses and seminars.

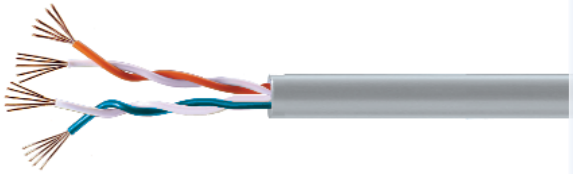
Jetlan5+

General Cable

UTP patchcable Cat 5 (1 or 2 pairs, PVC sheath)

ANSI/TIA/EIA 568A (Cat 5), ISO / IEC 11801, EN 50173

These indoor cables are used in the manufacture of patchcords. They provide excellent characteristics for voice and data transmission in agreement with Category 5 requirements.



CONSTRUCTION

Conductor	24 AWG (7x0,194 mm) stranded bare Copper
Insulation	Polyolefin (PE)
Pairing	Varying short pair lay-length
Sheath	Blue (RAL 5015) PVC (other colours under special order)

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100Base-VG-AnyLan
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100Base-T (IEEE 802.3)
- 55/155 Mbps ATM

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,2
Characteristic impedance (Ohm)		(min-max)
Value at	772 kHz	87 - 117
	1.0 - 200 MHz	85 - 115
Return Loss (RL)	dB (min)	
Value at	1.0 - 10 MHz	23
	10 - 100 MHz	16-10 log(f/100)
External diameter (mm)		3,05 (1 Pair) - 3,8 (2 Pairs)
Weight (kg/km)		11 (1 Pair) - 18 (2 Pairs)
Minimum bending radius		4 x External diameter = 12 mm (1Pair) 4 x External diameter = 15 mm (2 Pairs)
Installation temperature (ºC)		- 20 / +50
Operating temperature (ºC)		- 20 / +60

COLOUR CODE

Pairs	Colour combination	
1	white ☐■ blue	■ blue
2	white ☐■ orange	■ orange

Frequency MHz	Attenuation Max dB/100m	NEXT (2 pares) dB (min)
0,772	2,3	63
1	2,5	62
4	4,7	53
8	6,7	48
10	7,5	47
16	9,5	44
25	12	41
31,25	13,5	40
62,5	19,5	35
100	25,1	32

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
550001DAZP	1/24	PVC, Azul	Spools 500 / 1.000 m
550002DAZP	2/24	PVC, Azul	Spools 500 / 1.000 m

500m 1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan5+

General Cable

Category 5e UTP 25 pairs solid cable with PVC or LSZH sheath (IEC 60332-1)

PVC: IEC 60332-1, UNE-EN 50265-2-1. LSZH: UNE-EN 50268-1, UNE-EN 50267-2-1, ANSI/TIA/EIA 568, ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These pair cables present Gigabit Ethernet transmission characteristics, with properties at 100 MHz beyond the Enhanced Category 5 (Cat 5e) requirements.

CONSTRUCTION

Conductor	24 AWG (0,51 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	25 pairs with varying short lay lengths, stranded
Sheath	Standard type: Grey PVC LSZH type: Grey thermoplastic LSZH material

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000 BASE-T (Gigabit Ethernet)

1000m

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at	1-100 MHz	85-115
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		45
External diameter (mm)		12
Weight (kg/km)		213,7

Frequency MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	Return Loss dB (min)
0,772	1,8	67,0	64,0	63,0	60,0	–
1	2,0	65,3	62,3	61,0	58,0	20,0
4	4,1	56,3	53,3	49,0	46,0	23,0
8	5,8	51,3	48,3	42,0	39,9	24,5
10	6,5	50,3	47,3	41,0	38,0	25,0
16	8,2	47,3	44,3	36,9	33,9	25,0
20	9,3	45,3	42,3	34,9	31,9	25,0
25	10,4	44,3	41,3	33,0	30,0	24,3
31,25	11,7	42,9	39,9	31,0	28,0	23,6
62,5	17,0	38,4	35,4	25,1	22,1	21,5
100	22,0	35,3	32,3	21,0	18,0	20,1

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging	Spool type
668625CC4P	25/24	PVC, Grey	1,000m reels	09
668725CVDP	25/24	LSZH, Green	1,000m reels	09

COLOUR CODE

Pairs	Conductor A	Conductor B
1	white	blue
2	white	orange
3	white	green
4	white	brown
5	white	grey
6	red	blue
7	red	orange
8	red	green
9	red	brown
10	red	grey
11	black	blue
12	black	orange
13	black	green
14	black	brown
15	black	grey
16	yellow	blue
17	yellow	orange
18	yellow	green
19	yellow	brown
20	yellow	grey
21	violet	blue
22	violet	orange
23	violet	green
24	violet	brown
25	violet	grey

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Connecting system 110

The connecting system proposed by General Cable is a flexible, reliable and economical solution for the installation of a telephony system. Systems 110 are used to connect / structure communication installations at the main distribution boards or consolidation points. Specifically, systems 110 are used with voice and data applications in cases where the restricted space prevents the use of a rack or when a low cost solution is required together with the modularity of a distribution panel.

110 WIRING BLOCKS

Prepared for direct installation on walls (with legs) or applied on a metallic plate for 19" racks. Available with 50 or 100 pairs and with cable management system (with or without legs).

ORDERING INFORMATION

Code	Description	(un./box)
CSBM50N99P	Installation support for 50 pairs	1
CSBM50S99P	Installation support for 50 pairs with legs	1
CSBM10N99P	Installation support for 100 pairs	1
CSBM10S99P	Installation support for 100 pairs with legs	1
CSORGCN99P	Cable organizer	1
CSORGCS99P	Cable organizer with legs	1

110 CONNECTION BLOCKS

The General Cable 110 connection blocks are used in the termination of 22 to 26 AWG cables in 110 wiring blocks. They have IDC contacts and exist with 4 or 5 pairs.

ORDERING INFORMATION

Code	Description	(un./box)
CSBC00499P	Connection blocks (4 pairs)	20
CSBC00599P	Connection blocks (5 pairs)	20

KIT FOR INSTALLATION IN "RACKS"

Designed for installation in 19" racks. Panels in special Steel (colour - black).

ORDERING INFORMATION

Code	Description	(un./box)
CSBP10N99P	19" panel with 2 blocks of 50 1U pairs	1
CSBP20N99P	19" panel with 2 blocks of 100 1U pairs	1
CSORGCP99P	19" panel with 2 IU cable organizers (without legs)	1

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PATCHCORDS

Modular 8-point patchcords 110 to 110 and 110 to RJ45 offer modularity and rapid connections in 110 connection blocks.

ORDERING INFORMATION

	Code	Cords 110 CROSS CONNECT	(un./box)
Patchcords 1 pair	CSL110199P	110/110 de 1m	10
	CSL110299P	110/110 de 2m	10
	CSL110399P	110/110 de 3m	10
	CSL110499P	110/110 de 4m	10
	CSL110599P	110/110 de 5m	10
	CSLM10199P	110/RJ45 de 1m	10
	CSLM10299P	110/RJ45 de 2m	10
	CSLM10399P	110/RJ45 de 3m	10
	CSLM10499P	110/RJ45 de 4m	10
	CSLM10599P	110/RJ45 de 5m	10
Patchcords 2 pairs	CSL120199P	110/110 de 1m	10
	CSL120299P	110/110 de 2m	10
	CSL120399P	110/110 de 3m	10
	CSL120499P	110/110 de 4m	10
	CSL120599P	110/110 de 5m	10
	CSLM20199P	110/RJ45 de 1m	10
	CSLM20299P	110/RJ45 de 2m	10
	CSLM20399P	110/RJ45 de 3m	10
	CSLM20499P	110/RJ45 de 4m	10
	CSLM20599P	110/RJ45 de 5m	10

ORDERING INFORMATION

	Code	Cords 110 CROSS CONNECT	(un./box)
Patchcords 3 pairs	CSL130199P	110/110 de 1m	10
	CSL130299P	110/110 de 2m	10
	CSL130399P	110/110 de 3m	10
	CSL130499P	110/110 de 4m	10
	CSL130599P	110/110 de 5m	10
	CSLM30199P	110/RJ45 de 1m	10
	CSLM30299P	110/RJ45 de 2m	10
	CSLM30399P	110/RJ45 de 3m	10
	CSLM30499P	110/RJ45 de 4m	10
	CSLM30599P	110/RJ45 de 5m	10
Patchcords 4 pairs	CSL140199P	110/110 de 1m	10
	CSL140299P	110/110 de 2m	10
	CSL140399P	110/110 de 3m	10
	CSL140499P	110/110 de 4m	10
	CSL140599P	110/110 de 5m	10
	CSLM40199P	110/RJ45 de 1m	10
	CSLM40299P	110/RJ45 de 2m	10
	CSLM40399P	110/RJ45 de 3m	10
	CSLM40499P	110/RJ45 de 4m	10
	CSLM40599P	110/RJ45 de 5m	10

VOICE PATCHPANEL

25 and 50 port voice patchpanel with 19" 1U RJ45HD active pins 3-6/4-5. IDC connection type KATT.
Applications: Basic telephony, ISDN, ADSL

ORDERING INFORMATION

Code	Voice patchpanel	(un./box)
CU5PP50NGP	50 port panel	1
CU5PP25NGP	25 port panel	1

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Jetlan5+

General Cable

JetLan5e+

JetLan is the only structured cabling system that includes all the passive components required for the installation or adaptation of your data network, as we include all the different types of high performance cables, the associated components and the tools needed for its installation. They all satisfy high quality levels, above the last Specifications and the industry requirements, and constitute a perfect integrated system. Our leadership in the American market during the last years results from the application of advanced technologies, which have been transferred to our production at the Morelena plant, in Portugal.

JetLan5e+ is our structured cabling solution for Enhanced Category 5 (Cat 5e), and it should be noted that the transmission quality obtained in a link with our system is above the requirements for this Category. This difference is reflected in the certificates from independent laboratories.

This system offers excellent data transmission characteristics, with values of attenuation and other parameters at 200 MHz much above the cables available in the market for this Category.

JetLan5e+ includes the largest range of components in the market:

- pair cables, unscreened (UTP) or screened (FTP), with different types of sheath (PVC, LSZH) and according to IEC 60332-1 or 60332-3-24 (Category C) Specifications.
- 19 " patchpanels unscreened or screened
- patchcords
- data system jacks, unscreened or screened
- other components and tools.

All JetLan 5e+ components surpass the Standards referring to Category 5 Enhanced (ISO/IEC 11801, EN 50173 and ANSI/TIA/EIA 568A-5), prepared by Standardisation Committees where General Cable participates in the work and research groups aiming at improving the quality of LAN networks.

Jetlan5e+

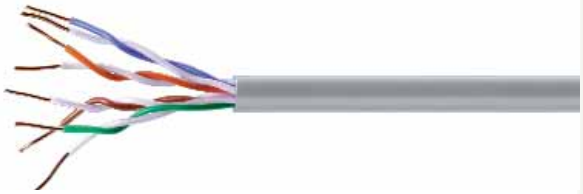
General Cable

UTP Cat 5e cable (200 MHz) (PVC sheath)

DELTA

IEC 60332-1, UNE 50265-2-1, EC Verified (DELTA), ANSI/TIA/EIA 568-B.2 (Cat. 5e), ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These cables offer excellent transmission characteristics, above the requirements for Category 5 Enhanced, with transmission quality much above other cables in the market for this category.
They have a PVC sheath.



CONSTRUCTION

Conductor	24 AWG (0,51 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length (4 pairs)
Sheath	Grey PVC

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

COLOUR CODE

Pairs	Colour combination	
1	white ☐ blue	blue
2	white ☐ orange	orange
3	white ☐ green	green
4	white ☐ brown	brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (max) nF/100m(328 ft) @ 1kHz		5,60
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm)		(min-max)
Value at	772 kHz	87-117
	1.0-200 MHz	85-115
Return Loss (RL) dB (min)		
Value at	1.0 - 10 MHz	20+5 log(f)
	10 - 20 MHz	25
	20 - 100 MHz	25-7 log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		540
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,2
Weight (kg/km)		32
Minimum bending radius (mm)		21
Installation temperature (ºC)		- 20 / +50
Operating temperature (ºC)		- 20 / +60
Calorific value (MJ/m)		0,324

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

305m

500m

1000m

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
529004CC4P	4/24	PVC, Grey	Pull-Pac boxes 305 m
529104CC4P	4/24	PVC, Grey	Spools 1.000 m
529104CC4PQ	4/24	PVC, Grey	Spools 500 m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan5e+

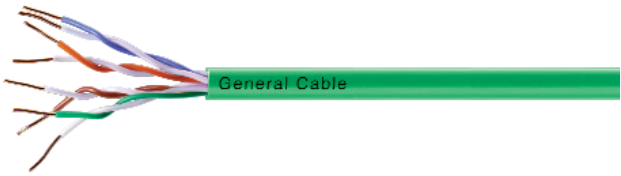
General Cable

UTP Cat 5e (200 MHz)
(LSZH sheath, acc. IEC 60332-1 and IEC 60332-3-24 specs)

DELTA

LSZH: UNE-EN 50268, UNE-EN 50267-2-1, Exzhellent: IEC 60332-3-24, UNE 50266-2-4, ANSI/TIA/EIA 568-B.2 (Cat. 5e), ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These cables offer excellent transmission characteristics, above the requirements for Enhanced Category 5, with transmission quality much above other cables in the market for this category.
They have a LSZH external sheath.



CONSTRUCTION

Conductor	24 AWG (0,51 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length (4 pairs)
Sheath	Type 332-1: Grey LSZH material, cables comply with IEC 60332-1 Type Exzhellent: Green LSZH material, cables comply with IEC 60332-3-24

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max)	Ohm/100m(328 ft) @ 20ºC	8,90
Mutual capacitance (nominal)	nF/100m(328 ft) @ 1kHz	5,60
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm)		(min-max)
Value at	772 kHz	87-117
	1.0-200 MHz	85-115
Return Loss (RL) dB (min)		
Value at	1.0 - 10 MHz	20+5log(f)
	10 - 20 MHz	25
	20 - 100 MHz	25-7log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,1 (Type 332-1) 6,2 (Type Exzhellent)
Weight (kg/km)		31,0 (Type 332-1) 47,0 (Type Exzhellent)
Minimum bending radius		4 x Outer Diameter = 21 mm (Type 332-1) 4 x Outer Diameter = 25 (Type Exzhellent)
Installation temperature (ºC)		- 20 / + 50
Operating temperature (ºC)		- 20 / + 60
Calorific value (MJ/m)		0,498

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

305m

500m

1000m

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
530004CVDP	4/24	LSZH material, Green	Pull-Pac boxes 305 m
530104CVDP	4/24	LSZH, Green	Spools 1.000 m
530104CVDPQ	4/24	LSZH, Green	Spools 500 m
531104CC4P	4/24	Special LSZH material, Green	Spools 500 / 1.000 m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

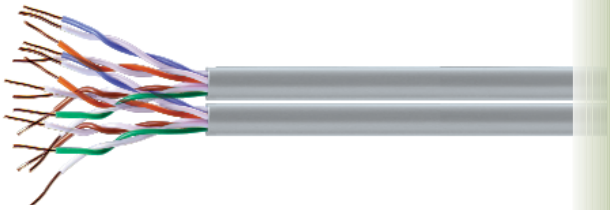
Jetlan5e+

General Cable

UTP Cat 5e Duplex cable (200 MHz) PVC or LSZH sheath

PVC: IEC 60332-1, UNE-EN 50265-2-1, LSZH: UNE-EN 50268-1, UNE-EN 50267-2-1, EC Verified (DELTA), ANSI/TIA/EIA 568-B.2 (Cat. 5e) ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These cables consist of two UTP cores, parallel, with a common sheath. They provide excellent transmission characteristics that go beyond the Enhanced Category 5 (Cat 5e) requirements, with performance values at 200 MHz much higher than other cables of this category available in the market. They may be supplied with PVC or LSZH sheaths.



CONSTRUCTION

Conductor	24 AWG (0.51mm) cobre recocido sólido
Aislamiento	Polietileno
Pareado	2 x 4 pares de conductores trenzados con distinto paso.
Sheath	Standard: PVC Grey. IEC 60332-1, UNE-EN 50265-2-1 (Cable no propagador de la llama) Cable Cero Halógeno: UNE-EN 50268-2-1 (Opacidad de Humos) y UNE-EN 50267-2-1 (Emisión de Humos). Colour Green.

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,60
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at		(min-max)
	772 kHz	87-117
	1.0-200 MHz	85-115
Return Loss (RL) Value at	dB (min)	
	1.0 - 10 MHz	20+5log(f)
	10 - 20 MHz	25
	20 - 100 MHz	25-7log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		540
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,2 x 11
Weight (kg/km)		63
Minimum bending radius (mm)		21
Installation temperature (ºC)		- 20 / + 50
Operating temperature (ºC)		- 20 / + 60
Calorific value (MJ/m)		0,996 (zh)

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
529808CC4P	8/24	Grey PVC	Spools 1000 mts
530808CC4P	8/24	Green LSZH material	Spools 1000 mts

1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan5e+

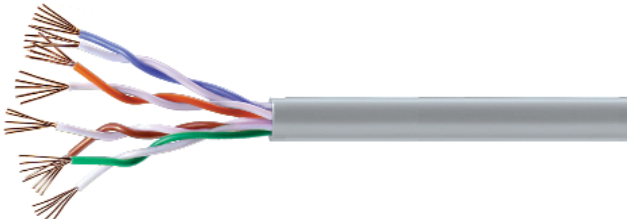
General Cable

Category 5e (200 MHz)
UTP patchcable with PVC or LSZH sheath (IEC 60332-1)

DELTA

PVC: IEC 60332-1, UNE-EN 50265-2-1, LSZH: UNE-EN 50268-1, UNE-EN 50267-2-1, EC Verified (DELTA), ANSI/TIA/EIA 568-B.2 (Cat. 5e), ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These cables, designed for internal installation, are used in the manufacture of patchcords. These are installed within the racks and in the connection of equipments to the network. They provide excellent data transmission characteristics, beyond the Enhanced category 5 (Cat 5e) requirements, with performance values at 200 MHz much higher than other cables of this category available in the market. They may have a PVC (standard type) or LSZH sheath (supplied on special demand).



CONSTRUCTION

Conductor	24 AWG (7 x 0,194 AWG), flexible bare Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Sheath	Standard type: Grey PVC LSZH type: Grey thermoplastic LSZH material

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000 BASE-T (Gigabit Ethernet)

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		14,00
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at		(min-max)
	772 kHz	87-117
	1.0-200 MHz	85-115
Return Loss (RL) dB (min) Value at	1.0 - 10 MHz	20+5log(f)
	10 - 20 MHz	25
	20 - 100 MHz	25-7log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		540
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,2
Weight (kg/km)		32,0
Minimum bending radius (mm)		22
Installation temperature (ºC)		- 20 / + 50
Operating temperature (ºC)		- 20 / + 60
Calorific value (MJ/m)		0,324 (PVC) 0,498 (LSZH)

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
553004CC4PQ	4/24	Grey PVC	Spools 500 m
553004CC4P	4/24	Grey PVC	Spools 1.000 m
554004CC4P	4/24	Grey LSZH material	Spools 500 / 1.000 m

1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan5e+

General Cable

Category 5e (200 MHz) FTP solid cable with PVC sheath

DELTA

IEC 60332-1, UNE-EN 50265-2-1, EC Verified (DELTA), ANSI/TIA/EIA 568-B.2 (Cat. 5e), ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These screened cables provide excellent transmission characteristics that go beyond the Enhanced category 5 (Cat 5e) requirements, with performance values at 200 MHz much higher than other cables of this category available in the market. The screen minimises EMI radiation and susceptibility to outside noise.

CONSTRUCTION

Conductor	24 AWG (0,51 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Screen	Aluminium / Polyester foil
Drain wire	24 AWG (0,51 mm) solid tinned annealed Copper
Sheath	Grey PVC

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (max) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm)		(min-max)
Value at	772 kHz	87-117
	1.0-200 MHz	85-115
Return Loss (RL) dB (min)		
Value at	1.0 - 10 MHz	20+5 log(f)
	10 - 20 MHz	25
	20 - 100 MHz	25-7 log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		540
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,5
Weight (kg/km)		36
Minimum bending radius (mm)		4 x Outer diameter = 22 mm

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

305m

500m

1000m

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
535004CC4P	4/24	Grey PVC	Pull-Pac Boxes 305 m
535204CC4P	4/24	PVC, Grey	Spools 1.000 m
535204CC4PQ	4/24	PVC, Grey	Spools 500 m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan5e+

General Cable

FTP Cat 5e cable (200 MHz) (LSZH sheath, acc. IEC 60332-1 and IEC 60332-3-24 specs)

IEC 60332-1, UNE-EN 50265-2-1, LSZH: UNE-EN 50268-1, UNE-EN 50267-2-1, Exzhellent: IEC 60332-3-24, UNE-EN 50266-2-4 , ANSI/TIA/EIA 568-B.2 (Cat. 5e), ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These screened cables provide excellent data transmission characteristics that go beyond the Enhanced Category 5 (Cat 5e) requirements, with performance values at 200 MHz much higher than other cables of this category available in the market. The screen minimises EMI radiation and susceptibility to outside noise.

CONSTRUCTION

Conductor	24 AWG (0.51mm) cobre recocido sólido
Aislamiento	Polietileno
Pareado	4 pares de conductores trenzados con distinto paso.
Pantalla	Cinta de aluminio poliéster.
Conductor de drenaje	24 AWG (0,51 mm) cobre estañado sólido.
Sheath	Cero Halógenos: Colour Green. Cable No propagador de la llama y Cero Halógeno. Tipo Exzhellent: Colour Green. Cable No propagador del incendio y Cero Halógeno.

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm)		(min-max)
Value at	772 kHz	87-117
	1.0-200 MHz	85-115
Return Loss (RL) dB (min)		
Value at	1.0 - 10 MHz	20+5 log(f)
	10 - 20 MHz	25
	20 - 100 MHz	25-7 log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		510
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,5 (Type 332-1)
Weight (kg/km)		35,3 (Type 332-1)
Minimum bending radius		22 (Type 332-1)

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
536004CVDP	4/24	LSZH, Green	Pull-Pac boxes 305 m
536204CVDPQ	4/24	LSZH, Green	500m reels
536204CVDP	4/24	LSZH, Green	1,000m reels
537104CVDPQ	4/24	LSZH, Green	500m reels
537104CVDP	4/24	LSZH, Green	1,000m reels

305m

500m

1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan5e+

General Cable

FTP Cat 5e Duplex cable (200 MHz) PVC or LSZH sheath

IEC 60332-1, UNE 20432-1, (UL) Verificada, ANSI/TIA/EIA 568A-5 (Cat. 5e), ISO/IEC 11801 2ªed. FDIS (2002), IEC 61156-5:2, prEN 50173 : 2001, prEN 50288-2 Amd 1, Junio 2001

They comprise two FTP cables in parallel with a joint jacket. These shielded cables provide excellent transmission characteristics that exceed the requirements of the Improved Cat. 5 and yield performance values at 200 MHz very much superior to existing cables. The shield provides for a reduction in the effect of electromagnetic interference and of radio frequencies in hostile electromagnetic environments. They have the standard PVC jacket.

CONSTRUCTION

Conductor	24 AWG (0,51 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	2 x 4 pairs with varying short lay-lengths
Screen	Aluminium / Polyester foil
Drain wire	24 AWG (0,51 mm) solid tinned annealed Copper
Ripcord	Polyester, under the sheath
Sheath	Standard type: Grey PVC LSZH type: Grey thermoplastic LSZH material

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

COLOUR CODE

Pairs	Colour combination	
1	white ☐■ blue	■ blue
2	white ☐■ orange	■ orange
3	white ☐■ green	■ green
4	white ☐■ brown	■ brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at		(min-max)
	772 kHz	87-117
	1.0-200 MHz	85-115
Return Loss (RL) dB (min) Value at	1.0 - 10 MHz	20+5 log(f)
	10 - 20 MHz	25
	20 - 100 MHz	25-7 log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		45
External diameter (mm)		6,1 x 12,8
Weight (kg/km)		87
Minimum bending radius (mm)		8 x Outer diameter = 96,2

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
535808CC4P	2x4/24	PVC, Grey	1,000m reels
536008CVDP	2x4/24	LSZH, Green	1,000m reels

1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan5e+

General Cable

Category 5e (200 MHz)
FTP patchcable PVC or LSZH sheath

DELTA

PVC: IEC 60332-1, UNE-EN 50265-2-1, LSZH: UNE-EN 50268-1, UNE-EN 50267-2-1, EC Verified (DELTA), ANSI/TIA/EIA 568-B.2 (Cat. 5e), ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288

These cables, designed for indoor applications, are used in the production of patch-cords. These are installed within the racks and in the connection of equipments to the network. They provide excellent data transmission characteristics that go beyond the Enhanced Category 5 requirements, with performance values at 200 MHz much higher than other cables of this category available in the market. The screen minimises EMI radiation and susceptibility to outside noise. They are available with PVC (standard type) or LSZH sheath (available on special demand).

CONSTRUCTION

Conductor	Conductor 24 AWG (7x32 AWG) flexible bare Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Screen	Aluminium / Polyester foil
Drain wire	24 AWG (0,51 mm) solid tinned Copper
Sheath	Standard type: Grey PVC LSZH type: Grey thermoplastic LSZH material

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000 BASE-T (Gigabit Ethernet)

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at	 772 kHz 1.0-200 MHz	(min-max) 87-117 85-115
Return Loss (RL) dB (min) Value at	 1.0 - 10 MHz 10 - 20 MHz 20 - 100 MHz	 20+5log(f) 25 25-7log(f/20)
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,3
Weight (kg/km)		32 (PVC) 31 (LSZH)
Minimum bending radius (mm)		22
Operating temperature (ºC)		- 20 / + 50
Calorific value (MJ/m)		0,30 (PVC) 0,486 (LSZH)

Frequency MHz	Attenuat. Max dB/100m	NEXT dB/100m (min)	PS-NEXT dB/100m (min)	ELFEXT dB/100m (min)	PS-ELFEXT dB/100m (min)
0,772	1,8	72,0	69,0	68,2	65,2
1	2,1	70,3	67,3	66,0	53,0
4	4,0	61,3	58,3	54,0	51,0
8	5,6	56,8	53,8	47,9	44,9
10	6,2	55,3	52,3	46,0	43,0
16	7,9	52,2	49,2	41,9	38,9
25	10,0	49,3	46,3	38,0	35,0
31,25	11,2	47,9	44,9	36,1	33,1
62,5	16,2	43,4	40,4	30,1	27,1
100	20,9	40,3	37,3	26,0	23,0
155	26,7	37,4	34,4	22,2	19,2
200	30,8	35,8	32,8	20,0	17,0

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
561104CC4P	4/24	PVC, Grey	1,000m reels
560004CVDP	4/24	LSZH, Grey	1,000m reels

1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

UTP and FTP patchpanels
Blank panel

The JetLan panels provide characteristics that go beyond the requirements of ANSI/TIA/EIA 568-B.2 and ISO/IEC 11801 Class E, based on a new printed circuit technology that increases transmission quality. All panels are supplied with installation instructions and accessories.

APPLICATIONS

- 4/16 Mbps Token Ring
- 10/100/1000 Base-T Ethernet
- 155/622 Mbps ATM
- 100 Mbps TP-PMD
- 1000BASE-T (Gigabit Ethernet)

UTP

Code	Nr. of ports
CU5NP16NGP	16
CU5WP24NGP	24
CU5NP48NGP	48

FTP

Code	Nr. of ports
CF5NP16NGP	16
CF5NP24NGP	24

CHARACTERISTICS

	UTP	FTP
Panel type	for 19" rack	for 19" rack
Panel height	1U (16&24) and 2U (48)	1U (16&24)
Depth	33,52 mm	129 mm
Colour	black	black
Connector type	RJ45	RJ49
Material	0,1 mils Ni with 0,05 mils Gold deposit	0,1 mils Ni with 0,05 mils Gold deposit
IDC	Displacement connectors	Displacement connectors
IDC contacts	Phosphor Bronze	Phosphor Bronze

The packaging is one panel per box and includes all the accessories and assembly instructions.

Blank panel. 19" 16- and 24-port 1U modular panel able to accommodate UTP type connectors. Keystone-type connectors are installed in black supports.

The references for the jacks to be used are:

CU5EJAKBLP	Jack Cat5e UTP
CU6PJAKBLP	Jack Cat6 UTP

ORDERING INFORMATION

Code	Description	Colour	Packing
CU5PV16NGP	Panel with 16 vacant ports	Black	1
CU5PV24NGP	Panel with 24 vacant ports	Black	1

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

UTP jacks

ISO / IEC 11801 Clase D, ANSI / EIA / TIA 568-B.2

Both the exclusive contact type and the advanced printed circuit technology contribute to provide a high performance level.
When terminating with 110 tools, the insulating body acts as a protection, but it may also be used with other techniques.

TESTS COMPLY WITH

- ETL Cat 5e (component)
- ANSI/TIA/EIA - 568B Cat 5e
- IEEE 802.3ab Gigabit Ethernet
- IEEE 802.3af (VoIP support)
- UL Listed 1863
- CSA Certified
- FCC part 68.5, subpart f
- IEC 603-7

APPLICATIONS

- Voice (analog or digital)
- 155 / 622 Mbps ATM
- 4 / 16 Mbps Token Ring
- 10 / 100 / 1000 Base-T Ethernet
- 100 Mbps TP-PMD

CHARACTERISTICS

Beryllium-Copper staggered contacts with a minimum of 50 micra of Gold plated on Nickel (FCC 47 Part 68.5)
IDC 110 contacts with 100 micra Lead-Tin 60/40 covering on Phosphor Bronze
Keystone type design
Easy to use universal installation system, with double labelling to avoid termination errors

ORDERING INFORMATION

Code	Description	Packing
CU5EJAKBLP	5e type jack, 110 connectors, white	1 box / 25 units

Each 25 unit box includes a plastic tool to simplify the insertion process.

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

FTP jacks

Screened jack (FTP), Keystone Cat 5e design with IDC 110 type connectors. Packing includes connector, 2 protections and instructions sheet.

APPLICATIONS

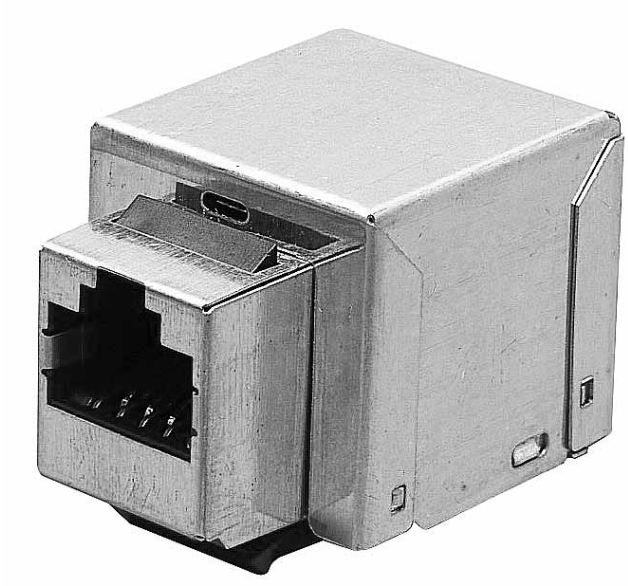
- Voice (analog or digital)
- 155 / 622 Mbps ATM
- 4 / 16 Mbps Token Ring
- 10 / 100 / 1000 Base-T Ethernet
- 100 Mbps TP-PMD

CHARACTERISTICS

Cable connection	Top or back
Material	Impact resistant, self-extinguishable
Contacts	Phosphor Bronze
Screen	50 micra Gold plated on 100 micra Nickel
IDC	Type 110

ORDERING INFORMATION

Code	Description	Packing
CF5NJAC99P	FTP 5e jack	1 box / 50 units



General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

UTP and FTP patchcords

Our JetLan 5e+ patchcords include high-performance UTP and FTP patchcables, exclusive terminations and latest technology connecting techniques. All the assembling process is fully controlled and each cord is tested to avoid unbalance problems that may affect operation at higher frequencies.

SPECIFICATIONS

The Cat 5e patch cords are 100% tested.

The patch cord is fitted in a manner compatible with T568B and T568A.

Manufacturing process with double-track plug.

ORDERING INFORMATION

Code	Description		Packing (unit/box)
CF5HL05GRP	FTP patchcord	0,5 m LSZH	10
CF5HL10GRP	FTP patchcord	1 m LSZH	10
CF5HL15GRP	FTP patchcord	1,5 m LSZH	10
CF5HL20GRP	FTP patchcord	2 m LSZH	10
CF5HL25GRP	FTP patchcord	2,5 m LSZH	10
CF5HL30GRP	FTP patchcord	3 m LSZH	10
CF5HL40GRP	FTP patchcord	4 m LSZH	5
CF5HL50GRP	FTP patchcord	5 m LSZH	5
CF5EL05GRP	FTP patchcord	0,5 m PVC	10
CF5EL10GRP	FTP patchcord	1 m PVC	10
CF5EL15GRP	FTP patchcord	1,5 m PVC	10
CF5EL20GRP	FTP patchcord	2 m PVC	10
CF5EL25GRP	FTP patchcord	2,5 m PVC	10
CF5EL30GRP	FTP patchcord	3 m PVC	10
CF5EL40GRP	FTP patchcord	4 m PVC	5
CF5EL50GRP	FTP patchcord	5 m PVC	5
CU5HS05GRP	UTP patchcord	0,5 m LSZH	10
CU5HS10GRP	UTP patchcord	1 m LSZH	10
CU5HS15GRP	UTP patchcord	1,5 m LSZH	10
CU5HS20GRP	UTP patchcord	2 m LSZH	10
CU5HS25GRP	UTP patchcord	2,5 m LSZH	10
CU5HS30GRP	UTP patchcord	3 m LSZH	10
CU5HS50GRP	UTP patchcord	5 m LSZH	5

Grey sheath – other colours available on request.

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Accessories and tools

The JetLan 5e+ range of products includes a large number of accessories to improve cable management in cabinets and racks. It also includes all the tools required for the installation of structured cabling.

ORDERING INFORMATION

ACCESSORIES

Code	Description	Packing (units/pack)
CAMP2X5BLP	Shuttered module 25x50	10
CWLG451BLP	Shuttered module 45x45	10
CAMC2X5BLP	Blank plate 25x50	10
CAPP8X8BLP	Faceplate 80x80 (with 50x50 aperture)	10
CMPAN01NGP	Blank panel 1U	5
CMPAN02NGP	Blank panel 2U	5
CMORG6LNGP	Blank management 1U - 5 rings	2
CMORGC1NGP	Blank management with cover 1U	1
CMORGC2NGP	Blank management with cover 2U	1
CMORGP1NGP	19" organizer 1U with 6 rings (Black or Grey)	2

CONNECTION TOOLS

Code	Description	Packing (units/pack)
CSPD11099P	Punch down tool with 110 blade	1
CSBL11099P	110 blade	1
CSBLLSA99P	LSA blade	1

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLan6+

JetLan is the only structured cabling system that includes all the passive elements required by the installation or modification of your data networks, as it offers all the options for high performance data cables, accessories and connection tools. All these products satisfy high quality standards, beyond the last standards or industry requirements, and form a global solution. Our technical leadership in the United States over the last years results from the application of the last technological developments, which have been transferred to Europe, at our production facilities in Portugal.

JetLan 6+ includes our most advanced technology for high speed data transmission in Copper structured networks. With JetLan 6+ we offer transmission characteristics at 500 MHz much above other solutions in the market. Independent laboratories such as Delta certify all cable characteristics.

JetLan 6+ range of products is the widest on the market:

- Copper pair cable with different sheath materials (PVC, LSZH), including types satisfying IEC 60332-1 and IEC 60332-3-24 standards
- 19" panels, with varying numbers of ports and heights
- data jacks
- patchcords
- blank patchpanels, organizers, faceplates, shuttered modules, baluns, punch down tools, etc..

All JetLan 6+ components have characteristics above the standardised requirements for ANSI/TIA/EIA Category 6 and ISO/IEC 11801 Class E.

General Cable is represented in the corresponding Standards Committees, integrating the Work Groups and Research Teams that contribute to the development and publication of new Standards to improve network characteristics.

Jetlan6+

General Cable

Cat 6 (500 MHz) UTP solid cable (PVC sheath)

DELTA

IEC 60332-1, UNE-EN 50265-2-1, EC Verified (DELTA), Cable Certificado a 500MHz, ANSI/TIA/EIA 568-B.2-1 (Cat.6), ISO/IEC 11801 : 2002, EN 50173 : 2002

These indoor cables correspond to our best technology for high speed data transmission. They provide excellent data transmission characteristics that go beyond the Category 6 requirements, with performance values at 500 MHz higher than other cables of this category available in the market.
They have a grey PVC sheath (others colours are available).

CONSTRUCTION

Conductor	23 AWG (0,574 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Sheath	Grey PVC (IEC 60332-1)

APPLICATIONS

- Supports full and half duplex operation
- Digital/analogic video
- 16 Mbps Token Ring
- 100 Mbps TP-PMOD
- 100 BASE-T (IEEE 802.3)
- 1000 BASE-T (Gigabit Ethernet)
- 155/622 Mbps ATM
- 1.2 Gbps ATM

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Resistance unbalance (max) Individual pair %		2,0
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at	1,0-100 MHz	85-115
	100-350 MHz	78-122
	350-500 MHz	68-132
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		45
External diameter (mm)		6,2
Weight (kg/km)		42
Minimum bending radius (mm)		4 x outer diameter = 25

COLOUR CODE

Pairs	Colour combination	
1	white ☐■ blue	■ blue
2	white ☐■ orange	■ orange
3	white ☐■ green	■ green
4	white ☐■ brown	■ brown

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	ACR db/100m (min)	PS-ACR db/100m (min)	Return Loss dB (min)
0,772	1,6	77,5	74,5	74,1	71,1	94,8	92	–
1	1,8	76,7	73,7	73,0	70,0	92,9	90,1	37,4
4	3,5	72,1	69,1	67,0	64,0	82	79	35,6
8	5	69,9	66,9	62,9	59,9	75,9	72,8	34,7
10	6,5	69,2	66,2	61,0	58,0	73,9	70,8	34,4
16	8,2	67,6	64,6	56,9	53,9	69,3	66,2	33,8
25	8,8	66,2	63,2	53,0	50,0	64,5	61,3	33,6
31,25	9,9	65,4	62,4	51,1	48,1	61,9	58,7	33,3
62,5	14,1	61,9	58,9	45,1	42,1	53,1	49,9	33
100	18	58,9	55,9	41,0	38,0	46,1	42,8	32,1
155	22,7	56,0	53,0	37,2	34,2	38,5	35,1	31,5
200	26	54,3	51,3	35,0	32,0	33,5	30,1	30,6
250	29,2	52,9	49,9	33,0	30,0	28,8	25,4	30,4
350	35,1	50,7	47,7	30,1	27,1	20,7	17,2	–
400	38,1	49,8	46,8	29,0	26,0	16,8	13,3	–
500	43	48,4	45,4	27,0	24,0	10,5	6,9	–

305m

500m

1000m

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
538004CC4P	4/24	Grey PVC	305 m Pull-Pac boxes
538104CC4P	4/24	Grey PVC	Spools 1.000 m
538104CC4PQ	4/24	Grey PVC	Spools 500 m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan6+

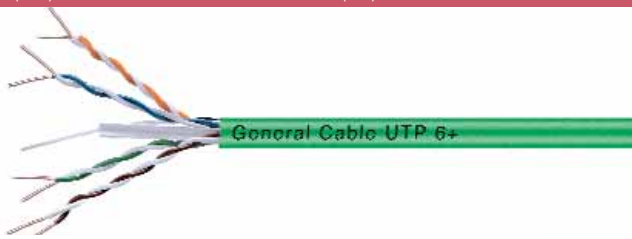
General Cable

Cat 6 (500 MHz) UTP solid cable (LSZH sheath, IEC 60332-1 and 60332-3-24 versions)

DELTA

IEC 60332-1, UNE-EN 50265-2-1, LSZH: UNE-EN 50268-1, UNE-EN 50267-2-1, Exzhellent: IEC 60332-3-24, UNE-EN 50266-2-4, EC Verified (DELTA) Cable Certificado a 500MHz, ANSI/TIA/EIA 568-B.2-1 (Cat.6) ISO/IEC 11801 : 2002, EN 50173 : 2002

These indoor cables correspond to our best technology for high speed data transmission. They provide excellent data transmission characteristics that go beyond the Category 6 requirements, with performance values at 500 MHz higher than other cables of this category available in the market.



CONSTRUCTION

Conductor	23 AWG (0,574 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Sheath	Type IEC 60332-1: Grey LSZH material Type IEC 60332-3-24 (Exzhellent): Green LSZH material

APPLICATIONS

- Supports full and half duplex operation
- Digital/analogic video
- 16 Mbps Token Ring
- 100 Mbps TP-PMOD
- 100 BASE-T (IEEE 802.3)
- 1000 BASE-T (Gigabit Ethernet)
- 155/622 Mbps ATM
- 1.2 Gbps ATM

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Resistance unbalance (max) Individual pair %		2,0
Mutual capacitance (max) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at	1,0-100 MHz 100-350 MHz 350-500 MHz	85-115 78-122 68-132
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		35
External diameter (mm)		6,1 (Type 332-1) / 7,2 (Type Exzhellent)
Weight (kg/km)		42 (Type 332-1) / 60 (Type Exzhellent)
Minimum bending radius		24,5 (Type 332-1) / 28,8 (Type Exzhellent)
Calorific value (MJ/m)		0,446 (Type 332-1)

COLOUR CODE

Pairs	Colour combination	
1	white ☐■ blue	■ blue
2	white ☐■ orange	■ orange
3	white ☐■ green	■ green
4	white ☐■ brown	■ brown

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	ACR db/100m (min)	PS-ACR db/100m (min)	Return Loss dB (min)
0,772	1,6	77,5	74,5	74,1	71,1	94,8	92	–
1	1,8	76,7	73,7	73,0	70,0	92,9	90,1	37,4
4	3,5	72,1	69,1	67,0	64,0	82	79	35,6
8	5	69,9	66,9	62,9	59,9	75,9	72,8	34,7
10	6,5	69,2	66,2	61,0	58,0	73,9	70,8	34,4
16	8,2	67,6	64,6	56,9	53,9	69,3	66,2	33,8
25	8,8	66,2	63,2	53,0	50,0	64,5	61,3	33,6
31,25	9,9	65,4	62,4	51,1	48,1	61,9	58,7	33,3
62,5	14,1	61,9	58,9	45,1	42,1	53,1	49,9	33
100	18	58,9	55,9	41,0	38,0	46,1	42,8	32,1
155	22,7	56,0	53,0	37,2	34,2	38,5	35,1	31,5
200	26	54,3	51,3	35,0	32,0	33,5	30,1	30,6
250	29,2	52,9	49,9	33,0	30,0	28,8	25,4	30,4
350	35,1	50,7	47,7	30,1	27,1	20,7	17,2	–
400	38,1	49,8	46,8	29,0	26,0	16,8	13,3	–
500	43	48,4	45,4	27,0	24,0	10,5	6,9	–

305m

500m 1000m

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
539004CVDP	4/23	LSZH, Green	Pull-Pac boxes 305 m
539104CVDPQ	4/23	LSZH, Green	500m reels
539104CVDP	4/23	LSZH, Green	1,000m reels
540104CVDPQ	4/23	LSZH, Green - IEC 60332-3C	500m reels
540104CVDP	4/23	LSZH, Green - IEC 60332-3C	1,000m reels

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan6+

General Cable

Cat 6 (300 MHz) FTP solid cable (PVC sheath)

IEC 60332-1, EN 50265, ANSI/TIA/EIA 568-B.2-1 (Cat.6), ISO/IEC 11801 : 2002, EN 50173 : 2002

These indoor cables correspond to our best technology for high speed data transmission. They provide excellent data transmission characteristics that go beyond the Category 6 requirements, with performance values at 500 MHz higher than other cables of this category available in the market.

CONSTRUCTION

Conductor	24 AWG (0,51 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Screen	Aluminium-Polyester foil
Drain wire	Tinned Copper
Sheath	Grey PVC

APPLICATIONS

- Supports full and half duplex operation
- Digital/analogic video
- 16 Mbps Token Ring
- 100 Mbps TP-PMOD
- 100 BASE-T (IEEE 802.3)
- 1000 BASE-T (Gigabit Ethernet)
- 155/622 Mbps ATM
- 1.2 Gbps ATM

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Resistance unbalance (max) Individual pair %		2,0
Mutual capacitance (max) nF/100m(328 ft) @ 1kHz		5,20
Nominal velocity of propagation NVP (% speed of light)		68
Characteristic impedance (Ohm) Value at	1,0-100 MHz	85-115
	100-350 MHz	78-122
	350-500 MHz	68-132
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		35
External diameter (mm)		7,3
Weight (kg/km)		53
Minimum bending radius (mm)		29

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	Return Loss dB (min)
1	2,1*	75,3*	72,3*	68,0*	65,0*	20,0*
4	3,8	66,3	63,3	56,0	53,0	23,0
10	6,0	60,3	57,3	48,0	45,0	25,0
16	7,6	57,2	54,2	43,9	40,9	25,0
20	8,5	55,8	52,8	42,0	39,0	25,0
31,25	10,7	52,9	49,9	38,1	35,1	23,6
62,5	15,5	48,4	45,4	32,1	29,1	21,5
100	19,9	45,3	42,3	28,0	25,0	20,1
155	25,3	42,4	39,4	24,2	21,2	18,8
200	29,1	40,8	37,8	22,0	19,0	18,0
250**	33,0	39,3	36,3	20,0	17,0	17,3

* Typical value

** Please consult us for transmission performance between 250 and 350 MHz

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
541104CC4PQ	4/24	PVC, Grey	500m reels
54114A1C4P	4/24	PVC, Grey	1,000m reels

500m 1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan6+

General Cable

Cat 6 (300 MHz) FTP solid cable (LSZH sheath)

IEC 60332-1, EN 50265, ANSI/TIA/EIA 568-B.2-1 (Cat.6), ISO/IEC 11801 : 2002, EN 50173 : 2002, LSZH: UNE-EN 50268, UNE-EN 50267

These indoor cables correspond to our best technology for high speed data transmission. They provide excellent data transmission characteristics that go beyond the Category 6 requirements, with performance values at 500 MHz higher than other cables of this category available in the market. They have a LSZH sheath (standard colour Grey) according to EN 50268 and EN 50267-2-1, and satisfy the requirements of EN 50265-1 (IEC 60332-1) concerning flame retardancy.

CONSTRUCTION

Conductor	23 AWG (0,574 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Screen	Aluminium-Polyester foil
Drain wire	Tinned Copper
Sheath	LSZH material

APPLICATIONS

- Supports full and half duplex operation
- Digital/analogic video
- 16 Mbps Token Ring
- 100 Mbps TP-PMOD
- 100 BASE-T (IEEE 802.3)
- 1000 BASE-T (Gigabit Ethernet)
- 155/622 Mbps ATM
- 1.2 Gbps ATM

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Resistance unbalance (max) Individual pair %		3,0
Mutual capacitance (max) nF/100m(328 ft) @ 1kHz		5,60
Nominal velocity of propagation NVP (% speed of light)		70
Characteristic impedance (Ohm) Value at	1,0-100 MHz	85-115
	100-350 MHz	78-122
	350-500 MHz	68-132
Propagation Delay (max) (ns @ 10 MHz)		518
Delay skew (max) (ns/100 m)		35
External diameter (mm)		7,1
Weight (kg/km)		51,3
Minimum bending radius (mm)		28,3

COLOUR CODE

Pairs	Colour combination	
1	white □■ blue	■ blue
2	white □■ orange	■ orange
3	white □■ green	■ green
4	white □■ brown	■ brown

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	Return Loss dB (min)
1	2,1*	75,3*	72,3*	68,0*	65,0*	20,0*
4	3,8	66,3	63,3	56,0	53,0	23,0
10	6,0	60,3	57,3	48,0	45,0	25,0
16	7,6	57,2	54,2	43,9	40,9	25,0
20	8,5	55,8	52,8	42,0	39,0	25,0
31,25	10,7	52,9	49,9	38,1	35,1	23,6
62,5	15,5	48,4	45,4	32,1	29,1	21,5
100	19,9	45,3	42,3	28,0	25,0	20,1
155	25,3	42,4	39,4	24,2	21,2	18,8
200	29,1	40,8	37,8	22,0	19,0	18,0
250**	33,0	39,3	36,3	20,0	17,0	17,3

* Typical value

** Please consult us for transmission performance between 250 and 350 MHz

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
543104CVDPQ	4/24	LSZH, Green	500m reels
543104CVDP	4/24	LSZH, Green	1,000m reels

500m 1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

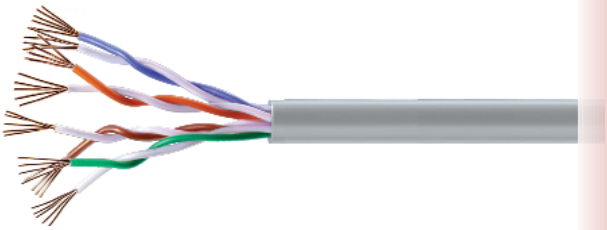
Jetlan6+

General Cable

Cat 6 (250 MHz) UTP patchcable (PVC or LSZH sheath)

IEC 60332-1, EN 50265-2-1, EC Verified (DELTA), ANSI/TIA/EIA 568-B.2-1 (Cat.6), ISO/IEC 11801 : 2002, EN 50173 : 2002

These cables, designed for internal installation, are used in the manufacture of patchcords. These are installed within the racks and in the connection of equipments to the network. They provide excellent data transmission characteristics, beyond the Category 6 (Cat 6) requirements, with performance values at 250 MHz much higher than other cables of this category available in the market.
They may have a PVC (standard type) or LSZH sheath (supplied on special demand).



CONSTRUCTION

Conductor	24 AWG (7 x 32 AWG), flexible bare Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Sheath	Standard type - Grey PVC LSZH type - Grey LSZH material

APPLICATIONS

- Supports full and half duplex operation
- Digital/analogic video
- 16 Mbps Token Ring
- 100 Mbps TP-PMOD
- 100 BASE-T (IEEE 802.3)
- 1000 BASE-T (Gigabit Ethernet)
- 155/622 Mbps ATM
- 1.2 Gbps ATM

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Resistance unbalance (max) Individual pair %		2,0
Mutual capacitance (max) nF/100m(328 ft) @ 1kHz		5,50
Nominal velocity of propagation NVP (% speed of light)		70
Characteristic impedance (Ohm) Value at	1,0-100 MHz 100-250 MHz	85-115 78-122
Propagation Delay (max) (ns @ 10 MHz)		545
Delay skew (max) (ns/100 m)		45
External diameter (mm)		5,4
Weight (kg/km)		33
Minimum bending radius (mm)		22

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	ACR db/100m (min)	PS-ACR db/100m (min)	Return Loss dB (min)
0,772	1,9	77,5	74,5	74,1	71,1	90,9	88,1	–
1	2,2	76,7	73,9	73,0	70,0	85,0	83,2	31,4
4	4,2	72,1	69,1	67,0	64,0	74,8	73,3	30,9
8	6,0	69,9	66,9	62,9	59,9	65,0	61,1	34,5
10	6,6	69,2	66,2	61,0	58,0	62,5	61,7	37,4
16	8,4	67,6	64,6	56,9	53,9	58,0	57,3	39,3
25	10,6	66,2	63,2	53,0	50,0	55,8	52,7	35,5
31,25	12,0	65,4	62,4	51,1	48,1	50,0	47,6	36,3
62,5	17,0	61,9	58,9	45,1	42,1	38,1	35,0	34,5
100	21,6	58,9	55,9	41,0	38,0	31,5	29,7	33,3
155	27,2	56,0	53,0	37,2	34,2	17,4	14,8	30,0
200	31,2	54,3	51,3	35,0	32,0	10,2	9,2	26,5
250	35,0	52,9	49,9	33,0	30,0	4,7	4,7	25,6

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
559104CC4P	4/24	PVC, Grey	1,000m reels
559104CC4PQ	4/24	PVC, Grey	500m reels
563004CC4P	4/24	LSZH, Green	1,000m reels
563004CC4PQ	4/24	LSZH, Green	500m reels

1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

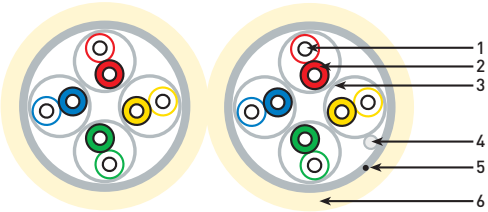
Jetlan6+

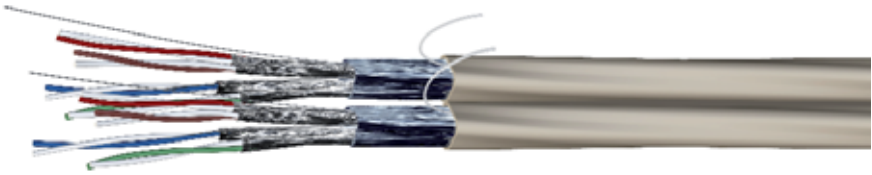
General Cable

High Speed LAN Cables
VISISAT - 4 Pair and 2x4 Pair Category 6

ISO 11801, EN 50173, EN 50288-5-1, IEC 61156-5

Marking: 4 P (or 2x4 P) FTP CAT 6 100 OHMS 250 MHz LSZH (or PVC) – General Cable - Year - Mounth + metric units





CONSTRUCTION

1 - 23AWG solid annealed copper conductor (0.574 mm)

2 - PE insulation (Foan-Skin)

3 - Braided pairs with individual screen on each pair

4 - Tinned Cu drain wire and Al Mylar screen

5 - Rip cord

6 - Grey PVC flame retardant sheath

APPLICATIONS

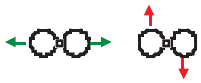
The VISISTAT group of cables is recommended for video and digital transmissions at very high speeds in environments subject to strong electromagnetic interference.
The use of Class E (100base, T, TP-MD, ATM155, 2-pair GIGABIT-ETHERNET, ATM1200) is easily permitted, along with analogue and digital TV signals. Its specifications reach 300 MHz.

COLOUR CODE

Pairs	Colour combination
1	white / blue
2	white / orange
3	white / green
4	white / brown

Note: These cables are not suitable for low impedance applications such as heating and lighting, etc. They are identified with the mark pursuant to the provisions of the European Council Low Voltage Directive 73/23/EEC of 19 February 1973, subsequently amended by Directive 93/68EEC of 22 July 1993.

To separate the two 2x4 pair cables (Duplex), cut the seal and split them as indicated below.



ELECTRICAL CHARACTERISTICS

Nominal Velocity of Propagation (NVP) (%)	72
Average impedance from 10 to 250 MHz (Ω)	100 ± 5
Propagation delay (ns/100m)	470
Delay skew (ns/100m)	25
DC Resistance in C.C. (Ω/k)	164
Dielectric strength during 1 minute (V c.c.)	1000
Insulation strength (MΩ.km)	> 5000
Coupling attenuation:	
- 30 to 100 MHz	> 80 dB
- 100 to 1000 MHz	80-20log(f/100)
Nominal/maximum operating voltage (V)	200
Maximum operating current (A)	0,25

TRANSMISSION CHARACTERISTICS

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	Return Loss dB (min)
1	2	78	75	78	75	23
10	5,9	78	75	74	71	25,0
16	7,4	78	75	69,9	66,9	25
31,25	10,4	78	75	64,1	61,1	23,6
62,5	14,8	75,5	72,5	58,1	55,1	21,5
100	18,8	72,4	69,4	54	51	19,9
155	23,5	69,5	66,5	50,2	47,2	18,8
250	31	66,5	63,5	46	43	17,3
300	34,2	65	62	33	31	16,8

ORDERING INFORMATION

	4 pairs	2x4 pairs
Standard supply length	1000 m	500 m
Type of spool	600 mm (disposable)	
Size	0,6 x 0,455 m	
Nominal weight of the loaded spool	70 kg	70 kg

Storage temperature	-15°C to +70°C
Operating temperature	0°C to +60°C
Fitting temperature	-5°C to +40°C (between 5°C and +5°C, keep at 20°C for 24 hours before drawing)
Fire resistance	Pursuant to IEC 60332-1 and NFC 32070 category C2

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
CFS6H41GRP	4/23	LSZH 332-1, Grey	1,000m reels
CFS6V81GRP	2x4/23	PVC, Grey	500m reels
CFS6H85GRP	2x4/23	LSZH 332-1, Grey	1,000m reels

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Jetlan6+

General Cable

Flexible Category 6 SSTP Cable (600 MHz) with Zero Halogen Sheath (LSZH) (individual screen + overall colectiva)

Cat.5e: EN 50173, EN 50173 (2ªed), ISO/IEC 11801, ISO/IEC 11801 (2ªed), EN 50168, Cat.6: ISO/IEC 11801 (2ªed), EN 50173 (2ªed), prEN 50288-5-2 Agosto 2000

These cables, designed for internal installation, are used in the manufacture of patch-cords. These are installed within the distribution cabinets and in the connection of equipments to the network. They provide excellent data transmission characteristics, beyond the Category 6 requirements, with some 600 MHz performances far superior to existing cables on the market.
The material is supplied with a Zero Halogen sheath (LSZH).

CONSTRUCTION

Conductor	27/7 AWG flexible bare copper
Insulation	Cellular PE
Individual screen	Aluminium/PETP
Pairing	4 pairs of braided conductors
Overall screen	Tinned copper braid
Sheath	Zero Halogen: grey IEC 60332-3 Cat.C IEC 60754-2 IEC 61034

ELECTRICAL AND CONSTRUCTIVE VALUES

DC Resistance (max)	Ohm/km	170
Insulation resistance (min)	G Ohm/km	5
Mutua capacitance (nominal)	pF/m	48
Propagation Delay (recommended value)	ns/100 m	440
Delay skew (recommended value)	ns/100 m at 100 MHz	12
Impedance Frequency	1 to 100 MHz 100 to 250 MHz	100 ± 15% 100 ± 18%
External Diameter (mm)		5,8
Weight (kg/km)		34

APPLICATIONS

- IEEE 802.3 10 BaseT Ethernet
- IEEE 802.3u 100 BaseT Fast Ethernet
- IEEE 802.3ab 1000 BaseT Gigabit Ethernet
- IEEE 802.5 Token Ring
- IEEE 802.12 100VG-AnyLAN
- FDDI en cobre, RDSI, ATM, video

Freq. MHz	Attenuat. Max. dB/10m	NEXT dB (min)	PS-NEXT dB (min)	ACR dB@10m (min)	PS-ACR dB@10m (min)	ELFEXT db@10m (min)	PS-ELFEXT db@10m (min)	Return Loss dB (min)
1	0,29	90	87	90	87	95	92	22,7
4	0,43	90	87	90	87	98	95	26,8
10	0,71	90	87	89	86	101	98	32,5
16	0,97	90	87	89	86	98	95	35,7
31,25	1,46	90	87	89	86	89	86	38,9
62,5	2	90	87	88	85	78	75	41
100	2,68	90	87	87	84	68	65	39,2
155	3,2	87	84	84	81	61	58	37,4
200	3,81	85	82	81	78	58	55	35,1
250	4,31	83	80	79	76	56	53	33,2
300	4,87	80	77	75	72	56	53	31,8
450	5,9	75	72	69	66	48	45	29,7
500	6,73	72	69	65	62	38	35	28,8
600	7,47	69	66	62	59	32	29	28,7
700	8,15	65	61	57	53	29	26	25,3

COLOUR CODE

Pairs	Colour combination	
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
CS6STPFGRP	4Pr/27	LSZH	1,000m reels

1000m

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

UTP patchpanels
Blank panel

UTP **patchpanels.** JetLan panels present characteristics that go beyond the requirements of the new ANSI/TIA/EIA 568-B.2-1 Category 6 and ISO/IEC 11801 Class E standard. This provides improved transmission characteristics over 250 MHz. Using a recently designed printed circuit board, this panel provides considerable electrical efficiency with an easy insertion sequence.

APPLICATIONS

- Gigabit Ethernet 1000Base-Tx
- 10/100/1000Base-T Ethernet
- IEEE 802.3ab Gigabit Ethernet Verified
- 155/622 Mbps ATM
- 100 Mbps TP-PMD
- 4/16 Mbps Token Ring
- Video digital y analógico / (VoIP)

PERFORMANCES

IDC dual-type connection (110/KATT)

Takes a solid 22-26 AWG conductor

T568B/A wiring

Exceeds the ANSI/TIA/EIA 568-B.2-1 Category 6 standard requirements

ORDERING INFORMATION

Code	Description	Packaging
CU6WP24NGP	24 port panel, connection 110/KATT 568A/B	1
CU6PP48NGP	48 port panel, connection 110/KATT 568A/B	1

The panel is supplied with screws, nuts, plastic flanges and rear cable-guide.

Blank panel. 19" 16- and 24-port IU modular panel able to accommodate both UTP and FTP connectors. The Keystone-type connectors are fitted within black markers.

The references for the jacks to be used are:

CU6NJAKBLP	Jack Cat6 UTP

ORDERING INFORMATION

Code	Description	Colour	Packing
CU6PV24NGP	Panel with 24 vacant ports	Black	1

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

FTP patchpanels

Category 6 panels use a double balanced compensation printed circuit board design which greatly exceeds the requirements of all Standards. The metal top is removable, confering EMI and RFI shielding togheter with an easy access for termination.
The 110 system guarantees perfect mechanical connection of solid conductors from 22 AWG to 26 AWG.

CHARACTERISTICS

- UL Listed & CSA Certified
- T568B and T568A configurations
- Includes earthing accesories, clamps and screws
- Rear cable support
- Rear plate for earth connection

ORDERING INFORMATION

Code	Description	Packing (unit/box)
CF6PP24NGP	24-port FTP panel	1

APPLICATIONS

Voice (Analogic & Digital)
4/16 Mbps Token Ring
100 VG AnyLan
100 Mbps TP-PMD
155/622 Mbps ATM
10BASE-T Ethernet
100BASE-TX Fast Ethernet
1000BASE-T Gigabit Ethernet

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UTP and FTP patchcords

Our JetLan 6+ patchcords use a high-performance UTP or FTP patchcable, exclusive terminations and latest coupling techniques. All the assembly process is fully controlled and each cord is tested to avoid unbalance problems which may affect operation at high frequencies.

SPECIFICATIONS

Cat 6 patchcords are 100% tested.

The installation of the cords is compatible both with T568B and T568A.

Manufactured with double way plugs.

ORDERING INFORMATION

Code	Description		Packing (unit/box)
CU6HS05GRP	UTP patchcord	0,5 m - LSZH	10
CU6HS10GRP	UTP patchcord	1 m - LSZH	10
CU6HS20GRP	UTP patchcord	2 m - LSZH	10
CU6HS30GRP	UTP patchcord	3 m - LSZH	10
CU6HS50GRP	UTP patchcord	5 m - LSZH	5
CF6PL05GRP	SSTP patchcord	0,5 m - LSZH	10
CF6PL10GRP	SSTP patchcord	1 m - LSZH	10
CF6PL15GRP	SSTP patchcord	1,5 m - LSZH	10
CF6PL20GRP	SSTP patchcord	2 m - LSZH	10
CF6PL25GRP	SSTP patchcord	2,5 m - LSZH	10
CF6PL30GRP	SSTP patchcord	3 m - LSZH	10
CF6PL50GRP	SSTP patchcord	5 m - LSZH	5

Grey sheath – other colours available on request.

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

UTP and FTP jacks

UTP jacks. These jacks were designed to provide characteristics above the requirements in Standards ANSI/TIA/EIA-568-B.2-1 Category 6 and ISO/IEC 11801 Class E. Both the exclusive contact type and the advanced printed circuit technology contribute to provide a high performance level.

SPECIFICATIONS

- Typical return loss values below 20 dB at 200 MHz provide a safety margin of 11 dB against the Category 6 requirements
- Certified UL 1863 (#E129878) and CSA (#LR 80837)
- Satisfy ISO/IEC 11801 and EN 50173.
- Internal contacts of Copper-Beryllium with a minimum of 50 micra of Gold plated on Nickel
- IDC 110 contacts with 100 micra of Lead-Tin alloy on Phosphorus Bronze
- Characteristics tested up to 350 MHz by ETL
- Headroom of 3 - 6 dB against Cat 6 specifications (channel)
- Universal contacts type alloying connections type T568a or T568B
- Keystone design available (CU6PJAKBLP)
- Metallic contacts

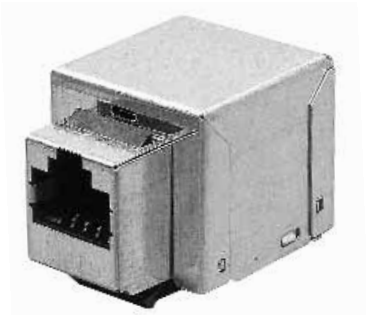
ORDERING INFORMATION

Code	Description	Packaging
CU6PJAKBLP	Category 6, 110 connectors, white, Keystone type	25
CU6NJAKBCP	Category 6, 110 connectors, white, 180º Keystone type	25

FTP jacks. Our FTP Category 6 jacks provide very good transmission characteristics, based on the technology used in the printed circuit boards, which are above the specified requirements. The 110 system allows the connection of solid conductors from 22 AWG to 26 AWG. The jack is fully screened, providing a total protection against electromagnetic interferences. The connectors are of Keystone type.

COMPLIANCES

ANSI/TIA/EIA-568-A
ANSI/TIA/EIA-568-A-2
ANSI/TIA/EIA-568-A-5
ISO/IEC 11801
ANSI/TIA/EIA-568B.2-1 Cat. 6
ISO/IEC 11801 2nd edition
ETL certified



APPLICATIONS

Voice (analogic and digital)
4 / 16 Mbps Token Ring
100 VG Anylan
100 Mbps TP-PMD
155 / 622 Mbps ATM
10BASE-T Ethernet
100BASE-TX Fast Ethernet
1000BASE-T Gigabit Ethernet
TIA PN 4657 Gigabit Ethernet on Cat 6 cabling

ORDERING INFORMATION

Code	Description	Packaging (unid./caja)
CF6PJAC99P	FTP Category 6 jack, 110 connection	25

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Accessories and tools

The JetLan 5e+ range of products includes a large number of accessories to improve cable management in cabinets and racks. It also includes all the tools required for the installation of structured cabling.

ORDERING INFORMATION

ACCESSORIES

Code	Description	Packing (units/pack)
CAMP2X5BLP	Shuttered module 25x50	10
CWLG451BLP	Shuttered module 45x45	10
CAMC2X5BLP	Blank plate 25x50	10
CAPP8X8BLP	Face plate 80x80, with 50x50 aperture	10
CMPAN01NGP	Blank panel 1U	5
CMPAN02NGP	Blank panel 2U	5
CMORG6LNGP	Blank management 1U - 5 rings	2
CMORGC1NGP	Blank management with cover 1U	1
CMORGC2NGP	Blank management with cover 2U	1
CMORGP1NGP	19" organizer 1U with 6 rings (Black or Grey)	2

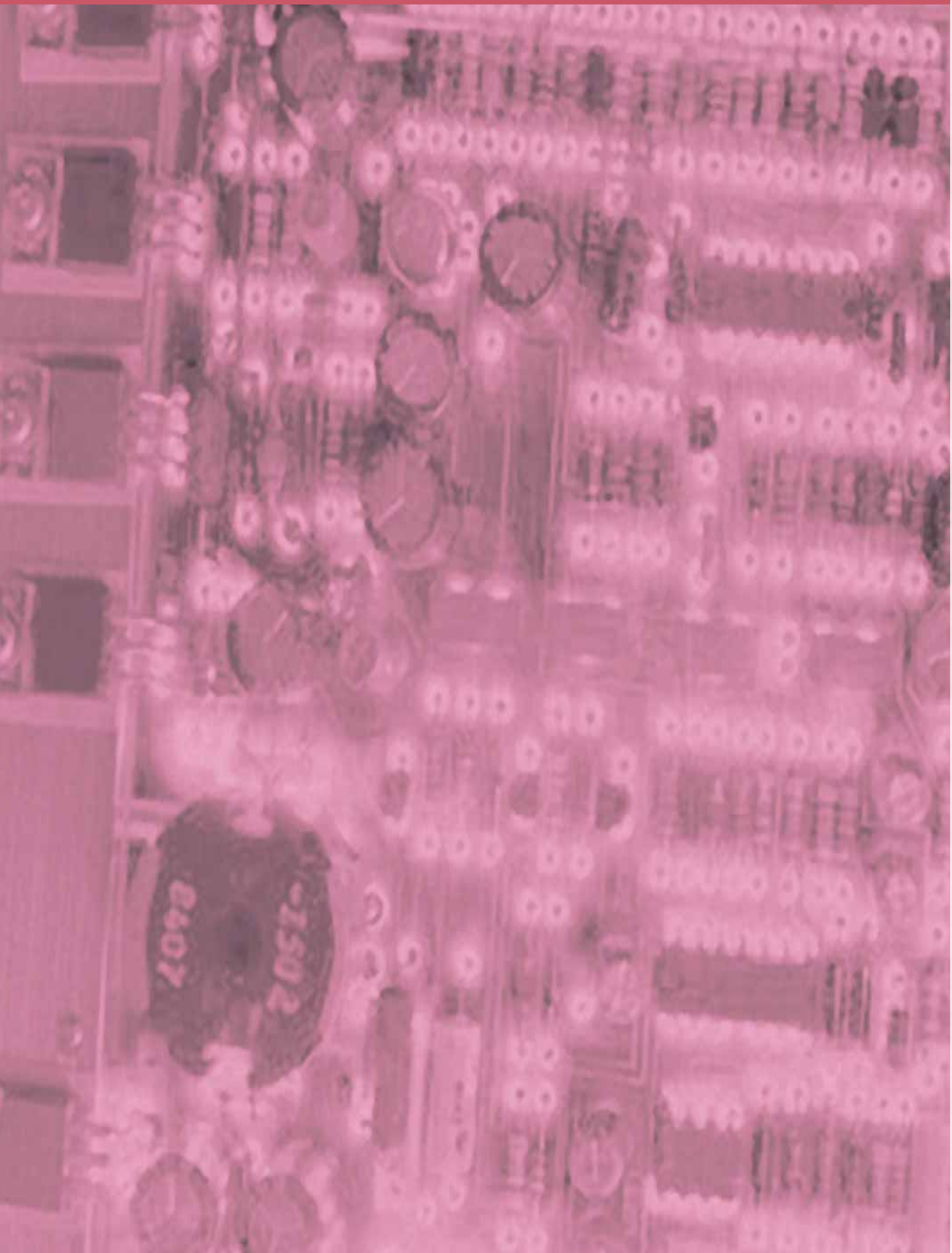
CONNECTING TOOLS

Code	Description	Packing (units/pack)
CSPD11099P	Punch down tool with 110 blade	1
CSBL11099P	110 blade	1
CSBLLSA99P	LSA blade	1

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLan6+

General Cable



JetLan7+

JetLan7+ has our most advanced technology for transmitting data at high speed in copper structured cabling systems, at the very cutting edge of data communications systems. With JetLan7+ we can offer you performance values in excess of 600 MHz. The performance differential we endow it with is endorsed by the independent laboratories UL and Delta.

JetLan7+ includes the widest range of elements on the market:

- twisted pair cables, with their different jackets (PVC, LSF/OH) in line with IEC 60332.1 and IEC 60332-3C standards.

All JetLan7+ components are more than fully compliant with ANSI/TIA/EIA 568 B2-1 Category 6, and ISO/IEC11801:2002 Class E standards. General Cable has a presence on these Standardisation Committees, forming part of work and research teams promoting the development and publication of new standards for improving the performance of LANs.

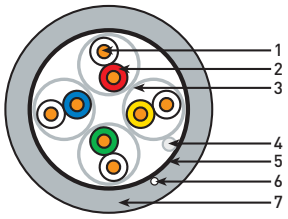
Jetlan7+

General Cable

F-FTP 4-pair and 2x4-pair LSZH and PVC – Category 7 High-Speed Cables for video, local area networks.

ISO 11801, EN 50173, EN 50288-4-1, IEC 61156-5-1, EIA/TIA 568-A & PN - 4425

Marking: 4 P (or 2x4 P) FSTP CAT 7 100 OHMS 600 MHz LSZH o PVC – General Cable - Year - Month + metric marking



CONSTRUCTION

1 - Solid calibre annealed copper conductor (AWG 23)

2 - Coloured polyurethane insulation

3 - Conductors braided in pairs with individual shielding for each pair

4 - Annealed copper continuity wire

5 - Aluminised shield

6 - Rip cord

7 - Flame-retardant white or grey LSZH or PVC sheath (4-pair: 7.5mm of 0.60kg/km in weight) (2x4-pair: 7.5x16mm, 130kg/km in weight)

APPLICATIONS

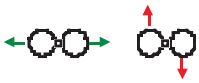
The CAT 7 FSTP group of cables is recommended for very high speed video and digital transmission in environments subject to significant interference.
Class F protocols and video signals (analogue and digital) are easily covered. Its power sum near end crosstalk (PS NEXT) and power sum equal level far end crosstalk (PS ELFEXT) exceed CAT 7 standards. The specifications of these cables exceed 600MHz.

COLOUR CODE

Pairs	Colour combination
1	white / blue
2	white / orange
3	white / green
4	white / brown

N.B. These cables are not suitable for low-impedance applications such as heating or lighting, etc. They are identified by the mark under that established in the European Council Low Voltage Directive 73/23/EEC of 19 February 1973, subsequently amended by Directive 93/68/EEC of 22 June 1993.

To separate the two 2x4-pair (Duplex) cables, cut the seal and separate them as indicated below.



ELECTRICAL CHARACTERISTICS

Nominal Velocity of Propagation (NVP) (%)	74
Average impedance from 10 to 250 MHz (Ω)	100 ± 5
Delay skew (ns/100m)	< 40
DC Resistance in C.C. (Ω/k)	< 140,2
Dielectric strength during 1 minute (V c.c.)	1000
Insulation strength (MΩ.km)	> 5000
Coupling attenuation:	
- 30 to 100 MHz	> 80 dB
- 100 to 1000 MHz	80-20log(f/100)
Nominal/maximum operating voltage (V)	125 / 200
Maximum operating current (A)	0,25

TRANSMISSION CHARACTERISTICS

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)	Return Loss dB (min)
1	2	78	75	78	75	
4	3,7	78	75	78	75	23,1
10	5,9	78	75	74	71	25
16	7,4	78	75	69,9	66,9	25
20	8,3	78	75	68	62	25
31,25	10,4	78	75	64,1	61,1	23,6
62,5	14,9	75,5	72,5	58,1	55,1	21,5
100	19	72,4	69,4	54	51	20,1
155	24	69,5	66,5	50,2	47,2	18,8
200	27,5	67,9	64,9	48	45	18
300	34,2	65,2	62,2	44,5	41,5	17,3
600	50,1	60,7	57,7	38,4	35,4	17,3

ORDERING INFORMATION

	4 pair	2x4 pair
Standard supply length	1000 m	500 m
Type of reel	600 mm (disposable)	
Size	0,6 x 0,455 m	
Nominal weight of loaded reel	70 kg	70 kg

Storage temperature	-15°C to +70°C
Operating temperature	0°C to +60°C
Laying temperature	-5°C to +40°C (between 5ºC and +5ºC, keep at 20ºC for 24 hours before drawing)
Fire performance	As per IEC 60332-1 and NFC 32070 category C2

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packaging
CFS7H41GRP	4/23	LSZH 332-1, Grey	1,000m reels
CFS7H81GRP	2x4/23	PVC, Grey	500m reels

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

The JetLanOptic system is a solution for optical networks including a full range of cables, both for indoor and outdoor installations, and all the components and accessories required for the cabling installation.
This system is covered by the 25 years Warranty offered by General Cable.

JetLanOptic includes:
- Indoor cables with LSZH sheaths
- Universal cables
- External cables with metallic or dielectric armouring
- Panels for installation in racks
- Connectors and adaptors (ST, SC, SMA, FDI, FC/PC and MT-RJ)
- Optical patchcables

General Cable offers optical fibre cables with different types of fibre:
- Multimode 62.5/125 µm, 50/125 µm and OM3
- Single mode 10/125 µm

Market demand for larger bandwidths in LAN's resulted in the development of Standard IEEE 802.3ae (10 Gigabit Ethernet) to satisfy improved requirements.
The limit of 10 Gigabit imposed by standard fibres (50/125 µm e 62.5/125 µm) imposed the development of a multimode fibre - OM3 - able to carry 10 Gigabit per second to distances up to 300 m.
General Cable may offer this type of fibre in several cable designs on special request.

Assessments

5	4	3	2	1
Excellent	Very Good	Good	Fair	Limited

Telephony	Flexibility	Crushing
Low Temperat.	High Temperat.	UV
Corrosiveness	Water	Fire

Identification*

Fibre optics, µSHEATH® modules and "supermodules" are identified individually with the following colour coding:

1 - Red	7 - Orange
2 - Blue	8 - Grey
3 - Green	9 - Brown
4 - Yellow	10 - Black
5 - Violet	11 - Turquoise
6 - White or ivory	12 - Pink

(*) Caso de haber requisitos especiales : Contacte con General Cable.

STANDARDS

Attenuation	EN-188000
Water progression	IEC 794-1-F5A
Sheath dimensions	ITI 015
Tensile performance	IEC 794-1-E1
Crush test	IEC 794-1-E3
Impact test	IEC 794-1-E4
Temperature cycling	IEC 794-1-F1
Bending test	IEC 794-1-E11, proc.1
PMD	IEC TS 61941

SINGLE MODE FIBRES 10-125 µm

Single mode fibres used in our cables have the performance described below. They all comply with UIT Recommendation G-652 and EN-188000.

OPTICAL AND PHYSICAL PROPERTIES

		standard	max.
Attenuation (dB/km)	1310 nm	0,35	0,40
	1550 nm	0,21	0,25
Mode field diameter (µm)	1310 nm		9,1 ± 0,5
	1550 nm		10,5 ± 1
Cut-off wavelength (nm)			≤ 1270
Minimum bending radius (mm)			40
Elongation at 700 g/OF			≤ 1%
PMD, cabled fibre (Ps/√km)			≤ 0,5
Total dispersion, max (Ps/nm x km)	1288 - 1339 nm		3,5
	1271 - 1360 nm		5,3
	1550 nm		18

MECHANICAL AND GEOMETRIC PROPERTIES

Cladding diameter (µm)	125 ± 1
Cladding noncircularity	≤ 2%
Concentricity core-cladding	≤ 0,6%
Coating diameter (µm)	245 ± 10
Coating noncircularity	≤ 5%
Concentricity of coating (µm)	≤ 12
Core noncircularity (µm)	≤ 1

Tensile strength (kpsi)	100
Adherence	with selected solvents
Zero dispersion wavelength (nm)	± 1311
Slope of dispersion at the zero dispersion wavelength (Ps/nm².km)	≤ 0,093
Cut-off wavelength (nm)	1150 - 1330

MULTIMODE FIBRES

Multimode optical fibres used in cablemaking have the characteristics listed below, all in agreement with EN 188000.

OPTICAL PROPERTIES

50-125 µm

Attenuation (dB/km)	850 nm (max.)	2,4
	1300 nm (max.)	0,6
Bandwidth, min (MHz x km)	850 nm	≥ 400
	1300 nm	≥ 600
Numerical Aperture		0,200 ± 0,015

62.5-125 µm

Attenuation (dB/km)	850 nm (max.)	3
	1300 nm (max.)	0,7
Bandwidth, min (MHz x km)	850 nm	200
	1300 nm	600
Numerical aperture		0,275 ± 0,015

PHYSICAL PROPERTIES

Core diameter (µm)	50 ± 3
	62.5 ± 2,5
Core noncircularity	≤ 6%
Cladding diameter (µm)	125 ± 2

Cladding concentricity	≤ 1%
Coating diameter (µm)	245 ± 10
Tensile strength (kpsi)	100

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Colour Code

Optical fibres (single or multitube designs)

fibre	colour
1	Gr - green
2	Rd - red
3	Bl - blue
4	Ye - yellow
5	Gy - grey
6	Vi - violet
7	Br - brown
8	Or - orange
9	Nt - natural
10	Wh - white
11	Bk - black
12	Lb - light blue

Tube colour code (multitube designs)

	tube nr.											
fibre	1	2	3	4	5	6	7	8	9	10	11	12
1,2,4	Wh	Bk	Bk	Bk	Bk	Bk						
8,12	Wh	Rd	Bk	Bk	Bk	Bk						
16,24,32	Wh	Wh	Rd	Gr	Bk	Bk						
36,48	Wh	Wh	Wh	Wh	Rd	Gr						
64	Wh	Wh	Rd	Rd	Bl	Bl	Gr	Gr				
128(1)	Wh	Rd	Bk	Bl	Gr	Bk						
128 (2)	Wh	Wh	Wh	Rd	Rd	Rd	Bl	Bl	Bl	Gr	Gr	Gr

Multitube designs

Total fibre count	128	64	48	36	32	24	16	12	8	6
Nr. of fibres/tube	8	8	8	6	8	6	4	6	4	6
Total nr. of tubes	16	8	6	6	4	4	4	2	2	1
Total nr. of fillers	–	–	–	–	2	2	2	4	4	5

Armoured cable with high mechanical resistance
Cable with improved mechanical and chemical resistance

Good water blocking performance
In case of external sheath cracks, water does not progress along the cable.

NON metallic cables
Unscreened non metallic cable, immune to electromagnetic fields.

Rodent protection
Cable with excellent rodent protection.

Rodent protection
Cable with good rodent protection.

Rodent protection
Cable with light rodent protection.

High impact strength
Impact resistance up to 400 N/cm. The load doesn't affect the characteristics of the fibres and the cable suffers no damage.

Cable with halogen free flame retardant sheath
The halogen free sheath is self-extinguishable. Flame retardant and halogen free.

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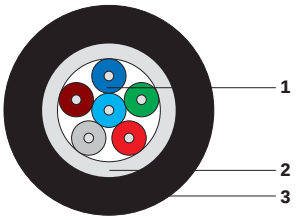
General Cable

Optical Fibre Cable

Tight tube, dielectric armour, LSZH sheath

EC-794-1-E1, IEC-794-1-E4, IEC-794-1-E3, IEC-794-1-F5A, IEC-794-1-F1, IEC-794-1-E11



CONSTRUCTION

1 - Fibre protection	900 µm acrylate layer Protección ajustada Libre de Halógenos y No propagador de la Llama para cada fibra
2 - Armouring	Fibreglass rovings as tensile strengh member
3 - Outer Sheath	LSZH flame retardant sheath (IEC 60332-1) tight buffer coating for each fibre

PHYSICAL PROPERTIES

		Value	Standard
Maximum pulling load		700 N	IEC-794-1-E1
Impact strength		5 J	IEC-794-1-E4
Maximum radial pressure		10 bar	IEC-794-1-E3
Static radial pressure		2 bar	IEC-794-1-E3
Water progression		Sheaths	IEC-794-1-F5A
Thermal cycling		–20ºC to +70ºC	IEC-794-1-F1
Minimum bending radius		10 x Ø	IEC-794-1-E11
Cable weight	4 OF	24 kg/km	
	6 OF	33 kg/km	
	8 OF	38 kg/km	
	12 OF	44 kg/km	
External diameter	4 OF	6,3 mm	
	6 OF	6,6 mm	
	8 OF	6,9 mm	
	12 OF	7,2 mm	

Code	Fibre count
Multimode 62.5/125 µm	
C046TILNGP	4
C066TILNGP	6
C086TILNGP	8
C126TILNGP	12
Multimode 50/125 µm	
C045TILNGP	4
C065TILNGP	6
C085TILNGP	8
C125TILNGP	12
Single mode 10/125 µm	
C049TILNGP	4
C069TILNGP	6
C089TILNGP	8
C129TILNGP	12

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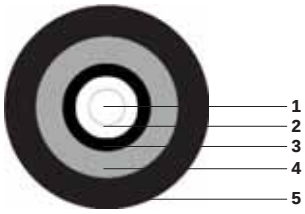
JetLanOptic

General Cable

Optical Fibre Cable

Dielectric armour for external apps.

EC-794-1-E1, IEC-794-1-E4, IEC-794-1-E3, IEC-794-1-F5A, IEC-794-1-F1, IEC-794-1-E11



CONSTRUCTION

SINGLE TUBE (up to 12 fibres)

1 - Secundary protection	250 µm loose fibre PBT tube
2 - Tube filling	Water repellent, non toxic, non-irritant gel
3 - Inner sheath	Low density black polyethylene (PE)
4 - Armouring	Aramid fibres
5 - Outer sheath	High density black polyethylene (PE)

MULTITUBE (> 12 fibres)

Central element	GRP rod
1 - Secundary protection	250 µm loose fibre PBT tube
2 - Tube filling	Water repellent, non toxic, non-irritant gel
Cable core	Active and passive tubes laid around the central element, the spaces being filled with a water repellent compound
3 - Inner sheath	Low density black polyethylene (PE)
4 - Armouring	Aramid fibres
5 - Outer sheath	High density black polyethylene (PE)

PHYSICAL CHARACTERISTICS

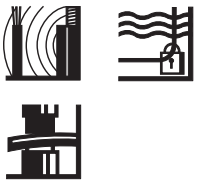
SINGLE TUBE (up to 12 fibres)

	Value	Standard
Maximum pulling load	1500 N	IEC-794-1-E1
Impact strength	1 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	60 kg/km (approx.)	
External diameter	8,5 mm (approx.)	

MULTITUBE (> 12 fibres)

	Value	Standard
Maximum pulling load	6500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	145 kg/km (approx.)	
External diameter	13,5 mm (approx.)	

Code	Fibres	Code	Fibres	Code	Fibres
Multimode 62,5/125 µm		Multimode 50/125 µm		Single mode 10/125 µm	
C046PKPNGP	4	C045PKPNGP	4	C049PKPNGP	4
C066PKPNGP	6	C065PKPNGP	6	C069PKPNGP	6
C086PKPNGP	8	C085PKPNGP	8	C089PKPNGP	8
C126PKPNGP	12	C125PKPNGP	12	C129PKPNGP	12
C166PKPNGP	16	C165PKPNGP	16	C169PKPNGP	16
C246PKPNGP	24	C245PKPNGP	24	C249PKPNGP	24
C326PKPNGP	32	C325PKPNGP	32	C329PKPNGP	32
C486PKPNGP	48	C485PKPNGP	48	C489PKPNGP	48
C646PKPNGP	64	C645PKPNGP	64	C649PKPNGP	64



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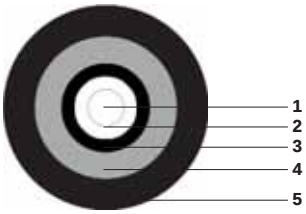
General Cable

Optical Fibre Cable

Dielectric armour for internal and external apps. LSZH sheath

EC-794-1-E1, IEC-794-1-E4, IEC-794-1-E3, IEC-794-1-F5A, IEC-794-1-F1, IEC-794-1-E11



CONSTRUCTION

SINGLE TUBE (up to 12 fibres)

1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
3 - Inner sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound
4 - Pulling element	Aramid fibres
5 - Outer sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound

MULTITUBE (> 12 fibres)

Central element	GRP rod
1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
Cable core	Active and passive tubes laid around the central element, the spaces being filled with a water repellent compound
3 - Inner sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound
4 - Pulling element	Aramid fibres
5 - Outer sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound

PHYSICAL CHARACTERISTICS

SINGLE TUBE (up to 12 fibres)

	Value	Standard
Maximum pulling load	1500 N	IEC-794-1-E1
Impact strength	1 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	110 kg/km (approx.)	
External diameter	8,4 mm (approx.)	

MULTITUBE (> 12 fibres)

	Value	Standard
Maximum pulling load	6500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	185 kg/km (approx.)	
External diameter	13,5 mm (approx.)	

Code	Fibres
Multimode 62,5/125 µm	
C046TKTNGP	4
C066TKTNGP	6
C086TKTNGP	8
C126TKTNGP	12
C166TKTNGP	16
C246TKTNGP	24
C326TKTNGP	32
C486TKTNGP	48
C646TKTNGP	64

Code	Fibres
Multimode 50/125 µm	
C045TKTNGP	4
C065TKTNGP	6
C085TKTNGP	8
C125TKTNGP	12
C165TKTNGP	16
C245TKTNGP	24
C325TKTNGP	32
C485TKTNGP	48
C646TKTNGP	64

Code	Fibres
Single mode 10/125 µm	
C049TKTNGP	4
C069TKTNGP	6
C089TKTNGP	8
C129TKTNGP	12
C169TKTNGP	16
C249TKTNGP	24
C329TKTNGP	32
C489TKTNGP	48
C649TKTNGP	64

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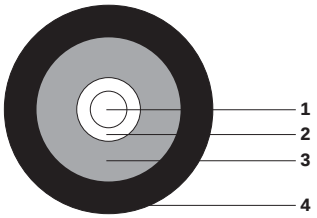
Optical Fibre Cable

Dielectric armour for external installations

EC-794-1-E1, IEC-794-1-E4, IEC-794-1-E3, IEC-794-1-F5A, IEC-794-1-F1, IEC-794-1-E11



CONSTRUCTION

SINGLE TUBE (up to 12 fibres)

1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
3 - Pulling element	Longitudinal fibreglass rovings
4 - Outer sheath	High density black polyethylene (PE)

MULTITUBE (> 12 fibres)

Central element	GRP rod
1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
Cable core	Active and passive tubes laid around the central element, the spaces being filled with a water repellent compound
3 - Pulling element	Longitudinal fibreglass rovings
4 - Outer sheath	High density black polyethylene (PE)

PHYSICAL CHARACTERISTICS

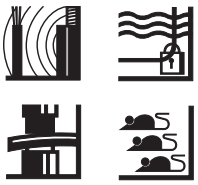
SINGLE TUBE (up to 12 fibres)

	Value	Standard
Maximum pulling load	1500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	44 kg/km (approx.)	
External diameter	6,7 mm (approx.)	

MULTITUBE (> 12 fibres)

	Value	Standard
Maximum pulling load	6500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	125 kg/km (approx.)	
External diameter	11,8 mm (approx.)	

Code	Fibres	Code	Fibres	Code	Fibres
Multimode 62,5/125 µm		Multimode 50/125 µm		Single mode 10/125 µm	
C046UFLNGP	4	C045UFLNGP	4	C049UFLNGP	4
C066UFLNGP	6	C065UFLNGP	6	C069UFLNGP	6
C086UFLNGP	8	C085UFLNGP	8	C089UFLNGP	8
C126UFLNGP	12	C125UFLNGP	12	C129UFLNGP	12
C166UFLNGP	16	C165UFLNGP	16	C169UFLNGP	16
C246UFLNGP	24	C245UFLNGP	24	C249UFLNGP	24
C326UFLNGP	32	C325UFLNGP	32	C329UFLNGP	32
C486UFLNGP	48	C485UFLNGP	48	C489UFLNGP	48
C646UFLNGP	64	C646UFLNGP	64	C649UFLNGP	64



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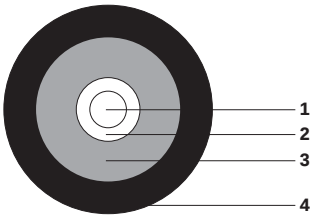
General Cable

Optical Fibre Cable

Dielectric armour for internal and external installations. LSZH sheath

EC-794-1-E1, IEC-794-1-E4, IEC-794-1-E3, IEC-794-1-F5A, IEC-794-1-F1, IEC-794-1-E11



CONSTRUCTION

SINGLE TUBE (up to 12 fibres)

1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
3 - Pulling element	Longitudinal fibreglass rovings
4 - Outer sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound

MULTITUBE (> 12 fibres)

Central element	GRP rod
1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
Cable core	Active and passive tubes wound around the central element, the spaces being filled with a water repellent compound
3 - Pulling element	Longitudinal fibreglass rovings
4 - Outer sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound

PHYSICAL CHARACTERISTICS

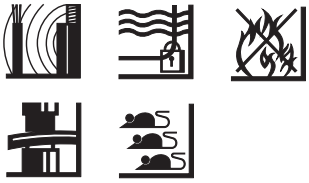
SINGLE TUBE (up to 12 fibres)

	Value	Standard
Maximum pulling load	1500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	64 kg/km (approx.)	
External diameter	6,7 mm (approx.)	

MULTITUBE (> 12 fibres)

	Value	Standard
Maximum pulling load	6500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	150 kg/km (approx.)	
External diameter	12 mm (approx.)	

Code	Fibres	Code	Fibres	Code	Fibres
Multimode 62,5/125 µm		Multimode 50/125 µm		Single mode 10/125 µm	
C046UFHNGP	4	C045UFHNGP	4	C049UFHNGP	4
C066UFHNGP	6	C065UFHNGP	6	C069UFHNGP	6
C086UFHNGP	8	C085UFHNGP	8	C089UFHNGP	8
C126UFHNGP	12	C125UFHNGP	12	C129UFHNGP	12
C166UFHNGP	16	C165UFHNGP	16	C169UFHNGP	16
C246UFHNGP	24	C245UFHNGP	24	C249UFHNGP	24
C326UFHNGP	32	C325UFHNGP	32	C329UFHNGP	32
C486UFHNGP	48	C485UFHNGP	48	C489UFHNGP	48
C646UFHNGP	64	C646UFHNGP	64	C649UFHNGP	64



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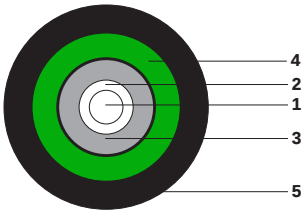
General Cable

Optical Fibre Cable

Metallic armour for external installations

EC-794-1-E1, IEC-794-1-E4, IEC-794-1-E3, IEC-794-1-F5A, IEC-794-1-F1, IEC-794-1-E11



CONSTRUCTION

SINGLE TUBE (up to 12 fibres)

1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
3 - Inner sheath	Low density black polyethylene (PE)
4 - Pulling element	Corrugated steel tape with copolymer layer
5 - Outer sheath	High density black polyethylene (PE)

MULTITUBE (> 12 fibres)

Central element	GRP rod
1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
Cable core	Active and passive tubes wound around the central element, the spaces being filled with a water repellent compound
3 - Inner sheath	Low density black polyethylene (PE)
4 - Pulling element	Corrugated steel tape with copolymer layer
5 - Outer sheath	High density black polyethylene (PE)

PHYSICAL CHARACTERISTICS

SINGLE TUBE (up to 12 fibres)

	Value	Standard
Maximum pulling load	1500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	85 kg/km (approx.)	
External diameter	10 mm (approx.)	

MULTITUBE (> 12 fibres)

	Value	Standard
Maximum pulling load	6500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	190 kg/km (approx.)	
External diameter	14 mm (approx.)	

Code	Fibres	Code	Fibres	Code	Fibres
Multimode 62,5/125 µm		Multimode 50/125 µm		Single mode 10/125 µm	
C046LCLNGP	4	C045LCLNGP	4	C049LCLNGP	4
C066LCLNGP	6	C065LCLNGP	6	C069LCLNGP	6
C086LCLNGP	8	C085LCLNGP	8	C089LCLNGP	8
C126LCLNGP	12	C125LCLNGP	12	C129LCLNGP	12
C166LCLNGP	16	C165LCLNGP	16	C169LCLNGP	16
C246LCLNGP	24	C245LCLNGP	24	C249LCLNGP	24
C326LCLNGP	32	C325LCLNGP	32	C329LCLNGP	32
C486LCLNGP	48	C485LCLNGP	48	C489LCLNGP	48
C646LCLNGP	64	C645LCLNGP	64	C649LCLNGP	64

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

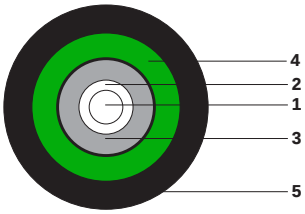
JetLanOptic

General Cable

Optical Fibre Cable

Metallic armour for internal and external installations. LSZH sheath

EC-794-1-E1, IEC-794-1-E4, IEC-794-1-E3, IEC-794-1-F5A, IEC-794-1-F1, IEC-794-1-E11



CONSTRUCTION

SINGLE TUBE (up to 12 fibres)

1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
3 - Inner sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound
4 - Pulling element	Corrugated steel tape with copolymer layer
5 - Outer sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound

MULTITUBE (> 12 fibres)

Central element	GRP rod
1 - Secondary protection	250µm loose fibres PBT tube
2 - Tube filling	Water repellent, non toxic, non irritant gel
Cable core	Active and passive tubes wound around the central element, the spaces being filled with a water repellent compound
3 - Inner sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound
4 - Pulling element	Corrugated steel tape with copolymer layer
5 - Outer sheath	Flame retardant, zero halogen, low smoke emission thermoplastic compound

PHYSICAL CHARACTERISTICS

SINGLE TUBE (up to 12 fibres)

	Value	Standard
Maximum pulling load	1500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	85 kg/km (approx.)	
External diameter	10 mm (approx.)	

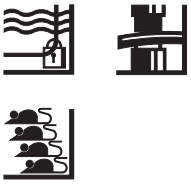
MULTITUBE (> 12 fibres)

	Value	Standard
Maximum pulling load	6500 N	IEC-794-1-E1
Impact strength	5 J	IEC-794-1-E4
Maximum radial pressure	10 bar	IEC-794-1-E3
Static radial pressure	2 bar	IEC-794-1-E3
Water progression	Sheaths	IEC-794-1-F5A
Thermal cycling	–20 ºC to +70 ºC	IEC-794-1-F1
Minimum bending radius	20 cm	IEC-794-1-E11
Cable weight	190 kg/km (approx.)	
External diameter	14 mm (approx.)	

Code	Fibres
Multimode 62,5/125 µm	
C046HCHNGP	4
C066HCHNGP	6
C086HCHNGP	8
C126HCHNGP	12
C166HCHNGP	16
C246HCHNGP	24
C326HCHNGP	32
C486HCHNGP	48
C646HCHNGP	64

Code	Fibres
Multimode 50/125 µm	
C045HCHNGP	4
C065HCHNGP	6
C085HCHNGP	8
C125HCHNGP	12
C165HCHNGP	16
C245HCHNGP	24
C325HCHNGP	32
C485HCHNGP	48
C645HCHNGP	64

Code	Fibres
Single mode 10/125 µm	
C049HCHNGP	4
C069HCHNGP	6
C089HCHNGP	8
C129HCHNGP	12
C169HCHNGP	16
C249HCHNGP	24
C329HCHNGP	32
C489HCHNGP	48
C649HCHNGP	64



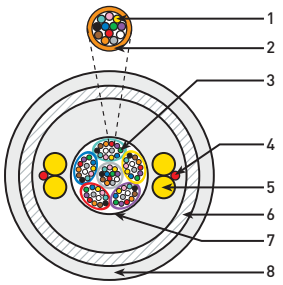
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Dielectric µSHEATH® cable for ducts and direct burial

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 5 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G655,...), or multimode 50/125 or 62.5/125.

2 - Colour-coded waterblocked µSHEATH® units containing 2, 4, 6, 8 or 12 fibres.

3 - Depending on the fibre count and unit size, the optical core comprises one or several bundles of µSHEATH® units. The bundles are covered with a thin coloured sheath, so as to form "super-units". Waterproofing is obtained with water-swellable elements ("dry" design favouring cable handling and preparation).

4 - Synthetic tape on assembly (eventual)

5 - Optional ripcords (please contact us)

6 - Dielectric strength members are embedded in a black polyethylene outer sheath.

7 - Glass yarns armour giving high-tensile, high-crush and rodent retardancy performance.

8 - Black HDPE outer sheath

Optional: dielectric glass yarns replaced by corrugated steel armour.

APPLICATIONS

These cables are suited to every kind of communication networks: long haul backbones, metro rings, distribution and local access.
Fully dielectric, they are suited to direct burial. They also may be laid in trough or trench and are adapted to be pull in rigid thermoplastic ducts.
Their double sheath and strengthening glass yarns armour insure high protection against mechanical aggression and rodent retardancy.
Due to their µSHEATH® structure, they are ultra-compact, very light, easy to handle, offer easy entry / fibre access (both at cable end and mid-span) and are suitable to both individual and mass-splicing.

µSHEATH® cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Fibre Count [1]	Modularity[1]	Weight kg/km	Outer Diameter mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km [(2)]
12	1x12	66	9.3	110	225 / 75	< 12 km
24	2x12	90	10.8	125	320 / 105	< 12 km
48	4x12	110	12.2	145	405 / 135	< 12 km
72	6x12	145	14.1	170	545 / 180	< 8 km
96	8x12	180	16.1	195	670 / 220	< 8 km
144	12x12	185	16.1	195	695 / 230	< 8 km
216	18x12	230	17.7	215	855 / 285	< 6 km
288	24x12	310	21.2	255	1035 / 345	< 4 km
432	3x12x12			Consult us		
864	6x12x12			Consult us		

(1) Other fibre counts and other modularity possible under request (see next page)
(2) May depend on fibre type used. Please consult us.

Maximum fibre-count versus modularity

Diameter (nominal) mm	9.3	10.8	12.2	14.1	16.1	17.7	21.2	?	?
Modularity: 2 O.F. / uni	2	18	24	40	48	*	*	*	*
Modularity: 4 O.F. / uni	4	32	40	64	96	*	*	*	*
Modularity: 6 O.F. / uni	6	30	48	66	120	144	*	*	*
Modularity: 8 O.F. / uni	8	32	48	72	136	192	*	*	*
Modularity: 12 O.F. / uni	12	36	48	72	144	216	288	456	876

(*) For modularities 2,4,6 and 8 : please contact us.

DELIVERY CODES

C①② ③ M P F NGP

(①②)	(③) Type	(M)	(P) Sheath	(F) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	µSHEATH®	Indoor - PE Outdoor - HDPE	Glass yarns	Black

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

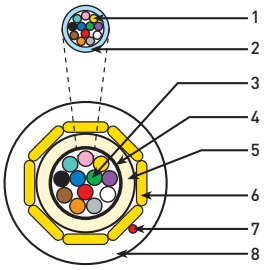
JetLanOptic

General Cable

Dielectric µSHEATH® cable multi-purpose

(duct, trough, direct burial, aerial, rodent-resistant,...)

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 5 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G 655,...), or multimode 50/125 or 62.5/125.

2 - Watertight µSHEATH® module containing 2, 4, 6, 8 or 12 fibres.

3 - Bundle of µSHEATH® units + swellable elements for watertightness ("clean cable").

4 - Tape.

5 - Thermoplastic inner sheath.

6 - Rigid dielectric armour constituted of stranded flat GRP elements.

7 - Ripcord

8 - HDPE outer sheath (standard colour: black).

APPLICATIONS

These all dielectric cables are designed for pulling in rigid thermoplastic ducts, for direct burial and trough. They are also designed for aerial installation for span up to 80 m using specific devices for clamping on poles (please enquire).
Their double sheathing and the rigid dielectric armour insure a high protection against mechanical aggression, rodent attacks and shot-gun damages.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Fibre Count (1)	Weight kg/km	Outer Diameter mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (2)
36	170	13.5	180	680 / 225	< 5 km
72 (3)	220	16.0	210	880 / 295	< 5 km
144 (3)	280	18.5	240	1120 / 375	< 5 km

(1) Modularity = 12 - Contact us for other fibre-counts and other modularities (see next page)
(2) May depend on fibre type used. Please consult us.
(3) Non standard - Please consult us.

Maximum fibre-count versus modularity

Diameter (nominal) mm	13.5	16.0	18.5
Modularity: 2 O.F. / uni	22	38	48
Modularity: 4 O.F. / uni	32	56	96
Modularity: 6 O.F. / uni	36	60	126
Modularity: 8 O.F. / uni	40	64	136
Modularity: 12 O.F. / uni	36	72	144

Note: Optional MULTIPURPOSE µSHEATH® cables are also available. They are constituted with standard µSHEATH® cables for ducts surrounded by a rigid dielectric armour (stranded flat GRP elements) covered with a black high density polyethylene sheath. Please consult us for more informations (dimensions, weight, performance).

DELIVERY CODES

C①② ③ M P G NGP

(①②)	(③) Type	(M)	(P) Sheath	(G) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	µSHEATH®	Outdoor - HDPE	Dielectric GRP	Black

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

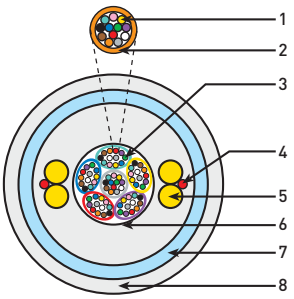
JetLanOptic

General Cable

Steel Tape Armoured µSHEATH® Cable

for direct burial, trench, trough, sewer or duct laying

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 5 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G655,...), or multimode 50/125 or 62.5/125.

2 - Colour-coded waterblocked µSHEATH® units containing 2, 4, 6, 8 or 12 fibres.

3 - Depending on the fibre count and unit size, the optical core comprises one or several bundles of µSHEATH® units. The bundles are covered with a thin coloured sheath, so as to form "super-units". Waterproofing is obtained with water-swellable elements ("dry" design favouring cable handling and preparation).

4 - Synthetic tape on assembly (eventual)

5 - Optional ripcords (please contact us)

6 - Dielectric strength members are embedded in a black polyethylene outer sheath.

7 - Corrugated steel armour bonded to external sheath

8 - Black HDPE outer sheath

Optional: corrugated steel armour replaced by dielectric glass yarns.

APPLICATIONS

These cables are suited to every kind of communication networks: long haul backbones, metro rings, distribution and local access. They are suited to direct burial. They also may be laid in trough or trench and are adapted to be pull in rigid thermoplastic ducts. Their double sheath and steel tape armour insure good radial watertight, high protection against mechanical aggression and rodents. Due to their µSHEATH® structure, they are ultra-compact, very light, easy to handle, offer easy entry / fibre access (both at cable end and mid-span) and are suitable to both individual and mass-splicing.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Fibre Count (1)	Modularity (1)	Weight kg/km	Outer Diameter mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (2)
12	1x12	95	9.7	115	90 / 45	< 6 km
24	2x12	125	11.2	135	135 / 65	< 6 km
48	4x12	155	12.6	150	170 / 85	< 6 km
72	6x12	190	14.5	175	235 / 115	< 4 km
96	8x12	240	16.7	200	300 / 150	< 4 km
144	12x12	245	16.7	200	315 / 155	< 4 km
216	18x12	290	18.1	215	395 / 195	< 4 km
288	24x12	390	21.8	265	500 / 250	< 4 km
432	3x12x12	560	26.5	345	650 / 325	Consult us
864	6x12x12	790	32.0	390	840 / 420	Consult us

(1) Other fibre counts and other modularity possible under request (see next table).
(2) May depend on fibre type used. Please consult us.

Maximum fibre-count versus modularity

Diameter (nominal) mm	9.7	11.2	12.6	14.5	16.7	18.1	21.8	26.5	32.0
Modularity: 2 O.F. / uni	2	18	24	40	48	(*)	(*)	(*)	(*)
Modularity: 4 O.F. / uni	4	32	40	64	96	(*)	(*)	(*)	(*)
Modularity: 6 O.F. / uni	6	30	48	66	120	144	(*)	(*)	(*)
Modularity: 8 O.F. / uni	8	32	48	72	136	192	(*)	(*)	(*)
Modularity: 12 O.F. / uni	12	36	48	72	144	216	288	456	876

(*) For modularities 2,4,6 and 8 : please contact us.

DELIVERY CODES

C①② ③ M P S NGP

(①②)	(③) Type	(M)	(P) Sheath	(S) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	µSHEATH®	Indoor - PE Outdoor - HDPE	Corrugated steel	Black

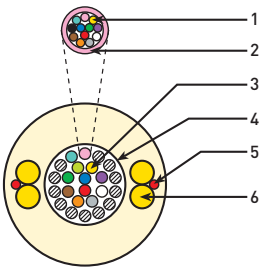
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Dielectric indoor µSHEATH® cable

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 3 3 3 4 3 4 4

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G655,...), or multimode 50/125 or 62.5/125.

2 - Colour-coded waterblocked µSHEATH® units containing 2, 4, 6, 8 or 12 fibres.

3 - Bundle of µSHEATH® units + optional swellable elements for watertightness.

4 - Synthetic tape on assembly (eventual)

5 - Optional ripcords (please contact us)

6 - Dielectric strength members are embedded in a ivory thermoplastic halogen free outer sheath (LSZH).

APPLICATIONS

Indoor µSHEATH® cables are suited to local communication networks.
Due to their µSHEATH® structure, they are ultra-compact, very light, easy to handle, offer easy entry / fibre access (both cable end and mid-span) and are suitable to both individual and mass-splicing.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Fibre Count (1)	Modularity(1)	Weight kg/km	Outer diameter mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (2)
12	1 x 12	26	< 5	50	65 / 20	< 12 km
24	2 x 12	51	< 7	70	115 / 40	< 12 km
48	4 x 12	68	< 8	80	155 / 50	< 12 km
72	6 x 12	130	< 11	110	250 /80	< 8 km
96	8 x 12	155	< 13	130	395 / 130	< 8 km
144	12 x 12	170	< 13	130	420 / 140	< 8 km
288	24 x 12	255	< 16	160	585 / 195	< 6 km

(1) Other fibre counts and other modularity possible under request (see next table)
(2) May depend on fibre type used. Please consult us.
These halogen free cables are at least flame retardant (according to IEC 60332-1) and generally fire retardant (according to IEC 60332-3), and emit low smoke quantities.

Maximum fibre-count versus modularity

Diameter (nominal) mm	5.0	7.0	8.0	11.0	13.0	16.0
Modularity: 2 O.F. / uni	2	18	24	48	(*)	(*)
Modularity: 4 O.F. / uni	4	32	40	72	96	(*)
Modularity: 6 O.F. / uni	6	30	48	72	114	(*)
Modularity: 8 O.F. / uni	8	32	48	72	192	(*)
Modularity: 12 O.F. / uni	12	36	48	72	216	288

(*) For modularities 2,4,6 and 8 : please contact us.

DELIVERY CODES

C①② ③ M L I CRP

(①②)	(③) Type	(M)	(L) Sheath	(I) Armouring	(CRP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	µSHEATH®	Thermoplastic LSZH IEC 332-3	Indoor installation	Ivory

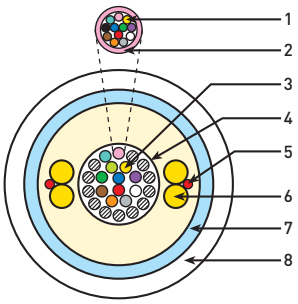
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Halogen-free armoured µSHEATH® cable protected against fire hazards

European standards series EN 60794, International standards series IEC 60794, IEC 60331, IEC 60332



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 4 3 3 4 4 4 5

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G655,...), or multimode 50/125 or 62.5/125.

2 - Colour-coded waterblocked µSHEATH® units containing 2, 4, 6, 8 or 12 fibers.

3 - Bundle of µSHEATH® units + optional swellable elements for watertightness.

4 - Synthetic tape on assembly (eventual)

5 - Optional ripcords (please contact us)

6 - Dielectric strength members are embedded in a thermoplastic halogen free inner sheath (LSZH).

7 - Corrugated steel armour bonded to the outer sheath

8 - Cross-linked halogen free outer sheath - Standard colour: black

APPLICATIONS

These cables are designed for installation in trough, shelf rail, cable tunnel,... for optical links in tunnels, subways,... requiring high performance against fire propagation (tests according to C1 NF C 32 070 or IEC 60332-3), with low smoke density, low toxicity and low corrosivity. These cables are used by the french RATP subways and by Eurotunnel. Their corrugated steel armour insures a high protection against mechanical aggression and rodent attacks.
Due to their µSHEATH® structure, they are easy to handle, offer easy entry / fibre access (both cable end and mid-span) and are suitable to both individual and mass-splicing.

These halogen free cables are fire retardant (according to IEC 60332-3), and emit low smoke quantities.

µSHEATH® cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Fibre Count (1)	Weight kg/km	Outer diameter mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (2)
< 48	210	12.8	165	150 / 75	2.05
60 - 72	320	16.1	210	237 / 117	or
84 - 216	400	18.4	240	360 / 180	
228 - 288	520	21.4	280	470 / 235	4.10 km

(1) Other fibre counts and other modularity possible under request (see next table).
(2) May depend on fibre type used. Please consult us.

Maximum fibre-count versus modularity

Diameter (nominal) mm	12.8	16.1	18.4	21.4
Modularity: 2 O.F. / uni	24	48	(*)	(*)
Modularity: 4 O.F. / uni	40	72	96	(*)
Modularity: 6 O.F. / uni	48	72	144	(*)
Modularity: 8 O.F. / uni	48	72	192	(*)
Modularity: 12 O.F. / uni	48	72	216	288

(*) For modularities 2,4,6 and 8 : please contact us.

DELIVERY CODES

C①② ③ M L S NGP

(①②)	(③) Type	(M)	(L) Sheath	(S) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	µSHEATH®	Thermoplastic LSZH IEC 332-3	Corrugated steel	Black

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

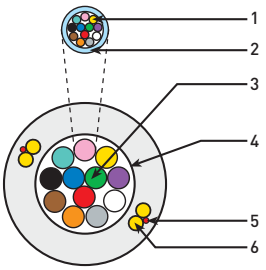
JetLanOptic

General Cable

Ultra-compact dielectric µSHEATH® access cable

(for laying in micro-ducts)

European standards series EN 60794, International standards series IEC 60794, IEC 60331, IEC 60332



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 3 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded G 652 singlemode optical fibres (consult us for other fiber types).

2 - Colour-coded waterblocked µSHEATH® units containing 12 fibers.

3 - Bundle of µSHEATH® units + water-swellable elements for watertightness ("dry" design favouring cable handling and preparation).

4 - Tape

5 - Optional ripcords (please contact us)

6 - Dielectric strength members are embedded in a black polyethylene outer sheath.

7 - PE outer sheath

TRANSMISSION CHARACTERISTICS

Fibre Count (1)	Modul. (1)	Weight kg/km	Outer Diameter mm	Mini. inner diameter micro-duct mm	Bending radius mm daN	Max. tensile load Installation / permanent	Delivery length km (2)
124	4x6	11	< 4.0	> 5.5	40	20 / 7	< 6 km
48	4x12	25	< 6.0	> 8	60	45 / 15	< 6 km
60 (3)	5x12	34	< 7.0	> 10	70	65 / 20	Consult us
72	6x12	43	< 7.8	> 12	80	85 / 25	< 4 km
144 (3)	12x12	55	< 9.5	> 12 (4) > 14 (5)	100	125 / 40	Consult us

(1) Other fibre counts possible under request (see next table).
(2) May depend on fibre type used. Please consult us.
(3) Cables under studies. Please consult us.
(4) For installation by water-floating.
(5) For installation by air-floating.

APPLICATIONS

µSHEATH® ACCESS cables are designed for distribution networks and local access. Due to their µSHEATH® structure, they are ultra-compact, very light, easy to handle, offer easy entry / fibre access (both at cable end and mid-span) and are suitable to both individual and mass-splicing.

Installation lengths in micro-ducts (6)	By air floating	By water floating
24, 48 y 60 O.F. µSHEATH® ACCESS cable	> 1000 m	> 1500 m
72 y 144 O.F. µSHEATH® ACCESS cable	> 2000 m	> 3000 m

(6) The laying length depends on the route configuration and the inner diameter of the duct.

These halogen free cables are fire retardant (according to IEC 60332-3), and emit low smoke quantities.

µSHEATH® cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

Maximum fibre-count versus modularity

Diameter (nominal) mm	4.0	6.0	7.0	7.8	9.5
Modularity: 2 O.F. / uni	18	24	34	48	(*)
Modularity: 4 O.F. / uni	16	36	44	64	96
Modularity: 6 O.F. / uni	24	42	54	72	120
Modularity: 8 O.F. / uni	24	48	64	72	128
Modularity: 12 O.F. / uni	–	48	60	72	144

(*) For modularity 2: please constact us.

DELIVERY CODES

C①② ③ M A C NGP

(①②)	(③) Type	(M)	(AC)	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	µSHEATH®	Distribution networks and local access.	Black

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

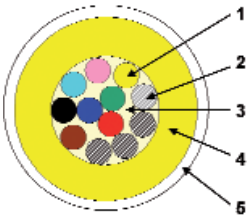
JetLanOptic

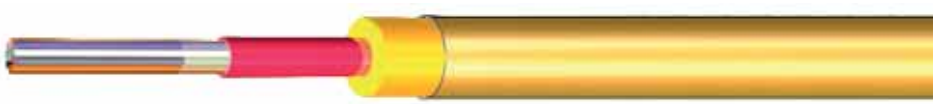
General Cable

Blown access unit up to12 fibres

European standards series EN 60794, International standards series IEC 60794

Marking: Year - Fibre count - Fibre type - General Cable + metric marking





5 4 1 3 3 2 3 2 4

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G655,...), or multimode 50/125 or 62.5/125.

2 - Uncoloured strength members replacing missing optical fibres if fibre count < 12.

3 - Filling compound.

4 - Thermoplastic inner sheath - Colour upon request.

5 - Low friction transparent outer sheath

APPLICATIONS

This cable is used for indoor and outdoor installation, laid in trough or blown in micro-ducts(1). It can be used also as jumpers in racks and cabinets.
This dielectric cable is watertight and halogen-free.
Due to its µSHEATH® structure, this cable is ultra-compact, very light, easy to handle, offer easy entry / fibre access (both cable end and mid-span) and is suitable to both individual and mass-splicing.
Fibre access is realised using a classical stripping tool for the outer sheath, and without any tool for the inner sheath.

(1) maximum distance for blowing depending on the micro-duct (type and size), on the route configuration (number and severity of turns) and on the laying device (blowing, air or water-floating) used. The minimum laying length, for example, is 1000 m by air-floating inside a micro-duct having an inner diameter of 3.8 mm (outer diameter = 5.0 mm).

TRANSMISSION CHARACTERISTICS

Fibre Count	Weight kg/km	Outer diameter mm	Bending & kinking radius mm	Max. tensile load Installation / permanent daN	Crush perform. daN/cm	Delivery length km (2)	Sheath
< 12	4	2.0	30	7 / 1	2	< 2.05	halogen free

(2) May depend on fibre type used. Please consult us. Consúltenos.

DELIVERY CODES

C①② ③ M L I CRP

(①②)	(③) Type	(M)	(L) Sheath	(I) Armouring	(CRP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	µSHEATH®	Thermoplastic LSZH	Indoor installation	Ivory

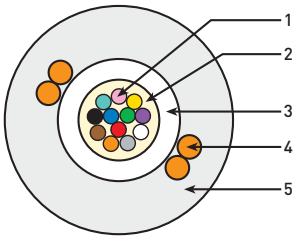
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Access µCable up to 12 fibres

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 2 3 3 3 3 3

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G655,...), or multimode 50/125 or 62.5/125.

2 - Filling compound.

3 - PBT loose tube.

4 - Dielectric strength members.

5 - Outer sheath
(Indoor option: Low smoke, Halogen free thermoplastic LSOH - Standard colour: ivory. Outdoor option: PE sheath - Standard colour: black)

For specific requirements, please contact us.

TRANSMISSION CHARACTERISTICS

Fibre count	Weight kg/km	Outer diameter mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (2)	Sheath
Indoor access µCABLES < 12 O.F.						
< 12	16	3.8 +/- 0.2	30	22 / 7	< 5 km	Halogen free & flame-retardant
Outdoor access µCABLES < 12 O.F.						
< 12	13	3.8 +/- 0.2	30	23 / 7	< 5 km	Watertight

(4) Other fibre counts possible under request.
(5) May depend on fibre type used. Please consult us.

APPLICATIONS

This µCABLE (micro-cable) is proposed with two options:
- Halogen free, flame-retardant indoor option for installation in buildings, laying in trough and blowing in micro-ducts(1);
- Watertight outdoor option for pulling, blowing, air and water-floating in micro-ducts(1).

Due to its structure closed to Silec Cable µSHEATH® and UNIGAINE® designs, this cable is ultra-compact, very light, easy to handle, offer easy entry / fibre access (both cable end and mid-span) and is suitable to both individual and mass-splicing.

(1) Maximum distance for blowing depending on the micro-duct (type and size) and on the route configuration.

DELIVERY CODES

C①② ③ ④ ⑤ ⑥

(①②)	(③) Type	(④)	(⑤) Sheath	(⑥) Colour
Fibres	(6) 62,5/125	(M) µSHEATH®	(L) Thermoplastic LSZH	(CRP) Ivory
	(5) 50/125	(T) Loose Tube	(P) PE	(NGP) Black
	(3) 50/125 (OM3)			
	(9) G652			

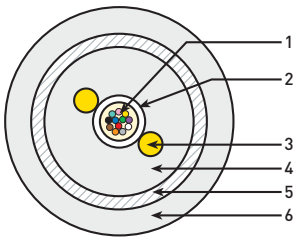
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Dielectric Unigaine® cable for ducts, direct burial, installation in troughs,...

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 5 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G 652, G 655,...) or multimode 50/125 or 62.5/125.

2 - Jelly filled loose tube containing up to 12 optical fibres.

3 - Opposite dielectric strength members (FRP) + swellable powder for watertightness.

4 - Black HDPE inner sheath.

5 - Glass yarns armour giving high-tensile, high-crush and rodent retardancy performance.

6 - Black HDPE outer sheath

For specific requirements, please contact us.

TRANSMISSION CHARACTERISTICS

Fibre count	Weight kg/km	Ø mm	Bending radius mm	Max. tensile load Installation / permanent daN	Crush test daN/cm	Impact test N.m	Water-tightness	Delivery length km (1)
1-12	90	9.6	120	265 / 88	40	20	Yes	1-6

(1) May depend on fibre type used. Please consult us.

Temperature range
- Storage: de -30 up to +70 °C
- Installation: de -5 up to +5 °C (between -5 and +5 °C a previous storage at +20 °C during 24 hours is recommended)
- Operating: -30 up to +70 °C

APPLICATIONS

This cable is suited to every kind of communication network: long haul backbones, metro rings, distribution and local access. Its compactness brings benefits for installation.
This cable is rodent-retardant.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

DELIVERY CODES

C①② ③ U P F NGP

(①②)	(③) Type	(U)	(P) Sheath	(F) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	UNIGAINE®	PE	Glass yarn	Black

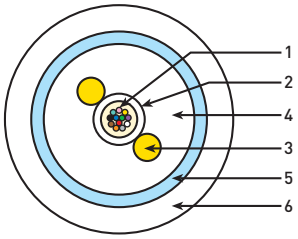
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Metal-armoured Unigaine® cable for direct burial, installation in sewers or troughs

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 4 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G 652, G 655,...) or multimode 50/125 or 62.5/125.

2 - Jelly filled loose tube containing up to 12 optical fibres.

3 - Opposite dielectric strength members (FRP) + swellable powder for watertightness.

4 - Black HDPE inner sheath.

5 - Corrugated steel armour bonded to outer sheath giving radial watertightness, high-crush performance and rodent resistance.

6 - Black HDPE outer sheath

For specific requirements, please contact us.

APPLICATIONS

This cable is suited to every kind of communication network: long haul backbones, metro rings, distribution and local access. Its compactness brings benefits for installation.
This cable is rodent-resistant.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Fibre count	Weight kg/km	Ø mm	Bending radius mm	Max. tensile load Installation / permanent daN	Crush test daN/cm	Impact test N.m	Water-tightness	Delivery length km (1)
1-12	125	10.6	135	120 / 60	45	20	Yes	1-6

(1) May depend on fibre type used. Please consult us.

Temperature range
- Storage: de -30 up to +70 °C
- Installation: de -5 up to +5 °C (between -5 and +5 °C a previous storage at +20 °C during 24 hours is recommended)
- Operating: -30 up to +70 °C

DELIVERY CODES

C①② ③ U P S NGP

(①②)	(③) Type	(U)	(P) Sheath	(S) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	UNIGAINE®	PE	Corrugated steel	Black

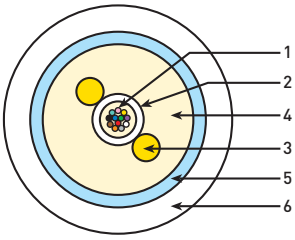
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Indoor/outdoor dielectric Unigaine® cable

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 3 3 3 3 2 3[1] 4

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G 652, G 655,...) or multimode 50/125 or 62.5/125.

2 - Jelly filled loose tube containing up to 12 optical fibres.

3 - Opposite dielectric strength members (FRP) + optional(1) swellable powder for watertightness.

4 - Yvory halogen free thermoplastic sheath (LSZH).

For specific requirements, please contact us.

APPLICATIONS

This 100 % dielectric cable is suited to every kind of communication network: metro rings, distribution, local access and FTTH. Its compactness brings benefits for installation.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

(1) Watertightness: optional

TRANSMISSION CHARACTERISTICS

Fibre count	Weight kg/km	Ø mm	Bending radius mm	Max. tensile load Installation / permanent daN	Crush test daN/cm	Impact test N.m	Water-tightness	Delivery length km(2)
1-12	50	6..5	70	95 / 32	20	5	Optional(3)	1-10

(2) May depend on fibre type used. Please consult us.
(3) Depending on the O.F. type used.

Temperature range
- Storage: de -30 up to +70 °C
- Installation: de -5 up to +5 °C (between -5 and +5 °C a previous storage at +20 °C during 24 hours is recommended)
- Operating: -30 up to +70 °C

Fire performance
- Halogen free flame retardant cable compliant to NFC 32 070 / C2 or to IEC 60 332 - 1.

DELIVERY CODES

C①② ③ U L I CRP

(①②)	(③) Type	(U)	(L) Sheath	(I)	(CRP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	UNIGAINE®	Thermoplastic LSZH 332-1	Indoor installation	Ivory

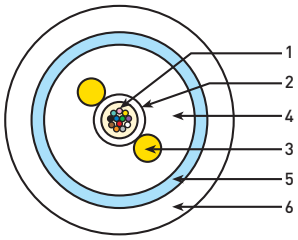
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Halogen-free armoured Unigaine® cable protected against fire hazards

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 4 3 3 4 4 4[1] 5

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G 655,...), or multimode 50/125 or 62.5/125.

2 - Jelly filled tube containing up to 12 fibres.

3 - Dielectric strength members.

4 - Inner, halogen free, flame-retardant thermoplastic sheath (LSOH)(1).

5 - Corrugated steel armour bonded to the outer sheath giving transversal watertightness.

6 - Outer, halogen free, flame-retardant - LSOH- sheath (standard colour: black).

For specific requirements, please contact us.

TRANSMISSION CHARACTERISTICS

Fibre count	Weight kg/km	Outer diameter mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (2)
1-12	160	11	145	120 / 60	1-6

(2) May depend on fibre type used. Please consult us.

Temperature range
- Storage: de -30 up to +70 °C
- Installation: de -5 up to +5 °C (between -5 and +5 °C a previous storage at +20 °C during 24 hours is recommended)
- Operating: -30 up to +70 °C

APPLICATIONS

These cables are designed for installation in trough, shelf rail, cable tunnel,... for optical links in tunnels, subways,... requiring high performance against fire propagation (tests according to C1 NF C 32 070 or IEC 60332-3), with low smoke density, low toxicity and low corrosivity. Their corrugated steel armour insures a high protection against mechanical aggression and rodent attacks. Its high compactness results in very cost effective installation.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

(1) Watertightness: optional

DELIVERY CODES

C①② ③ U L S NGP

(①②)	(③) Type	(U)	(L) Sheath	(S) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	UNIGAINE®	Thermoplastic LSZH 332-1	Corrugated steel	Black

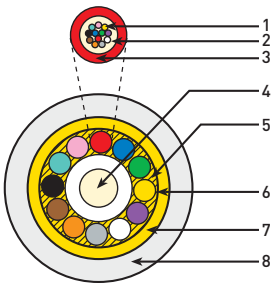
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Dielectric loose tube cable for ducts

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 4 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G 655,...), or multimode 50/125 or 62.5/125.

2 - Filling compound.

3 - Colour-coded thermoplastic tubes (containing 4, 6, 8 or 12 optical fibres) or fillers (replacing tubes without fibres).

4 - Central high-modulus dielectric strength member + optional coating.

5 - Longitudinal watertightness (standard: “clean cables” using swellable materials/elements - optional: jelly filling - consult us).

6 - Binders + optional tape.

7 - Peripheral all dielectric strength member (standard: glass yarns - optional: aramid yarns).

8 - HDPE outer sheath (standard colour: black).

For specific requirements, please contact us.

APPLICATIONS

These all-dielectric cables are designed for pulling in rigid thermoplastic ducts for high debit rate links, either for local networks or long haul networks.

These cables can be custom-adapted for specific requirements or to comply with Operator’s Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Num. of elements (tubes or fillers)	Fibre count (1)	Weight kg/km (2)	Outer diameter (2) mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (3)
6	6-72	105	11,5	115	315 / 105	< 10 km
12	72-144	210	17,0	170	630 / 210	< 7 km

(1) Depending on the modularity (4, 6, 8 or 12 fibres/tube). Contact us for other fibre-counts (possibly higher).
(2) Downsized models can be offered. Please enquire.
(3) May depend on fibre type used. Please consult us.

DELIVERY CODES

C①② ③ T P F NGP

(①②)	(③) Type	(T)	(P) Sheath	(F) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	Loose Tube	High density PE	Dielectric	Black

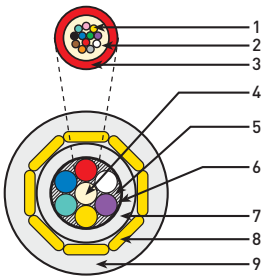
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Dielectric loose tube cable for multi-purpose (duct, trough, direct burial, aerial, rodent-resistant,...)

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 5 3 3 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G 655,...), or multimode 50/125 or 62.5/125.

2 - Filling compound.

3 - Colour-coded thermoplastic tubes (containing 4, 6, 8 or 12 optical fibres) or fillers (replacing tubes without fibres).

4 - Central high-modulus dielectric strength member + optional coating.

5 - Longitudinal watertightness (standard: "clean cables" using swellable materials/elements - optional: jelly filling - consult us).

6 - Binders + optional tape.

7 - PE inner sheath.

8 - Rigid dielectric armour constituted of stranded flat GRP elements.

9 - HDPE outer sheath (standard colour: black)

For specific requirements, please contact us.

APPLICATIONS

These all-dielectric cables are designed for pulling in rigid thermoplastic ducts, for direct burial and trough. They are also designed for aerial installation for span up to 80 m using specific devices for clamping on poles (please enquire).
Their double sheathing and the rigid dielectric armour insure a high protection against mechanical aggression, rodent attacks and shotgun damages.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Num. of elements (tubes or fillers)	Fibre count (1)	Weight kg/km (2)	Outer diameter (2) mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (3)
6	6 -72	230	16	200	1250 / 730	Consult us

(1) Depending on the modularity (4, 6, 8 or 12 fibres/tube). Contact us for other fibre-counts (possibly higher).
(2) Downsized models can be offered. Please enquire.
(3) May depend on fibre type used. Please consult us.

DELIVERY CODES

C①② ③ T P G NGP

(①②)	(③) Type	(T)	(P) Sheath	(F) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	Loose Tube	High density PE	Dieléctrica GRP	Black

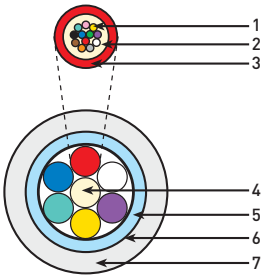
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Halogen-free armoured loose cable protected against fire hazards

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 4 3 3 4 4 3[1] 4

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G 655,...), or multimode 50/125 or 62.5/125.

2 - Filling compound.

3 - Colour-coded thermoplastic tubes (containing 4, 6, 8 or 12 optical fibres) or fillers (replacing tubes without fibres).

4 - Central high-modulus dielectric strength member + optional coating.

5 - Binders + optional tape + optional watertightness ("clean cable" using swellable materials/elements).

6 - Copolymer-coated corrugated steel armour bonded to the outer sheath, giving transversal watertightness.

7 - Halogen-free fire retardant (LSZH) outer (standard colour: black).

For specific requirements, please contact us.

APPLICATIONS

These cables are designed for installation in trough, shelf rail, cable tunnel,... for optical links in tunnels, subways,... requiring high performance against fire propagation (tests according to C1 NF C 32 070 or IEC 60332-3), with low smoke density, low toxicity and low corrosivity. These cables are used by the French RATP subways.
Their corrugated steel armour insures a high protection against mechanical aggression and rodent attacks.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Num. of elements (tubes or fillers)	Fibre count (1)	Weight kg/km (2)	Outer diameter (2) mm	Bending radius mm	Max. tensile load Installation / permanent daN	Delivery length km (3)
6	6-72	210	12,5	150	200 / 100	Consult us

(2) Depending on the modularity (4, 6, 8 or 12 fibres/tube). Contact us for other fibre-counts (possibly higher).
(3) Downsized models can be offered. Please enquire.
(4) May depend on fibre type used. Please consult us.

DELIVERY CODES

C①② ③ T L S NGP

(①②)	(③) Type	(T)	(L) Sheath	(S) Armouring	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	Loose Tube	Thermoplastic LSZH IEC 332-3	Corrugated steel	Black

(1) Watertightness: optional

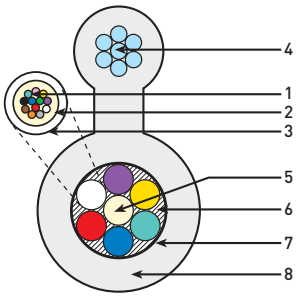
General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

JetLanOptic

General Cable

Aerial loose tube cable

European standards series EN 60794, International standards series IEC 60794



Marking: Year - Fibre count - Fibre type - General Cable + metric marking

5 3 3 4 4 4 3 4 1

CONSTRUCTION

1 - Colour-coded optical fibres, of any type, singlemode (G652, G 655, ...), or multimode 50/125 or 62.5/125.

2 - Filling compound.

3 - Colour-coded thermoplastic tubes (containing 4, 6, 8 or 12 optical fibres) or fillers (replacing tubes without fibres).

4 - Galvanised steel messenger.

5 - Central high-modulus dielectric strength member + optional coating.

6 - Longitudinal watertightness (standard: "clean cables" using swellable materials/elements - optional: jelly filling - consult us).

7 - Binders + optional tape.

8 - PE outer sheath (standard colour: black)

For specific requirements, please contact us.

APPLICATIONS

These cables are suitable for aerial installation. The standard design is adapted for span length up to 60 m. In case of particular conditions of installation (important level change, hard climatic conditions, ...) a special design has to be defined. Installation and clamping on poles are realised using similar techniques and devices as those needed for self-supported copper telecom cables. Fibre splicing is realised in closures fixed on the poles.

These cables can be custom-adapted for specific requirements or to comply with Operator's Technical Specifications. Please contact us.

TRANSMISSION CHARACTERISTICS

Fibre count (1)	Messenger cross section mm (2)	Outer dimensions (3) Height mm	Outer dimensions (3) Width mm	Weight kg/km	Bending radius mm	Max. permanent tensile load, daN
6-72	5,5 2	19	11	160	150	240

(1) Depending on the modularity (4, 6, 8 or 12 fibres/tube). Contact us for other fibre-counts (possibly higher).
(2) Messenger cross section for usual installation conditions. Please enquire for other cross sections (for example for other span lengths or other climatic conditions) and for other types of messenger (for example non-metallic messengers).
(3) Downsized models can be offered. Please enquire.

DELIVERY CODES

C①② ③ T P A NGP

(①②)	(③) Type	(T)	(P) Sheath	(A)	(NGP) Colour
Fibres	(6) 62,5/125 (5) 50/125 (3) 50/125 (OM3) (9) G652	Loose Tube	High density PE	Self-supported	Black

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Optical patchpanels

Our patchpanels are made from cold formed steel and finished with a black electrostatic layer. The extractable tray allows for easy internal access and wiring and the panels can accommodate ST & Duplex SC format adaptors; they have three fibre optic cable ports at the rear. 19" 1U height rack mount. Supplied with the accessories required to sustain the fibre optic cables (fibre guide, flanges, compression glands, plugs).

PANELS for ST Adaptors

Code	Description	Packing
CFPPOSTNGP	Vacant 24 ST port 19" 1U fibre optic panel	1

PANELS for SC Adaptors

Referencia	Description	Packing
CFPPOSCNGP	Vacant 16 duplex SC port 19" 1U fibre optic panel	1

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Optical fibre cassettes, supports and protectors
Optical fibre wall-box

Optical fibre cassettes, supports and protectors. These products enable us to accommodate and protect splices made mechanically or by fusion inside the patchpanels and wall-boxes; available on metallic or plastic material.

OPTICAL FIBRE CASSETTES, SUPPORTS AND PROTECTORS		
Code	Description	Packing
CCFPPSPE99P	Plastic 12-unit splice support	1
CFPPCSE99P	Metal 12-unit splice cassette	1
CFPPCS299P	Plastic 24-unit splice cassette	1
CFPPTB499P	40 mm splice protector	25
CFPPTB599P	45 mm splice protector	25
CFPPTB699P	60 mm splice protector	25

Optical fibre wall-box. Wall-boxes are an efficient solution in fibre-optic installations where we cannot use distribution racks. Fitted with a vacant extractable panel to accommodate twelve ST adaptors or twelve Duplex SC adaptors. Made from black 1.2 mm thick steel, with die-cast sides for compression glands and fibre-guides for the correct internal distribution of the optical fibres.

SPLICE CASSETTES		
Code	Description	Packing
CFMUOST99P	Vacant 12 ST port optical fibre panel (measuring 22 x 22 x 4.5 cm)	1
CFMUOCC99P	Fibre optic panel with 12 vacant Duplex SC ports (measuring 22 x 22 x 4.5 cm)	1

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Optical connectors

Optical ST connectors. ST connectors are supplied with PC, SPC or UPC finish, for multimode and single mode. The connectors have a metallic casing with a bayonet-type fastening system, including caps, Zipcord fibre metallic crimping sleeve and dust-cap. This connector takes fibres with a 250 µm or 900 µm sheath and 2.4 mm & 3 mm Zipcord, 128 µm diam. Zirconium ferrule. It has a cold curing Epoxy/Anaerobic connection system. It complies with ANSI/TIA/EIA 568-B.3 standard. Insertion losses MM=0.5 dB and SM=0.3 dB. The operation and storage temperature range is between -40°C and +80°C.

ST CONNECTORS		
Code	Description	Packing
CFCSTMS99P	Zirconium ST multimode connector	1
CFCSTSS99P	Zirconium ST/PC single mode connector	1

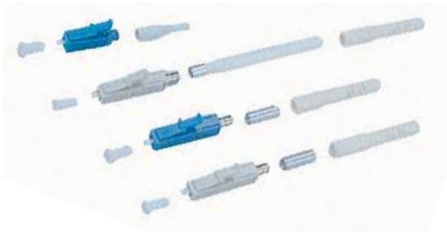
Optical SC connectors. SC connectors are supplied with PC, SPC, UPC or APC finish, for multimode and single mode. The connectors have a plastic casing with a PUSH/PULL-type fastening system, including caps, Zipcord fibre metallic crimping sleeve and dust-cap. This connector takes fibres with a 250 µm or 900 µm sheath and 2.4 mm & 3 mm Zipcord, 128 µm diam. Zirconium ferrule. It has a cold curing Epoxy/Anaerobic connection system. It complies with ANSI/TIA/EIA 568-B.3 standard. Insertion losses: MM=0.5 dB and SM=0.3 dB. The operation and storage temperature range is between -40°C and +80°C.

SC CONNECTORS		
Code	Description	Packing
CFCSCMS99P	SC/PC multimode connector	1
CFCSCMD99P	SC/PC single mode connector	1

Optical MT-RJ connectors. SFF (small form factor) MT/RJ connectors are compatible with multimode and single mode fibres. This connector includes a small pre-polished 900 mm internal fibre. It complies with ANSI/TIA/EIA 568A and IEC 60874 standards. Typical insertion losses: MM=0.40 dB and SM=0.30 dB.

MT-RJ CONNECTORS		
Code	Description	Packing
CFCMTMS99P	MT/RJ multimode connector	1
CFCMTSS99P	MT/RJ single mode connector	1

Optical LC connectors. The LC connectors are high-density (SFF) and they are designed to enable us to reduce the space for the connections. This connector complies with IEC 60874 standards. Available with SPC and UPC polish finishing. Typical insertion losses = 0.20 dB.



LC CONNECTORS		
Code	Description	Packing
CFCMTMS99P	LC multimode connector	1
CFCMTSS99P	LC single mode connector	1

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Optical adaptors

Optical ST adaptors. Optical ST adaptors are the interface between the cable and the patchcords to enable devices to be connected, as they are easy to install. The adaptor protection is Zinc Die-cast with a bayonet-type fastening system. The inner sleeve is made from Phosphor/ Bronze for multi-mode fibres and Zirconium or Phosphor/Bronze for single mode fibres. It complies with ANSI/TIA/EIA 568-B.3 standards. The operation and storage temperature range is between -40°C and +80°C.

ST ADAPTORS		
Code	Description	Packing
CFASTMS99P	Phosphor/Bronze ST multimode adaptor	1
CFASTSS99P	Phosphor/Bronze ST/PC single mode adaptor	1

Optical SC adaptors. Optical SC adaptors are the interface between the cable and the patchcords to enable devices to be connected, as they are easy to install. The protection of the adaptor is plastic, complying with UL standards. Colour coding for the adaptor: Beige for multimode, Blue for single mode and Green for APC single mode. The inner sleeve is made from Phosphor/Bronze for multimode fibres and Zirconium or Phosphor/Bronze for single mode fibres. Simplex or Duplex format with a PUSH/PULL-type coupling system. This adaptor complies with ANSI/TIA/EIA 568-B.3 & JIS C5970 FO4 SC standards. The operation and storage temperature range is between -40°C and +80°C.

SC ADAPTORS		
Code	Description	Packing
CFASCMS99P	Phosphor/Bronze Simplex SC multimode adaptor	1
CFASCMD99P	Phosphor/Bronze Duplex SC multimode adaptor	1
CFASCSD99P	Phosphor/Bronze Duplex SC/PC single mode adaptor	1
CFASASD99P	Ceramic Duplex SC/APC single mode adaptor	1

Optical MT-RJ adaptors. SFF (small form factor) MT/RJ adaptors are available for multimode and single mode fibres. The body is polymeric and takes two fibres.

MT-RJ ADAPTORS		
Code	Description	Packing
CFAMTMS99P	MT/RJ multimode adaptor	1
CFAMTMS99P	MT/RJ single mode adaptor	1

Optical LC adaptors. The LC adaptors are Duplex and the interior has ceramic (Zirconium) sleeves for single mode fibres and Phosphorus/Bronze for multimode fibres to enable the connector's ferrules to be aligned and losses to be minimised. The body is polymeric.

LC ADAPTORS		
Code	Description	Packing
CFALCMD99P	Duplex LC multimode adaptor	1
CFALCSD99P	Duplex LC single mode adaptor	1

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JetLanOptic

General Cable

62,5/125µm multimode optical patchcords

JetLan patchcords are used for connections of work stations to the devices or from the active network equipment to the patchpanels. Construction using 62.5/125 µm multimode Zipcord fibres for single-fibre, 2.4 mm and 3 mm twin-fibres. The cords can be fitted with ST, SC, MT-RJ and LC connectors. Insertion loss in multimode < 0.35 dB. Coupled pair insertion loss in multimode < 0.60 dB (typically 0.25 dB). Operation/storage temperature range is -40°C to +80°C

Code	Description	Packing
62.5/125 µm multimode patchcords		
Simplex ST / ST		
CF6TTS199P	SIMPLEX ST-ST, 1m	1
CF6TTS299P	SIMPLEX ST-ST, 2m	1
CF6TTS399P	SIMPLEX ST-ST, 3m	1
Simplex SC / SC		
CF6CCS199P	SIMPLEX SC-SC, 1m	1
CF6CCS299P	SIMPLEX SC-SC, 2m	1
CF6CCS399P	SIMPLEX SC-SC, 3m	1
Simplex ST / SC		
CF6CTS199P	SIMPLEX ST-SC, 1m	1
CF6CTS299P	SIMPLEX ST-SC, 2m	1
CF6CTS399P	SIMPLEX ST-SC, 3m	1
Simplex LC / LC		
CF6LLS199P	SIMPLEX LC-LC, 1m	1
CF6LLS299P	SIMPLEX LC-LC, 2m	1
CF6LLS399P	SIMPLEX LC-LC, 3m	1
Simplex SC / LC		
CF6CLS199P	SIMPLEX SC-LC, 1m	1
CF6CLS299P	SIMPLEX SC-LC, 2m	1
CF6CLS399P	SIMPLEX SC-LC, 3m	1
Simplex ST / LC		
CF6LTS199P	SIMPLEX LC-ST, 1m	1
CF6LTS299P	SIMPLEX LC-ST, 2m	1
CF6LTS399P	SIMPLEX LC-ST, 3m	1
Duplex MT-RJ / MT-RJ		
CF6MMD199P	DUPLEX MTRJ-MTRJ, 1m	1
CF6MMD299P	DUPLEX MTRJ-MTRJ, 2m	1
CF6MMD399P	DUPLEX MTRJ-MTRJ, 2m	1
Duplex MT-RJ / SC		
CF6CMD199P	DUPLEX MTRJ-SC, 1m	1
CF6CMD299P	DUPLEX MTRJ-SC, 2m	1
CF6CMD399P	DUPLEX MTRJ-SC, 3m	1

Code	Description	Packing
62.5/125 µm multimode patchcords		
Duplex ST / ST		
CF6TTD199P	DUPLEX ST-ST, 1m	1
CF6TTD299P	DUPLEX ST-ST, 2m	1
CF6TTD399P	DUPLEX ST-ST, 3m	1
Duplex SC / SC		
CF6CCD199P	DUPLEX SC-SC, 1m	1
CF6CCD299P	DUPLEX SC-SC, 2m	1
CF6CCD399P	DUPLEX SC-SC, 3m	1
Duplex ST / SC		
CF6TCD199P	DUPLEX ST-SC, 1m	1
CF6TCD299P	DUPLEX ST-SC, 2m	1
CF6TCD399P	DUPLEX ST-SC, 3m	1
Duplex LC / LC		
CF6LLD199P	DUPLEX LC-LC, 1m	1
CF6LLD299P	DUPLEX LC-LC, 2m	1
CF6LLD399P	DUPLEX LC-LC, 3m	1
Duplex SC / LC		
CF6CLD199P	DUPLEX SC-LC, 1m	1
CF6CLD299P	DUPLEX SC-LC, 2m	1
CF6CLD399P	DUPLEX SC-LC, 3m	1
Duplex ST / LC		
CF6LTD199P	DUPLEX LC-ST, 1m	1
CF6LTD299P	DUPLEX LC-ST, 2m	1
CF6LTD399P	DUPLEX LC-ST, 3m	1
Duplex MT-RJ / LC		
CF6LMD199P	DUPLEX MTRJ-LC, 1m	1
CF6LMD299P	DUPLEX MTRJ-LC, 2m	1
CF6LMD399P	DUPLEX MTRJ-LC, 3m	1
Duplex MT-RJ / ST		
CF6MD199P	DUPLEX MTRJ-ST, 1m	1
CF6MD299P	DUPLEX MTRJ-ST, 2m	1
CF6MD399P	DUPLEX MTRJ-ST, 3m	1

[Comments: Contact us for other patchcord lengths or connectors]

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JetLanOptic

General Cable

50/125µm multimode optical patchcords

JetLan patch cords are used for connections of work stations to the devices or from the active network equipment to the patchpanels. Construction using 50/125 µm multimode Zipcord fibres for single-fibre, 2.4 mm and 3 mm twin-fibres. The cords can be fitted with ST, SC, MT-RJ and LC connectors. Insertion loss in multimode < 0.35 dB. Coupled pair insertion loss in multimode < 0.60 dB (typically 0.25 dB). Operation/storage temperature range is -40°C to +80°C.

Code	Description	Packing	Code	Description	Packing
50/125 µm multimode patchcords			**50/125 µm multimode patchcords**		
Simplex ST / ST			Duplex ST / ST		
CF5TTS199P	SIMPLEX ST-ST, 1m	1	CF5TTD199P	DUPLEX ST-ST, 1m	1
CF5TTS299P	SIMPLEX ST-ST, 2m	1	CF5TTD299P	DUPLEX ST-ST, 2m	1
CF5TTS399P	SIMPLEX ST-ST, 3m	1	CF5TTD399P	DUPLEX ST-ST, 3m	1
Simplex SC / SC			Duplex SC / SC		
CF5CCS199P	SIMPLEX SC-SC, 1m	1	CF5CCD199P	DUPLEX SC-SC, 1m	1
CF5CCS299P	SIMPLEX SC-SC, 2m	1	CF5CCD299P	DUPLEX SC-SC, 2m	1
CF5CCS399P	SIMPLEX SC-SC, 3m	1	CF5CCD399P	DUPLEX SC-SC, 3m	1
Simplex ST / SC			Duplex ST / SC		
CF5CTS199P	SIMPLEX ST-SC, 1m	1	CF5TCD199P	DUPLEX ST-SC, 1m	1
CF5CTS299P	SIMPLEX ST-SC, 2m	1	CF5TCD299P	DUPLEX ST-SC, 2m	1
CF5CTS399P	SIMPLEX ST-SC, 3m	1	CF5TCD399P	DUPLEX ST-SC, 3m	1
Simplex LC / LC			Duplex LC / LC		
CF5LLS199P	SIMPLEX LC-LC, 1m	1	CF5LLD199P	DUPLEX LC-LC, 1m	1
CF5LLS299P	SIMPLEX LC-LC, 2m	1	CF5LLD299P	DUPLEX LC-LC, 2m	1
CF5LLS399P	SIMPLEX LC-LC, 3m	1	CF5LLD399P	DUPLEX LC-LC, 3m	1
Simplex SC / LC			Duplex SC / LC		
CF5CLS199P	SIMPLEX SC-LC, 1m	1	CF5CLD199P	DUPLEX SC-LC, 1m	1
CF5CLS299P	SIMPLEX SC-LC, 2m	1	CF5CLD299P	DUPLEX SC-LC, 2m	1
CF5CLS399P	SIMPLEX SC-LC, 3m	1	CF5CLD399P	DUPLEX SC-LC, 3m	1
Simplex ST / LC			Duplex ST / LC		
CF5LTS199P	SIMPLEX LC-ST, 1m	1	CF5LTD199P	DUPLEX LC-ST, 1m	1
CF5LTS299P	SIMPLEX LC-ST, 2m	1	CF5LTD299P	DUPLEX LC-ST, 2m	1
CF5LTS399P	SIMPLEX LC-ST, 3m	1	CF5LTD399P	DUPLEX LC-ST, 3m	1
Duplex MT-RJ / MT-RJ			Duplex MT-RJ / LC		
CF5MMD199P	DUPLEX MTRJ-MTRJ, 1m	1	CF5LMD199P	DUPLEX MTRJ-LC, 1m	1
CF5MMD299P	DUPLEX MTRJ-MTRJ, 2m	1	CF5LMD299P	DUPLEX MTRJ-LC, 2m	1
CF5MMD399P	DUPLEX MTRJ-MTRJ, 2m	1	CF5LMD399P	DUPLEX MTRJ-LC, 3m	1
Duplex MT-RJ / SC			Duplex MT-RJ / ST		
CF5CMD199P	DUPLEX MTRJ-SC, 1m	1	CF5MD199P	DUPLEX MTRJ-ST, 1m	1
CF5CMD299P	DUPLEX MTRJ-SC, 2m	1	CF5MD299P	DUPLEX MTRJ-ST, 2m	1
CF5CMD399P	DUPLEX MTRJ-SC, 3m	1	CF5MD399P	DUPLEX MTRJ-ST, 3m	1

[Comments: Contact us for other patchcord lengths or connectors]

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

9/125µm single mode optical patchcords

JetLan patchcords are used for connections of work stations to the devices or from the active network equipment to the patchpanels. Construction using 9/125 µm single mode Zipcord fibres for single-fibre, 2.4 mm and 3 mm twin-fibres. The cords can be fitted with ST/PC & APC, SC/PC 6 APC, MT-RJ and LC/UPC connectors. Coupled pair return loss in single mode < 0.55 dB. Operation/storage temperature range is -40°C to +80°C.

Code	Description	Packing	Code	Description	Packing
9/125 µm single mode patchcords			**9/125 µm single mode patchcords**		
Simplex ST / ST			Duplex ST / ST		
CF9TTS199P	SIMPLEX ST-ST, 1m	1	CF9TTD199P	DUPLEX ST-ST, 1m	1
CF9TTS299P	SIMPLEX ST-ST, 2m	1	CF9TTD299P	DUPLEX ST-ST, 2m	1
CF9TTS399P	SIMPLEX ST-ST, 3m	1	CF9TTD399P	DUPLEX ST-ST, 3m	1
Simplex SC / SC			Duplex SC / SC		
CF9CCS199P	SIMPLEX SC-SC, 1m	1	CF9CCD199P	DUPLEX SC-SC, 1m	1
CF9CCS299P	SIMPLEX SC-SC, 2m	1	CF9CCD299P	DUPLEX SC-SC, 2m	1
CF9CCS399P	SIMPLEX SC-SC, 3m	1	CF9CCD399P	DUPLEX SC-SC, 3m	1
Simplex ST / SC			Duplex ST / SC		
CF9CTS199P	SIMPLEX ST-SC, 1m	1	CF9TCD199P	DUPLEX ST-SC, 1m	1
CF9CTS299P	SIMPLEX ST-SC, 2m	1	CF9TCD299P	DUPLEX ST-SC, 2m	1
CF9CTS399P	SIMPLEX ST-SC, 3m	1	CF9TCD399P	DUPLEX ST-SC, 3m	1
Simplex LC / LC			Duplex LC / LC		
CF9LLS199P	SIMPLEX LC-LC, 1m	1	CF9LLD199P	DUPLEX LC-LC, 1m	1
CF9LLS299P	SIMPLEX LC-LC, 2m	1	CF9LLD299P	DUPLEX LC-LC, 2m	1
CF9LLS399P	SIMPLEX LC-LC, 3m	1	CF9LLD399P	DUPLEX LC-LC, 3m	1
Simplex SC / LC			Duplex SC / LC		
CF9CLS199P	SIMPLEX SC-LC, 1m	1	CF9CLD199P	DUPLEX SC-LC, 1m	1
CF9CLS299P	SIMPLEX SC-LC, 2m	1	CF9CLD299P	DUPLEX SC-LC, 2m	1
CF9CLS399P	SIMPLEX SC-LC, 3m	1	CF9CLD399P	DUPLEX SC-LC, 3m	1
Simplex ST / LC			Duplex ST / LC		
CF9LTS199P	SIMPLEX LC-ST, 1m	1	CF9LTD199P	DUPLEX LC-ST, 1m	1
CF9LTS299P	SIMPLEX LC-ST, 2m	1	CF9LTD299P	DUPLEX LC-ST, 2m	1
CF9LTS399P	SIMPLEX LC-ST, 3m	1	CF9LTD399P	DUPLEX LC-ST, 3m	1
Duplex MT-RJ / MT-RJ			Duplex MT-RJ / LC		
CF9MMD199P	DUPLEX MTRJ-MTRJ, 1m	1	CF9LMD199P	DUPLEX MTRJ-LC, 1m	1
CF9MMD299P	DUPLEX MTRJ-MTRJ, 2m	1	CF9LMD299P	DUPLEX MTRJ-LC, 2m	1
CF9MMD399P	DUPLEX MTRJ-MTRJ, 2m	1	CF9LMD399P	DUPLEX MTRJ-LC, 3m	1
Duplex MT-RJ / SC			Duplex MT-RJ / ST		
CF9CMD199P	DUPLEX MTRJ-SC, 1m	1	CF9MD199P	DUPLEX MTRJ-ST, 1m	1
CF9CMD299P	DUPLEX MTRJ-SC, 2m	1	CF9MD299P	DUPLEX MTRJ-ST, 2m	1
CF9CMD399P	DUPLEX MTRJ-SC, 3m	1	CF9MD399P	DUPLEX MTRJ-ST, 3m	1

[Comments: Contact us for other patchcord lengths or connectors]

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Multimode and single mode optical pigtails

JetLan pigtails are used to enable optical fibres to be connected by mechanical splicing or by fusion. Construction with 2.4 mm, 3 mm, 250 µm and 900 µm single fibres. The standard lengths are 1 and 2 metres. The patchcords can be fitted using ST, SC and LC connectors.

Code	Description	Packing
62.5/125 µm multimode pigtails		
ST Connectors		
CF6PTS199P	ST - 1m	1
SC Connectors		
CF6PCS199P	SC - 1m	1
LC Connectors		
CF6PLS199P	LC - 1m	
50/125 µm multimode pigtails		
ST Connectors		
CF5PTS199P	ST - 1m	
SC Connectors		
CF5PCS199P	SC - 1m	
LC Connectors		
CF5PLS199P	LC - 1m	
9/125 µm single mode pigtails		
ST/PC Connectors		
CF9PTS199P	ST / PC - 1m	
SC/PC Connectors		
CF9PCS199P	SC / PC - 1m	
LC/PC Connectors		
CF9PLS199P	LC / PC - 1m	

Code	Description	Packing
62.5/125 µm multimode pigtails		
ST Connectors		
CF6PTS299P	ST - 2m	1
SC Connectors		
CF6PCS299P	SC - 2m	1
LC Connectors		
CF6PLS299P	LC - 2m	1
50/125 µm multimode pigtails		
ST Connectors		
CF5PTS299P	ST - 2m	1
SC Connectors		
CF5PCS299P	SC - 2m	1
LC Connectors		
CF5PLS299P	LC - 2m	1
9/125 µm single mode pigtails		
ST/PC Connectors		
CF9PTS299P	ST / PC - 2m	1
SC/PC Connectors		
CF9PCS299P	SC / PC - 2m	1
LC/PC Connectors		
CF9PLS299P	LC / PC - 2m	1

[Comments: Contact us for other lengths for patchcords and connectors]

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

25
years

General Cable

25 years

General Cable Warranty Plan

25 years JetLan Cabling System

The warranty plan covers all the General Cable data transmission systems complying with Standards and Specifications such as ANSI/EIA/TIA 568B2, ANSI/EIA/TIA 568B3, ISO 11801, CENELEC EN 50173 and ANSI/EIA/TIA 568B2-1, and for this reason we may guarantee the design and transmission characteristics of every installation based on our cables and components (Copper or Optical Fibre) for a period of 25 years.

This warranty is conceded to installations made and tested as specified in the JetLan Warranty Certificate, which is presented to the owner of the installation by the JetLan certified installers.

General Cable aims through its Warranty Plan to offer updated information and training to all certified installers through technical courses and seminars.

APPLICATIONS

- Supports full and half duplex operation
- Digital/analogic video
- 16 Mbps Token Ring
- 100 Mbps TP-PMOD
- 100 BASE-T (IEEE 802.3)
- 1000 BASE-T (Gigabit Ethernet)
- 155/622 Mbps ATM
- 1.2 Gbps ATM

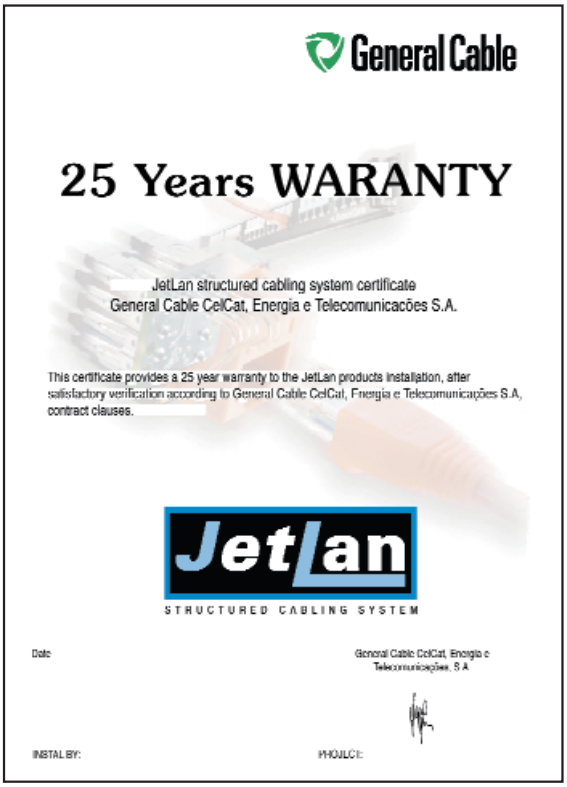
COMPLIANCES

ISO/IEC 11801 : 2002
EN 50173-1 : 2002
ANSI/TIA/EIA 568-B.2 (Category 5e)
ANSI/TIA/EIA 568-B.2-1 (Category 6)
Options UTP and FTP (Copper)

Special cable designs:
LSZH: EN 50268 and EN 50267-2-1
Exzhellent range: IEC 60332-3-24 and EN 50266-2-4 (fire retardant cable)

CERTIFICATION

EC Verified (DELTA)


General Cable

25 Years WARANTY

JetLan structured cabling system certificate
General Cable CelCat, Energia e Telecomunicacões S.A.

This certificate provides a 25 year warranty to the JetLan products installation, after satisfactory verification according to General Cable CelCat, Energia e Telecomunicações S.A, contract clauses.

JetLan
STRUCTURED CABLING SYSTEM

Date

General Cable CelCat, Energia e Telecomunicações, S.A.

INSTALLER:

PROJECT:

DELTA

COMPLIANCE STATEMENT

No. 2001-025 - Data communication cable

Company
General Cable CelCat
Av. Marquês de Pombal, 36
Moreleira
2715-055 Pêro Pinheiro
Portugal

Product description
Unshielded cable (UTP), characterised up to 500 MHz*
Horizontal floor wiring cable, 100 Ω
4 twisted pairs
24 AWG, flame retardant, PVC jacket

Product identification
UTP Category 6

Generic cabling standards, cable standards
- ISO/IEC 11801 2nd edition CD (2000)
- Draft ANSI/TIA/EIA-568-B.2-1
- prEN 50173:2001

Standards for flame retardancy
- IEC 60332-1

Technical report
DELTA-K311190, DANAK-1980732

Horsholm, 27 February 2001

Erik Bech
Test Manager

Jørgen Johansen
Department Manager

DELTA
Danish Electronics, Light & Acoustics
Venlighedsvej 4
DK 2970 Hørsholm
Denmark

www.delta.dk
VAT DK 12278110

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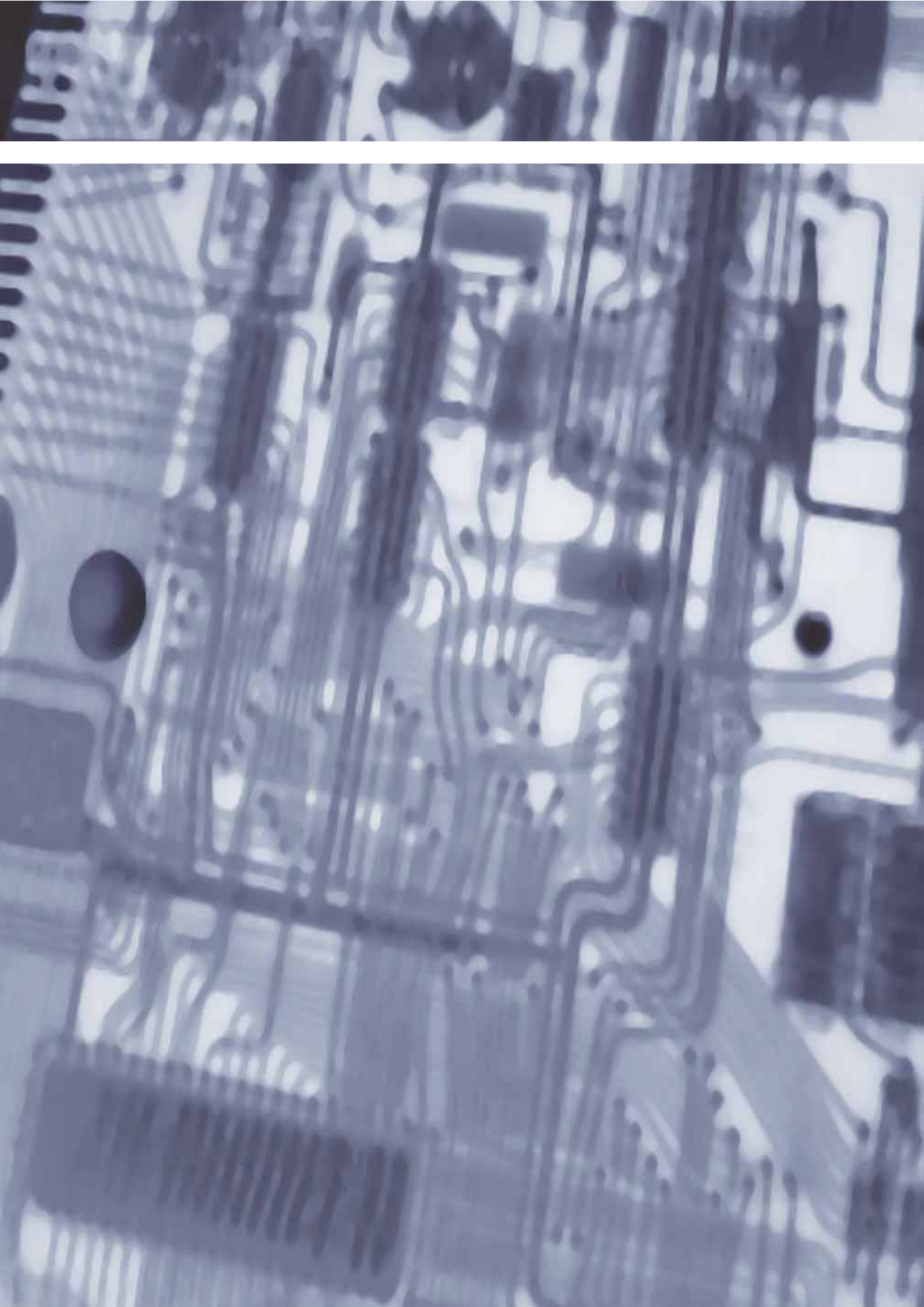

Communication cables

General Cable supplies a large range of communication cables, according to different specifications, for internal and external installations including drop-wires. The examples included in this catalogue correspond to our most usual markets but any other types may be considered on request.

General Cable

Internal Telephone Cable (CW1308)

CONSTRUCTION

Conductor	Solid annealed Copper conductors 0,4 or 0,5 mm
Insulation	PVC
Earth Conductor	Solid annealed Copper conductor 1,38 mm Ø *
Insulation Earth Conductor	PVC
Wrapping tape(s)	1 polyester
Ripcord	1 longitudinal ripcord
Sheath	PVC or LSF

* Suffix 'E' added to the cable type.

Note: screened version available (AL/PETP 9/23µm tape).

ELECTRICAL CHARACTERISTICS

Maximum conductor resistance (d.c.) at 20ºC (0,4 mmØ)	Ω/km	153,0
Maximum conductor resistance (d.c.) at 20ºC (0,5 mmØ)	Ω/km	97,8
Maximum earth conductor resistance (d.c.) at 20ºC (1,38mmØ)	Ω/km	12,4
Max. capacitance unbalance (0,4 mmØ - unit construction)	pF/500m	200
Max. capacitance unbalance (0,4 mmØ - layer construction)	pF/500m	300
Max. capacitance unbalance (0,5 mmØ - unit construction)	pF/500m	500

COLOUR CODE

Pairs	Insulation Colour **					
	A wire			B wire		
1	WHITE		blue	BLUE		white
2	WHITE		orange	ORANGE		white
3	WHITE		green	GREEN		white
4	WHITE		brown	BROWN		white
5	WHITE		grey	GREY		white
6	RED		blue	BLUE		red
7	RED		orange	ORANGE		red
8	RED		green	GREEN		red
9	RED		brown	BROWN		red
10	RED		grey	GREY		red
11	BLACK		blue	BLUE		black
12	BLACK		orange	ORANGE		black
13	BLACK		green	GREEN		black
14	BLACK		brown	BROWN		black
15	BLACK		grey	GREY		black
16	YELLOW		blue	BLUE		yellow
17	YELLOW		orange	ORANGE		yellow
18	YELLOW		green	GREEN		yellow
19	YELLOW		brown	BROWN		yellow
20	YELLOW		grey	GREY		yellow

** Ring markings. Base colours in capital letters.

UNITS IDENTIFICATION

Binder colours for units

- First unit in a layer - Orange
- Intermediate units in a layer - Natural
- Last unit in a layer - Green

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

MAKE-UP FOR UNIT CABLES

Cable	Construction
8 PR	1x8PR
16 PR	1x16PR
32 PR	4x16PR
64 PR	1x16PR + 6x8PR
128 PR	4x8PR + 6x16PR
256 Pr	1x16PR + 5x16PR + 10xPR16
10 PR	1x10PR
10 PR + E	1x10PR + E
20 PR(a)	1x20PR
20 PR + E	1x20PR + E
25 PR	1x25PR
40PR + E	4x10PR + E
50PR + E	5x10PR + E
80PR + E	1x20PR + 6x10PR + E
100PR + E	1x20PR + 8x10PR + E
160PR + E	4x10PR + 6x20PR + E
320PR + E	1x20PR + 5x20PR + 10x20PR + E

(a) The 20PR0,5 cable contains an additional 0,5 mm diameter insulated conductor coloured Violet.

CABLE DIMENSIONS

Code	Cable	Sheath Radial Thickness min. (mm)	Cable Diameter max. (mm)
0,4 mm diameter conductor - Layer Construction			
6570020	2PR	0,4	3,9
6570030	3PR	0,5	5,3
6570040	4PR	0,5	5,8
6570060	6PR	0,6	6,8
6578100	10PR	0,6	8,3
6578120	12PR	0,7	8,9
6578200	20PR	0,7	10,4
6578250	25PR	0,8	11,1
0,4 mm diameter conductor - Unit Construction			
6570080	8PR	0,6	7,2
6578160	16PR	0,7	9,8
6578320	32PR	0,8	12,0
6578640	64PR	1,1	16,0
0,5 mm diameter conductor - Layer Construction			
6570031	3PR	0,65	5,0
6570041	4PR	0,65	5,8
6570061	6PR	0,6	6,8
6578101	10PR	0,6	8,3
6578121	12PR	0,7	9,1
6578151	15PR	0,7	9,8
6578201	20PR	0,8	10,7
6578251	25PR	0,8	11,4
0,5 mm diameter conductor - Unit Construction			
6570081	8PR	0,6	7,6
6578161	16PR	0,7	10,2
6578321	32PR	0,8	12,4
6578641	64PR	1,1	16,5
6578BT1	128PR	1,6	25,4
6578BZ1	256PR	2,0	35,2
6570101	10PR + E	0,6	8,6
6570201	20 PR + E	0,7	12,0
6570401	40PR + E	0,9	15,0
6570501	50PR + E	1,0	17,0
6570801	80PR + E	1,2	22,5
6570AA1	100PR + E	1,5	27,0
6570BQ1	160PR + E	1,7	30,3
6570BS1	320PR + E	2,2	39,5

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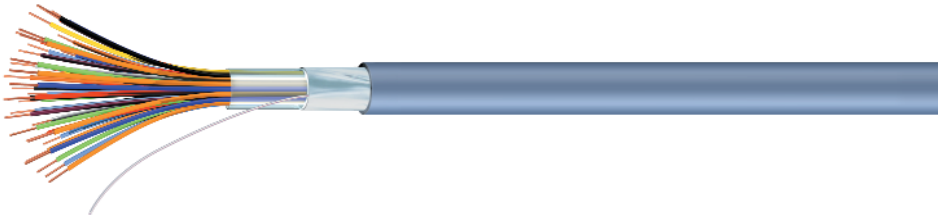
Screened multipair Cat 3 cables PVC or LSZH sheath



TECHNICAL DESCRIPTION

Multipair telecom cables with Aluminium foil screen (E02V or E02Z1), complying with IEC 60332-1 (flame retardant)

APPLICATION

Internal Telecom and signal transmission up to Cat 3

CONSTRUCTION

Conductor	Solid annealed Copper conductors (24 AWG)
Insulation	Solid Polyethylene (PE)
Screen	Aluminium/ PETP foil, with draining wire
Sheath	PVC or LSZH compound

ELECTRICAL AND TRANSMISSION CHARACTERISTICS

Maximum conductor resistance (d.c.) at 20ºC (0,4 mmØ)	Ω/km	93,8
Min. dielectric strength (d.c.) between conductors (V)		1000
Min. dielectric strength (d.c.) conductor / screen (V)		1500
Min. insulation resistance (MΩ/km)		10000
Max. mutual capacitance @ 1 kHz (nF/km)		66
Characteristic impedance (Ohm)		(min-max)
Value at	0,772 MHz	87-117
	1 - 16 MHz	85-115
Structural Return Loss (RL) dB		
Value at	1 - 10 MHz	min. 12
	10 - 16 MHz	min. 12 - 10 log (f/10)

ORDERING INFORMATION

Code	Pairs	Construction	Sheath	Diameter (mm)	Weight (kg/Km)	Colour sheath	Drum size	Length/reel (m)
669025BGRP	25	25x2x0,50	PVC	10,7	169	Grey	08	1000
669125BGRP	25	25x2x0,50	LSZH	10,7	166	Grey	08	1000
669050BGRP	50	50x2x0,50	PVC	14,5	301	Grey	10	1000
669150BGRP	50	50x2x0,50	LSZH	14,5	297	Grey	10	1000
669075BGRP	75	75x2x0,50	PVC	16,7	428	Grey	11	1000
669175BGRP	75	75x2x0,50	LSZH	16,7	423	Grey	11	1000
6690AABGRP	100	100x2x0,50	PVC	19,5	560	Grey	12	1000
6691AABGRP	100	100x2x0,50	LSZH	19,5	555	Grey	12	1000

Frequency MHz	Attenuation dB/100m	Power Sum Near-End Crosstalk dB/100m (min)
0,772	2,2	43
1	2,6	41
4	5,6	32
8	8,5	27
10	9,7	26
16	13,1	23

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TELECOM CABLES

General Cable

Unscreened multipair Cat 3 cables
PVC or LSZH sheath

TECHNICAL DESCRIPTION

Multipair telecom cables complying with IEC 60332-1 (flame retardant)

APPLICATION

Internal Telecom and signal transmission up to Cat 3

CONSTRUCTION

Conductor	Solid annealed Copper conductors (24 AWG)
Insulation	Solid Polyethylene (PE)
Sheath	PVC or LSZH compound

ELECTRICAL AND TRANSMISSION CHARACTERISTICS

Maximum conductor resistance (d.c.) at 20ºC (0,4 mmØ)	Ω/km	93,8
Min. dielectric strength (d.c.) between conductors (V)		1000
Min. insulation resistance (MΩ/km)		10000
Max. mutual capacitance @ 1 kHz (nF/km) 66		
Characteristic impedance (Ohm)		(min-max)
Value at	0,772 MHz	87-117
	1 - 16 MHz	85-115
Structural Return Loss (RL) dB		
Value at	1 - 10 MHz	min. 12
	10 - 16 MHz	min. 12 - 10 log (f/10)

ORDERING INFORMATION

Code	Pairs	Construction	Sheath	Diameter (mm)	Weight (kg/Km)	Colour sheath	Drum size	Length/reel (m)
669225CGRPA	25	25x2x0,50	PVC	10,4	162	Grey	08	1000
669325CGRPA	25	25x2x0,50	LSZH	10,4	160	Grey	08	1000
669250CGRPA	50	50x2x0,50	PVC	13,8	293	Grey	10	1000
669350CGRPA	50	50x2x0,50	LSZH	13,8	289	Grey	10	1000
669275CGRPA	75	75x2x0,50	PVC	16,4	419	Grey	11	1000
669375CGRPA	75	75x2x0,50	LSZH	16,4	410	Grey	11	1000
6692AACGRPA	100	100x2x0,50	PVC	18,8	551	Grey	12	1000
6693AACGRPA	100	100x2x0,50	LSZH	18,8	545	Grey	12	1000

Frequency MHz	Attenuation dB/100m	Power Sum Near-End Crosstalk dB/100m (min)
0,772	2,2	43
1	2,6	41
4	5,6	32
8	8,5	27
10	9,7	26
16	13,1	23

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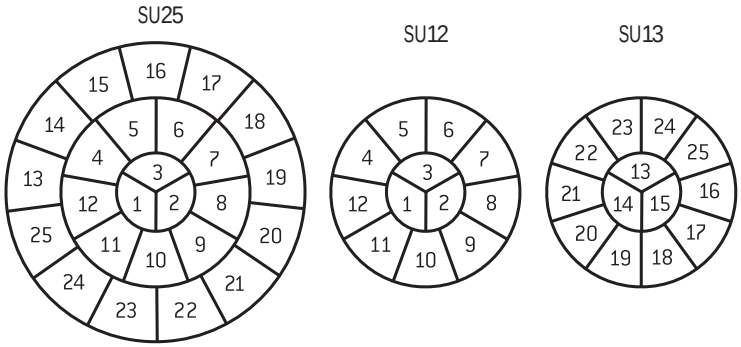
Colour code - Screened Multipair Cat.3 and Unscreened Multipair Cat. 3

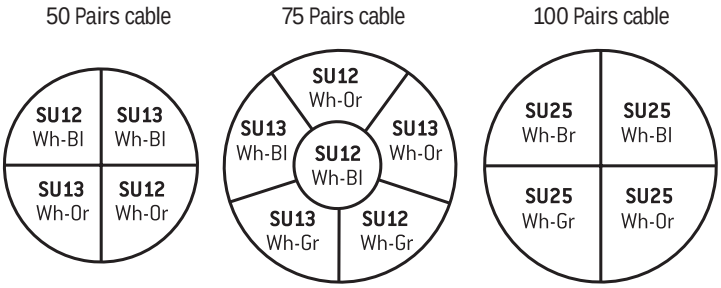
COLOUR CODE

Pairs	Insulation Colour	
	A wire	B wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY
11	BLACK	BLUE
12	BLACK	ORANGE
13	BLACK	GREEN
14	BLACK	BROWN
15	BLACK	GREY
16	YELLOW	BLUE
17	YELLOW	ORANGE
18	YELLOW	GREEN
19	YELLOW	BROWN
20	YELLOW	GREY
21	VIOLET	BLUE
22	VIOLET	ORANGE
23	VIOLET	GREEN
24	VIOLET	BROWN
25	VIOLET	GREY

SUBUNITS

25 Pairs cable





SU = Subunit

Subunit colour yarn: Wh-Bl (White-Blue), Wh-Or (White-Orange), Wh-Gr (White-Green), Wh-Br (White-Brown).

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General Cable

Limited Fire Hazard (LFH) cable (CW1600)

CONSTRUCTION

Conductor	Solid annealed Copper conductors 0,5 mm Ø
Insulation	Polyethylene Insulation
Earth conductor	Solid annealed Copper conductors 1,38 mm Ø *
Insulation Earth Conductor	Polyethylene Insulation
Core	20Pr Unit Type
Wrapping tape(s)	1 polyester
Ripcord	1 longitudinal ripcord
Screen	Al/PETP 12/12 µm tape
Sheath	LSF

* Suffix 'E' added to the cable type.

ELECTRICAL CHARACTERISTICS

Maximum conductor resistance (d.c.) at 20ºC (0,5 mm Ø)	Ω/km	97,8
Maximum earth conductor resistance (d.c.) at 20ºC (1,38 mm Ø)	Ω/km	12,4
Max. mutual capacitance	nF/km	80
Max. capacitance unbalance	pF/500m	500

COLOUR CODE

Pairs	Insulation Colour **				
	A wire			B wire	
1	WHITE		blue	BLUE	
2	WHITE		orange	ORANGE	
3	WHITE		green	GREEN	
4	WHITE		brown	BROWN	
5	WHITE		grey	GREY	
6	RED		blue	BLUE	
7	RED		orange	ORANGE	
8	RED		green	GREEN	
9	RED		brown	BROWN	
10	RED		grey	GREY	
11	BLACK		blue	BLUE	
12	BLACK		orange	ORANGE	
13	BLACK		green	GREEN	
14	BLACK		brown	BROWN	
15	BLACK		grey	GREY	
16	YELLOW		blue	BLUE	
17	YELLOW		orange	ORANGE	
18	YELLOW		green	GREEN	
19	YELLOW		brown	BROWN	
20	YELLOW		grey	GREY	

** Ring markings. Base colours in capital letters.

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COLOUR CODE

Pair Size	20 PR	40 PR	80 PR	100 PR	160PR	320PR
Centre	1x20Pr	4x10PR	1x20Pr	1x20Pr	4x10Pr	1x20Pr
1 st Layer			6x10Pr	8x10Pr	6x20Pr	5x10Pr
2 nd Layer						10x10Pr
Unit Nº	Colours of Unit Lappings	Colours of Unit Lappings	Colours of Unit Lappings	Colours of Unit Lappings	Colours of Unit Lappings	Colours of Unit Lappings
1	Orange	Orange	Orange	Orange	Orange	Orange
2		Green	Orange	Orange	Green	Orange
3			Natural	Natural	Orange	Natural
4			Green	Natural	Natural	Natural
5				Green	Natural	Natural
6					Natural	Green
7					Natural	Orange
8					Green	Natural
9 to 15						Natural
15						Green

CABLE DIMENSIONS

Code	Cable	Sheath Radial Thickness min. (mm)	Cable Diameter max. (mm)
6572031	3PR	0,6	4,8
6572041	4PR	0,6	6,0
6572061	6PR	0,6	6,8
6572121	12PR	0,7	9,1
6572251	25PR	0,8	11,4
6572101	10PR+ E	0,6	8,6
6572201	20PR + E	0,7	12,0
6572401	40PR + E	0,9	15,0
6572801	80PR + E	1,2	22,5
6572AA1	100PR + E	1,5	27,0
6572BQ1	160PR + E	1,7	30,3
6572BS1	320PR + E	2,2	39,5

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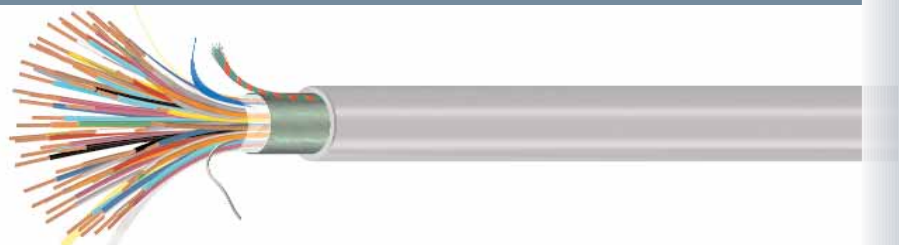
General Cable

SYT PLUS



CONSTRUCTION

Conductor	Solid annealed Copper conductors - 24AWG (0,51 mm Ø) and 20AWG (0,81 mm Ø)
Insulation	PE insulation, colour identification in accordance with NF C 93-529
Core	7P or 14P unit type, in accordance with NF C 93-529
Wrapping tape(s)	1 Polyester tape helically applied with overlap
Continuity wire	1 solid tinned Copper drain wire 0,5 mm Ø
Screen	1 Al/PETP foil
Ripcord	1 (coloured Green/Grey/Red)
Sheath	Unleaded PVC outer sheath

FIRE RESISTANCE / TEMPERATURE

Fire behaviour	IEC 60332-1 and NF C 32-070 C2
Operation temperature	–10 ºC / +70 ºC

ELECTRICAL / TRANSMISSION CHARACTERISTICS

Electrical characteristics	24 AWG	20 AWG
Maximum loop conductor resistance (d.c.) at 20ºC Ω/km	188	74
Maximum capacitance unbalance Pair-Pair pF/500m	300	
Maximum capacitance unbalance Pair-Ground at 1MHz pF/500m	1700	
Maximum dielectric strength (1 min) Vcc	1500	
Minimum insulation resistance (2min/200V) MΩ.km	1500	
Characteristic impedance at 1MHz Ω	100 ± 20	

Transmission characteristics		24 AWG	20 AWG
Typical linear attenuation at			
40 kHz	dB/km	6,5	3,5
150 kHz	dB/km	9	6,5
300 kHz	dB/km	16	13
1 MHz	dB/km	30	25
2 MHz	dB/km	42	35
Near end crosstalk (NEXT)			
Typical at 1 MHz	dB	56	
Minimum at 1 MHz	dB	45	
Minimum at 2 MHz	dB	41	

CABLE DIMENSIONS

Cable	Code		Approx. cable diameter (mm)		Approx. cable weight (kg/km)	
	24AWG	20AWG	24AWG	20AWG	24AWG	20AWG
1 Pair	690001C	6900011	4,0	5,3	22	37
2 Pairs	690002C	6900021	4,8	6,5	30	56
3 Pairs	690003C	6900031	5,3	7,3	38	71
4 Pairs	690004C	---	6,3	---	48	---
5 Pairs	690005C	6900051	6,5	8,5	55	100
7 Pairs	690007C	690071	6,9	9,6	70	140
10 Pairs	690010C	6900101	8,2	11,8	92	190
15 Pairs	690015C	6900151	9,5	13,9	125	260
21 Pairs	690021C	6900211	11,3	16,4	175	360
30 Pairs	690030C	6900301	12,9	19,0	230	490
42 Pairs	690042C	6900421	14,7	21,9	300	650
56 Pairs	690056C	6900561	16,7	24,8	390	850
112 Pairs	6900BNC	6900BN1	22,8	34,3	720	1600

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General Cable

TE1SE Dropwire

DESCRIPTION

Self-supported telecom cable with non-metallic strength member (aramide)

APPLICATION

External installations, supported on poles or directly on walls.

CONSTRUCTION

Conductor	Solid annealed Copper conductors
Insulation	Solid Polyethylene
Wrapping	PETP tape
Strength member	Aramid
Ripcord	Polyamide
Sheath	Polyethylene

SPECIFICATION

PT Com. ET-2346 (Type 2x2x0,5)
PT Com. ET-2347 (Type 1x2x0,8)

COLOUR CODE

Pairs	A wire	B wire
1	WHITE	BLUE
2	YELLOW	BLACK

ELECTRICAL CHARACTERISTICS

	0.5 mm Ø	0.8 mm Ø
Max. conductor resistance DC @ 20ºC (Ω/km)	95	37
Max. resistance unbalance (%)	2	2
Min. insulation resistance (MΩ.km)	10000	10000
Dielectric strength (V)	1000 V DC 1500 V AC	1000 V DC 1500 V DC
Max. mutual capacitance (nF/km)	55	55
Max. capacity unbalance, pair-pair (pF/km)	300	–
Max. capacity unbalance, pair-earth (pF/km)	1000	–

TRANSMISSION CHARACTERISTICS

Frequen. kHz	Attenuat. dB/km	Charact. Imp. (Ω)	Return Loss (dB)
0,8	1,5	600 ± 50	–
64	8,0	125 ± 25	–
256	11,0	–	–
512	15,5	–	–
772	18,0	100 ± 15	> 18
1000	21,0	100 ± 15	> 18
4000	43,0	100 ± 15	> 18
10000	66,0	100 ± 15	> 15
16000	82,0	100 ± 15	> 15

CABLE DIMENSIONS

Code	Cable	Weight, app. (kg/km)	External Diam. (mm)
6535021	2 x 2 x 0,5	26,2	5,0
65351A0	1 x 2 x 0,8	26,6	5,3

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General Cable

Jelly Filled Cellular Polyethylene Unit Twin Cable (CW-1128)

STANDARDS

CW1128: Cable Polyethylene Twin.
CW1179: Polyethylene Sheath for Metallic and Optical Telephone Cables.
CW1198: Wire Armouring of Telephone Cables.
CW1252: Cable Aerial Self Supporting Combined

INSULATION COLOUR CODE

Pairs	Colour	
	A wire	B wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY

BINDERS COLOUR CODE

Unit Nr.	Colour
1	BLUE
2	ORANGE
3	GREEN
4	BROWN
5	GREY
6	WHITE
7	RED
8	BLACK
9	YELLOW
10	VIOLET

CABLE CHARACTERISTICS

Electrical characteristics

Nominal Diameter	mm	0,4	0,5	0,6	0,63	0,9
Maximum conductor resistance (d.c.) at 20ºC	Ω/km	143	91	63	58	28
Maximum average mutual capacitance at 800Hz	nF/km	56	56	42	56	59
Maximum mutual capacitance for 99% of cases at 800Hz	nF/km	64	64	46	64	65
Maximum capacitance unbalance Pair-Pair at 800Hz	pF/500m	275	275	275	275	275
Minimum insulation resistance (1min/500V)	MΩ.km	1500	1500	1500	1500	1500

Note: For screened cables of 20 pairs or less the maximum average mutual capacitance shall not apply and the maximum for 99% of cases shall be increased by 3nF/km.

Other characteristics

Water Penetration Test (IEC 60708-1, clause 20.2)	Pass

CABLE DIMENSIONS

Pairs	Max. Unarmoured Cable diameter (mm)	Max. Screened Cable diameter (mm)	Max. Armoured Cable diameter (mm)
5PR0,4	7,5	9,0	12,7
10 PR0,4	8,5	10,0	13,7
20 PR0,4	10,0	11,5	15,2
50 PR0,4	14,0	15,5	19,9
100 PR0,4	18,5	20,0	25,3
5PR0,5	8,0	9,5	13,2
10 PR0,5	9,5	11,0	14,7
20 PR0,5	12,0	13,5	17,2
50 PR0,5	16,5	18,0	23,3
100 PR0,5	22,0	23,5	29,0
5PR0,6	11,0	12,5	16,2
10 PR0,6	13,0	14,5	18,9
20 PR0,6	16,0	17,5	22,8
50 PR0,6	24,0	25,5	31,0
100 PR0,6	32,0	33,5	40,2
5PR0,63	9,5	11,0	14,7
10 PR0,63	11,5	13,0	16,7
20 PR0,63	14,0	15,5	19,9
50 PR0,63	20,5	22,0	27,5
100 PR0,63	27,5	29,0	35,5
5PR0,9	11,5	13,0	16,7
10 PR0,9	14,0	15,5	19,9
20 PR0,9	18,0	19,5	24,8
50 PR0,9	26,5	28,0	34,5
100 PR0,9	36,0	37,4	44,4

CABLE SUSPENSON

Specified max. diameter of cable (mm)	Type of Cable Suspension	Web Height (mm)	Web Width (mm)
≤ 13,0	1 x 2,65	1,5 ± 1,0	2,0 ± 1,0
13,1 - 36,0	7 x 1,6	2,0 ± 1,0	3,5 ± 1,0

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CABLE DESCRIPTION

CABLE	CW1128	CW1128/1179	CW1128/1198	CW1128/1179/1198	CW1128/1252	CW1128/1179/1252
Conductor Solid annealed Copper conductors	●	●	●	●	●	●
Insulation Cellular polyethylene insulation	●	●	●	●	●	●
Core 10P unit type	●	●	●	●	●	●
Filling Petroleum jelly filling compound	●	●	●	●	●	●
Wrapping tape(s) 1 or more paper wrappings	●	●	●	●	●	●
Ripcord 1 longitudinal ripcord	●	●	●	●	●	●
Screen Aluminium / Polyethylene tape	○	●	○	●	○	●
Sheath Black polyethylene sheath	●	●	●	●	●	●
Armour Galvanized steel wires	○	○	●	●	○	○
Sheath Black polyethylene sheath	○	○	●	●	○	○
Cable Suspension	○	○	○	○	●	●

● - Included in the cable.
○ - Not included in the cable.

MAKE-UP

Pairs	Make-Up	10 PR	1x10PR	50 PR	5x10PR
5PR	1x5PR	20 PR	4x5PR	100 PR	10x10PR

CABLE CONSTRUCTION

CW1128		CW1128/1179		CW1128/1198		CW1128/1179/1198		CW1128/1252		CW1128/1179/1252	
6640050	5x2x0,4	6639050	5x2x0,4	6642050	5x2x0,4	6616050	5x2x0,4	6614050	5x2x0,4	6615050	5x2x0,4
6640100	10x2x0,4	6639100	10x2x0,4	6642100	10x2x0,4	6616100	10x2x0,4	6614100	10x2x0,4	6615100	10x2x0,4
6640200	20x2x0,4	6639200	20x2x0,4	6642200	20x2x0,4	6616200	20x2x0,4	6614200	20x2x0,4	6615200	20x2x0,4
6640500	50x2x0,4	6639500	50x2x0,4	6642500	50x2x0,4	6616500	50x2x0,4	6614500	50x2x0,4	6615500	50x2x0,4
6640AA0	100x2x0,4	6639AA0	100x2x0,4	6642AA0	100x2x0,4	6616AA0	100x2x0,4	6614AA0	100x2x0,4	6615AA0	100x2x0,4
6640051	5x2x0,5	6639051	5x2x0,5	6642051	5x2x0,5	6616051	5x2x0,5	6614051	5x2x0,5	6615051	5x2x0,5
6640101	10x2x0,5	6639101	10x2x0,5	6642101	10x2x0,5	6616101	10x2x0,5	6614101	10x2x0,5	6615101	10x2x0,5
6640201	20x2x0,5	6639201	20x2x0,5	6642201	20x2x0,5	6616201	20x2x0,5	6614201	20x2x0,5	6615201	20x2x0,5
6640501	50x2x0,5	6639501	50x2x0,5	6642501	50x2x0,5	6616501	50x2x0,5	6614501	50x2x0,5	6615501	50x2x0,5
6640AA1	100x2x0,5	6639AA1	100x2x0,5	6642AA1	100x2x0,5	6616AA1	100x2x0,5	6614AA1	100x2x0,5	6615AA1	100x2x0,5
6640052	5x2x0,6	6639052	5x2x0,6	6642052	5x2x0,6	6616052	5x2x0,6	6614052	5x2x0,6	6615052	5x2x0,6
6640102	10x2x0,6	6639102	10x2x0,6	6642102	10x2x0,6	6616102	10x2x0,6	6614102	10x2x0,6	6615102	10x2x0,6
6640202	20x2x0,6	6639202	20x2x0,6	6642202	20x2x0,6	6616202	20x2x0,6	6614202	20x2x0,6	6615202	20x2x0,6
6640502	50x2x0,6	6639502	50x2x0,6	6642502	50x2x0,6	6616502	50x2x0,6	6614502	50x2x0,6	6615502	50x2x0,6
6640AA2	100x2x0,6	6639AA2	100x2x0,6	6642AA2	100x2x0,6	6616AA2	100x2x0,6	6614AA2	100x2x0,6	6615AA2	100x2x0,6
664005C	5x2x0,63	663905C	5x2x0,63	664205C	5x2x0,63	661605C	5x2x0,63	661405C	5x2x0,63	661505C	5x2x0,63
664010C	10x2x0,63	663910C	10x2x0,63	664210C	10x2x0,63	661610C	10x2x0,63	661410C	10x2x0,63	661510C	10x2x0,63
664020C	20x2x0,63	663920C	20x2x0,63	664220C	20x2x0,63	661620C	20x2x0,63	661420C	20x2x0,63	661520C	20x2x0,63
664050C	50x2x0,63	663950C	50x2x0,63	664250C	50x2x0,63	661650C	50x2x0,63	661450C	50x2x0,63	661550C	50x2x0,63
6640AAC	100x2x0,63	6639AAC	100x2x0,63	6642AAC	100x2x0,63	6616AAC	100x2x0,63	6614AAC	100x2x0,63	6615AAC	100x2x0,63
6640055	5x2x0,9	6639055	5x2x0,9	6642055	5x2x0,9	6616055	5x2x0,9	6614055	5x2x0,9	6615055	5x2x0,9
6640105	10x2x0,9	6639105	10x2x0,9	6642105	10x2x0,9	6616105	10x2x0,9	6614105	10x2x0,9	6615105	10x2x0,9
6640205	20x2x0,9	6639205	20x2x0,9	6642205	20x2x0,9	6616205	20x2x0,9	6614205	20x2x0,9	6615205	20x2x0,9
6640505	50x2x0,9	6639505	50x2x0,9	6642505	50x2x0,9	6616505	50x2x0,9	6614505	50x2x0,9	6615505	50x2x0,9
6640AA5	100x2x0,9	6639AA5	100x2x0,9	6642AA5	100x2x0,9	6616AA5	100x2x0,9	6614AA5	100x2x0,9	6615AA5	100x2x0,9

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General Cable

Polyethylene Unit Twin cable (CW1171/1179)

STANDARD

CW1171: Cable Polyethylene Unit Twin (Terminating Type).
CW1179: Polyethylene Sheath for Metallic and Optical Telephone Cables .

CONSTRUCTION

Conductor	Solid annealed Copper conductors
Insulation	Solid polyethylene insulation
Core	25P unit type
Wrapping tape(s)	1 polyester tape + 1 paper tape
Ripcord	1 longitudinal ripcord
Screen	Aluminium / Polyethylene tape
Sheath	Black polyethylene sheath

ELECTRICAL AND OTHER CHARACTERISTICS

Electrical characteristics

Nominal conductor diameter	(mm)	0,4	0,5	0,63	0,9
Maximum conductor resistance (d.c.) at 20ºC	(Ω/km)	150	96	60	30
Maximum average mutual capacitance at 800Hz	nF/km)	53	53	56	59
Maximum mutual capacitance for 99% of cases at 800Hz	(nF/km)	60	60	60	64
Maximum capacitance unbalance pair-pair at 800Hz	(pF/500m)	275	275	275	275
Minimum insulation resistance (1min/500V)	(MΩ.km)	6500	6500	6500	6500

COLOUR CODE

Pairs	Insulation Colour	
	A wire	B wire
1	WHITE	BLUE
2	WHITE	ORANGE
3	WHITE	GREEN
4	WHITE	BROWN
5	WHITE	GREY
6	RED	BLUE
7	RED	ORANGE
8	RED	GREEN
9	RED	BROWN
10	RED	GREY
11	BLACK	BLUE
12	BLACK	ORANGE
13	BLACK	GREEN
14	BLACK	BROWN
15	BLACK	GREY
16	YELLOW	BLUE
17	YELLOW	ORANGE
18	YELLOW	GREEN
19	YELLOW	BROWN
20	YELLOW	GREY
21	VIOLET	BLUE
22	VIOLET	ORANGE
23	VIOLET	GREEN
24	VIOLET	BROWN
25	VIOLET	GREY

COLOURS OF BINDERS IN DOUBLE (50PR) & QUADRUPLE (100PR) UNITS

Unit	Position of sub-unit or unit			
	1	2	3	4
Double	Bl	Bl	Or	Or
Quadrupl	Bl	Or	Gr	Br

COLOURS OF BINDERS IN CENTRE AND LAYERS

Position units		
First	Intermediate	Last
RED	NATURAL	GREEN

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CABLE DIMENSIONS

Code	Cable type	Approx. cable Diameter (mm)	Approx. cable Weight (kg/km)
0,4mm diameter conductor			
6629500	50	13,0	207
6629AA0	100	17,0	368
6629AC0	200	22,0	688
6629AD0	300	26,0	991
6629AF0	500	32,5	1600
6629AG0	600	35,0	1900
6629AI0	800	40,0	2505
6629AK0	1000	44,0	3085
6629AM0	1200	48,0	3675
6629AQ0	1600	55,0	4855
6629AU0	2000	61,0	6000
0,5mm diameter conductor			
6629501	50	16,0	305
6629AA1	100	21,0	555
6629AC1	200	28,0	1055
6629AD1	300	33,0	1550
6629AF1	500	42,0	2505
6629AG1	600	45,0	2965
6629AI1	800	52,0	3925
6629AK1	1000	57,0	4850
6629AM1	1200	62,0	5780
0,63mm diameter conductor			
662950C	50	19,0	445
6629AAC	100	25,5	835
6629ACC	200	34,0	1580
6629ADC	300	41,0	2325
6629AFC	500	52,0	3770
6629AGC	600	56,5	4485
6629AIC	800	64,5	5930
0,9mm diameter conductor			
6629505	50	24,0	825
6629AA5	100	32,5	1585

MAKE-UP

Pairs	Make-Up
50	1x50 (2x12 + 2x13)
100	4x25
200	4x50
300	1x50 + 5x50
500	3x50 + 7x50
600	1x100 + 5x100
800	4x50 + 6x100
1000	3x100 + 7x100
1200	4x100 + 8x100
1600	1x100 + 5x100 + 10x100
2000	4x50 + 6x100 + 12x100

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TELECOM CABLES

Internal/External Telephone Cable (CW1308B)

CONSTRUCTION

Conductor	Solid annealed Copper conductors 0,5 mm Ø
Insulation	PVC
Earth conductor	Solid annealed Copper conductor 1,38 mm Ø
Insulation earth conductor	PVC
Core	Unit Type
Wrapping tape(s)	Polyester
Ripcord	1 longitudinal ripcord
Screen	Al/PE 150/40 µm tape
Sheath	LSF

ELECTRICAL AND OTHER CHARACTERISTICS

Electrical characteristics

Maximum conductor resistance (d.c.) at 20ºC (0,5 mmØ)	Ω/km	97,8
Maximum earth conductor resistance (d.c.) at 20ºC (1,38 mmØ)	Ω/km	12,4
Max. capacitance unbalance	pF/500m	500

Improved Fire Characteristics of Outer Sheath

Flame retardant	IEC 60332-1
Acid gas emission	IEC 60754-1
Corrosivity	IEC 60754-2

COLOUR CODE

Pairs	Insulation Colour *					
	A wire			B wire		
1	WHITE		blue	BLUE		white
2	WHITE		orange	ORANGE		white
3	WHITE		green	GREEN		white
4	WHITE		brown	BROWN		white
5	WHITE		grey	GREY		white
6	RED		blue	BLUE		red
7	RED		orange	ORANGE		red
8	RED		green	GREEN		red
9	RED		brown	BROWN		red
10	RED		grey	GREY		red
11	BLACK		blue	BLUE		black
12	BLACK		orange	ORANGE		black
13	BLACK		green	GREEN		black
14	BLACK		brown	BROWN		black
15	BLACK		grey	GREY		black
16	YELLOW		blue	BLUE		yellow
17	YELLOW		orange	ORANGE		yellow
18	YELLOW		green	GREEN		yellow
19	YELLOW		brown	BROWN		yellow
20	YELLOW		grey	GREY		yellow
21	VIOLET		blue	BLUE		violet
22	VIOLET		orange	ORANGE		violet
23	VIOLET		green	GREEN		violet
24	VIOLET		brown	BROWN		violet
25	VIOLET		grey	GREY		violet

* Ring markings. Base colours in capital letters.

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COLOUR CODE

Pair size	10 PR	20 PR	50 PR	75 PR ***	80 PR	100PR	200PR ***
Centre	1x10Pr	1x20Pr	5x10Pr	3x25Pr	1	1x20Pr	3x20Pr
1st layer					6x10Pr	8x10Pr	7x10Pr
Unit Nº	Colours of unit lappings	Colours of unit lappings	Colours of unit lappings	Colours of unit lappings	Colours of unit lappings	Colours of unit lappings	Colours of unit lappings
1	Orange	Orange	Orange	Orange	Orange	Orange	Orange
2			Natural	Natural	Orange	Orange	Natural
3			Green**	Green	Natural	Natural	Green
4					Green	Natural	Green
5						Green	Natural
6							Natural
7							Green**

** The Green colour lapping shall be applied to the 10PR last unit .
*** Not included in CW1308B.

CABLE DIMENSIONS

Code	Cable type	Approx. cable Diameter (mm)	Approx. cable Weight (kg/km)
6562101	10PR + E	7,0	98
6562201	20PR + E	9,0	155
6562501	50PR + E	13,5	325
6562751	75PR + E**	16,0	470
6562AA1	100PR + E	19,0	610
6562AC1	200PR + E***	25,6	1155

*** Not included in CW1308B.

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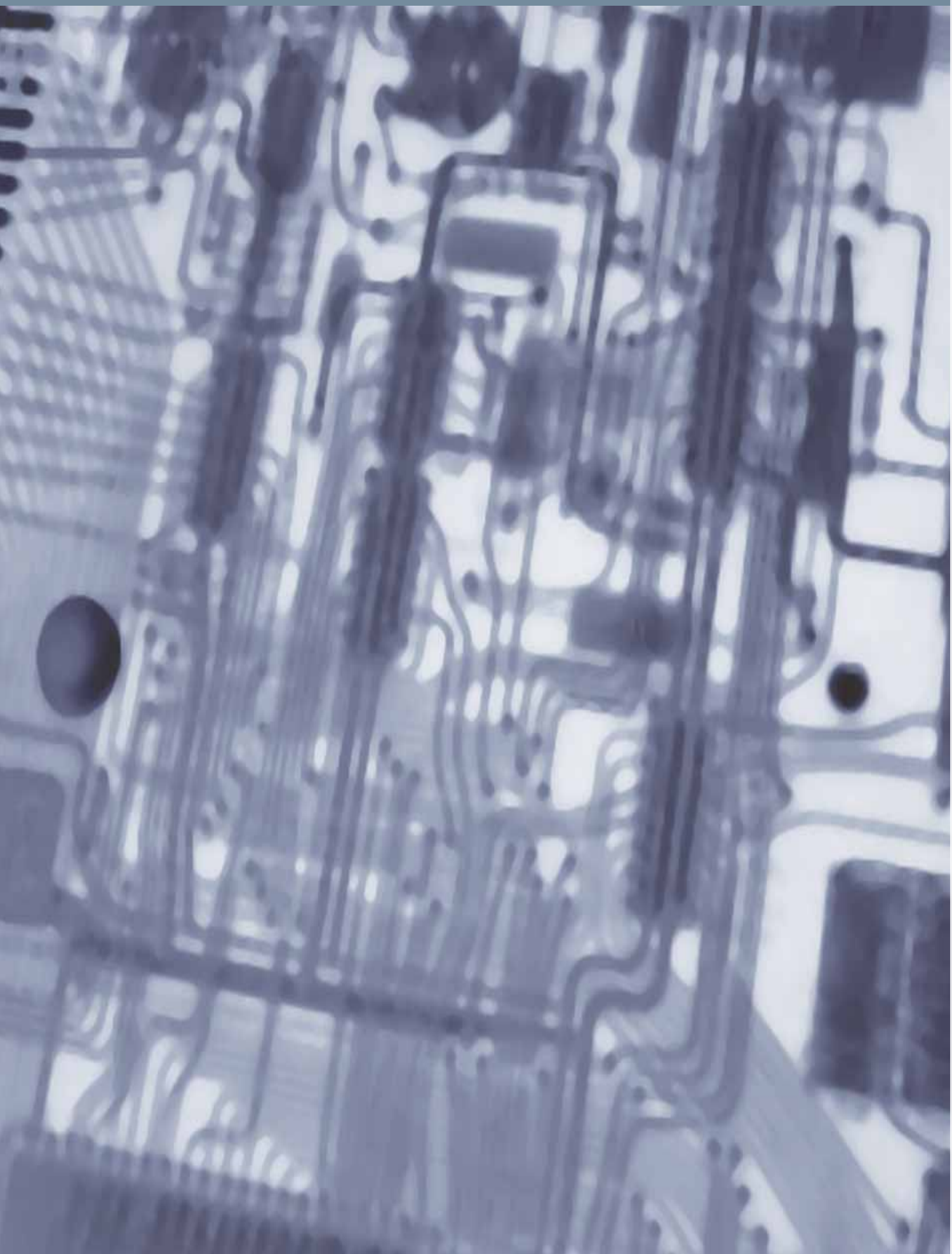
General Cable



CABICTEL

The Cabictel group of cables was created following the need to supply the market with an entire range of cables in line with the new Common Telecommunications Infrastructure Regulations (I.C.T.)
The current regulations are pursuant to the Spanish Royal Decree 401/2003 and Order CTE/1296/2003 approved in 2003.

The technology currently available has notably increased the range of television and radio broadcasting programmes and other telecommunications services, with the use of means being required so that flat or outlet owners subject to the horizontal property laws and the tenants of all or part of a building can access these offers, avoiding the spread of individual systems and outdoor wiring on new buildings that would have a negative impact on their appearance.

General Cable has a wide range of indoor and outdoor Telecommunications cables that include:

- Indoor connection cables
- Outdoor connection cables
- Cat. 3 – FTP type – shielded Multi-pair cables
- Cat. 3 – UTP type – unshielded Muti-pair cables
- EAP type outdoor cables and versions (EAP-R, EAP-SP)
- Cables for ISDN applications (UTP & FTP Type)
- Coaxial cables

CABICTEL

General Cable

Category 5e UTP solid cable for outdoor installation

ANSI/TIA/EIA 568B.2 (Cat.5e), ISO/IEC 11801 : 2002, EN 50173 : 2002

CONSTRUCTION

Conductor	24 AWG (0,51 mm) solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-length
Inner sheath	Grey PVC
Over sheath	Black PE

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100Base-VG-AnyLan
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

COLOUR CODE

Pairs		Colour combination	
1	white	blue	blue
2	white	orange	orange
3	white	green	green
4	white	brown	brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		4,59
Nominal velocity of propagation NVP (% speed of light)		70
Characteristic impedance (Ohm)		(min-max)
Value at	772 kHz	87-117
	1.0 - 200 MHz	85-115
Propagation Delay (max) (ns @ 10 MHz)		518
Diameter (mm)		6,6

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	ACR db/100m (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)
0,772	1,8	67	65,2	64	66	63
1	2,04	65,33	63,29	62,33	63,78	60,78
4	4,05	56,28	52,23	53,28	51,71	48,71
8	5,77	51,77	46	48,77	45,69	42,69
10	6,47	50,31	43,84	47,31	43,75	40,75
16	8,25	47,25	39	44,25	39,67	36,67
25	10,42	44,35	33,93	41,35	35,79	32,79
31,2	11,71	42,9	31,19	39,9	33,87	30,87
62,5	16,99	38,38	21,39	35,38	27,83	24,83
100	21,97	35,31	13,34	32,31	23,75	20,75
125	24,89	33,85	8,96	30,85	21,8	18,8

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
52934A1NGP	4/24	Black PE	Spools 1.000 m
52934A1NGPQ	4/24	Black PE	Spools 500 m

1000m

MAX. OPERATING TEMPERATURE 70˚C

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CABICTEL

General Cable

Category 5e FTP solid cable for outdoor installation

ANSI/TIA/EIA 568B.2 (Cat.5e), ISO/IEC 11801 : 2002, EN 50173 : 2002

CONSTRUCTION

Conductor	24 AWG (0,51 mm), solid bare annealed Copper
Insulation	Polyolefin
Pairing	Varying short pair lay-lengths
Screen	Aluminium / polyester foil
Drain wire	Solid tinned Copper 24 AWG (0,51 mm)
Inner sheath	Grey PVC
Over sheath	Black PE

APPLICATIONS

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100Base-VG-AnyLan
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

COLOUR CODE

Pairs		Colour combination
1	white / blue	blue
2	white / orange	orange
3	white / green	green
4	white / brown	brown

ELECTRICAL AND CONSTRUCTIVE VALUES

DC resistance (max) Ohm/100m(328 ft) @ 20ºC		8,90
Mutual capacitance (nominal) nF/100m(328 ft) @ 1kHz		4,59
Nominal velocity of propagation NVP (% speed of light)		70
Characteristic impedance (Ohm)		(min-max)
Value at	772 kHz	87-117
	1.0 - 200 MHz	85-115
Propagation Delay (max) (ns @ 10 MHz)		518
External diameter (mm)		6,87
Weight (kg/km)		48,3
Minimum bending radius (mm)		34

Freq. MHz	Attenuat. Max. dB/100m	NEXT dB (min)	ACR db/100m (min)	PS-NEXT dB (min)	ELFEXT dB (min)	PS-ELFEXT dB (min)
0,772	1,8	67	65,2	64	66	63
1	2,04	65,33	63,29	62,33	63,78	60,78
4	4,05	56,28	52,23	53,28	51,71	48,71
8	5,77	51,77	46	48,77	45,69	42,69
10	6,47	50,31	43,84	47,31	43,75	40,75
16	8,25	47,25	39	44,25	39,67	36,67
25	10,42	44,35	33,93	41,35	35,79	32,79
31,2	11,71	42,9	31,19	39,9	33,87	30,87
62,5	16,99	38,38	21,39	35,38	27,83	24,83
100	21,97	35,31	13,34	32,31	23,75	20,75
125	24,89	33,85	8,96	30,85	21,8	18,8

ORDERING INFORMATION

Code	Pairs/AWG	Sheath	Packing
53554A0NGP	4/24	Black PE	Spools 1.000 m
53554A0NGPQ	4/24	Black PE	Spools 500 m

TEMPERATURA MÁXIMA DE SERVICIO 70°C

UNFIRE®
No propagador de la llama
UNE-EN 50265-2-1 / IEC 60332-1

1000m

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TV coaxial drop cable

TECHNICAL DESIGNATION

Digital TV 75 Ohm coaxial cable

APPLICATIONS

- Installation of TV aerials (analogic or digital SAT)
- May be used for individual or collective systems

DIMENSIONS

Central conductor diameter (mm)	1,0	Cu
Dielectric diameter (mm)	4,6	PE
Screen - covering (%)	100	Al/PETP
Dimensions (mm)	5,1	
Braid - coverage (%)	21	Cu
External diameter (mm)	6,6	PVC

ELECTRICAL AND CONSTRUCTIVE VALUES

Impedance (Ohm)	75 ± 2
Capacitance (pF/m)	55 ± 3
Velocity of propagation	82%
DC resistance of conductors at 20 ºC (int/ext)	22/33

Frequency (20ºC) Mhz	50	200	450	862	1000	1350	1750	2050	2150
Attenuation (dB/100m)	4,7	8,9	13,6	19,3	21	24,8	28,6	31,3	32,1
Return Loss	5-460 Mhz >26 dB			460-1000 Mhz >25 dB		1000-2150 Mhz >24 dB			

ORDERING INFORMATION

Code	Packing
C001320BLP	100 m coils (Pallets with 3500 or 5600 m)

CabICTel Al coaxial cable

TECHNICAL DESIGNATION

Cabictel Al Digital 75 Ohm coaxial cable

APPLICATIONS

- Radio, TV, CATV (analogic or digital)
- May be used for main drop lines

DIMENSIONS

Central conductor diameter (mm)	1,13	Cu
Dielectric diameter (mm)	4,8	PE
Screen - covering (%)	100	Al3
Dimensions (mm)	5,4	
Braid - coverage (%)	46	CuSn
External diameter (mm)	6,7	PVC

ELECTRICAL AND CONSTRUCTIVE VALUES

Impedance (Ohm)	75 ± 2
Capacitance (pF/m)	52 ± 2
Velocity of propagation	85%
DC resistance of conductors at 20 ºC (int/ext)	18/20

Frequency (20ºC) Mhz	50	200	450	862	1000	1350	1750	2050	2150
Attenuation (dB/100m)	3,8	7,8	11,9	16,8	18,3	21,5	24,8	27,2	27,9
Return Loss	5-460 Mhz >26 dB			460-1000 Mhz >25 dB		1000-2150 Mhz >24 dB			

ORDERING INFORMATION

On request

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

CabICTel coaxial cable

TECHNICAL DESIGNATION

Digital 75 Ohm coaxial cable

APPLICATIONS

- Radio, TV, CATV (analogic or digital)
- Particularly suited for special installations with very low losses

DIMENSIONS

Central conductor diameter (mm)	1,13	Cu
Dielectric diameter (mm)	4,8	PE
Screen - covering (%)	100	Cu/PETP
Dimensions (mm)	5,4	
Braid - coverage (%)	38	Cu
External diameter (mm)	6,8	PVC

ELECTRICAL AND CONSTRUCTIVE VALUES

Impedance (Ohm)	75 ± 2
Capacitance (pF/m)	52 ± 2
Velocity of propagation	85%
DC resistance of conductors at 20 ºC (int/ext)	18/23

Frequency (20ºC) Mhz	50	200	450	862	1000	1350	1750	2050	2150
Attenuation (dB/100m)	3,7	7,6	11,7	16,6	18	21,2	24,5	26,8	27,5
Return Loss	5-460 Mhz >25 dB			460-1000 Mhz >23 dB		1000-2150 Mhz >20 dB			

ORDERING INFORMATION

Code	Packing
C001321BLP	100 m coils (pallets with 3500 and 5600 m)
C001322BLP	100 m spools (pallets with 3000 and 6000 m)

CabICTel CA TV coaxial cable

TECHNICAL DESIGNATION

Digital 75 Ohm coaxial drop cable

APPLICATIONS

- Coaxial cable for distribution drops in digital or satellite systems.
- Specially designed for cable TV reception, satellite or terrestrial (analogic or digital)

DIMENSIONS

Central conductor diameter (mm)	1,63	Cu
Dielectric diameter (mm)	7,1	PE
Screen - covering (%)	100	Cu/PETP
Dimensions (mm)	7,8	
Braid - coverage (%)	80	Cu
External diameter (mm)	9,8	PE

ELECTRICAL AND CONSTRUCTIVE VALUES

Impedance (Ohm)	75 ± 2
Capacitance (pF/m)	52 ± 2
Velocity of propagation	85%
DC resistance of conductors at 20 ºC (int/ext)	18/20

Frequency (20ºC) Mhz	50	200	450	862	1000	1350	1750	2050	2150
Attenuation (dB/100m)	2,7	5,5	8,4	11,9	12,8	15,2	17,2	18,4	19,2
Return Loss	5-460 Mhz >26 dB			460-1000 Mhz >25 dB		1000-2150 Mhz >24 dB			

ORDERING INFORMATION

On request

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RG 58C/U

TECHNICAL DESIGNATION

RG-58 C/U MIL C-17 coaxial cable

APPLICATIONS

- Coaxial cable for radiofrequencies with a large application in communications, particularly suited for data transmission. Complies with MIL Standard Part C-17.

DIMENSIONS

Central conductor diam. (mm)	19x0,8	CuSn
Dielectric diameter (mm)	2,95	PE
Screen - covering (ø mm)	3,45	
Braid - coverage (%)	94	CuSn
External diameter (mm)	5,0	PVC

ELECTRICAL AND CONSTRUCTIVE VALUES

Impedance (Ohm)	50 ± 2
Capacitance (pF/m)	100 ± 2
Velocity of propagation	66%
DC resistance of conductors at 20 ºC (int/ext)	37,5/14

Frequency (20ºC) Mhz	100	200	400	600	800	1000
Attenuation (dB/100m)	14,9	22,2	33,1	41,7	52,0	59,1
Return Loss	5-300 Mhz >30 dB		300-600 Mhz >25 dB		600-1000 Mhz >23 dB	

ORDERING INFORMATION

Code	Packing
C001262NGP	Spools 1.000m.

RG 59B/U

TECHNICAL DESIGNATION

RG-59 MIL C-17 coaxial cable

APPLICATIONS

- Coaxial cable for radiofrequencies with a large application in communications, particularly suited for data transmission. Complies with MIL Standard Part C-17.

DIMENSIONS

Central conductor diameter (mm)	0,58	FeCu
Dielectric diameter (mm)	3,7	PE
Screen - covering (mm)	4,3	
Braid - coverage (%)	94	Cu
External diameter (mm)	6,15	PVC

ELECTRICAL AND CONSTRUCTIVE VALUES

Impedance (Ohm)	75 ± 2
Capacitance (pF/m)	67 ± 2
Velocity of propagation	66%
DC resistance of conductors at 20 ºC (int/ext)	157/9

Frequency (20ºC) Mhz	100	200	400	600	800	1000
Attenuation (dB/100m)	11,0	16,3	23,6	29,8	31,1	38,6
Return Loss	5-300 Mhz >30 dB		300-600 Mhz >25 dB		600-1000 Mhz >23 dB	

ORDERING INFORMATION

Code	Packing
C001264NGP	Spools 1.000m.

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

RG 11 A/U

TECHNICAL DESIGNATION

RG-11 A/U MIL C-17 coaxial cable

APPLICATIONS

- Coaxial cable for radiofrequencies with a large application in communications, particularly suited for data transmission. Complies with MIL Standard Part C-17.

DIMENSIONS

Central conductor diam. (mm)	7x0,40	CuSn
Dielectric diameter (mm)	7,25	PE
Screen - covering (ø mm)	8	
Braid - coverage (%)	96	Cu
External diameter (mm)	10,3	PVC

ELECTRICAL AND CONSTRUCTIVE VALUES

Impedance (Ohm)	75 ± 2
Capacitance (pF/m)	67 ± 2
Velocity of propagation	66%
DC resistance of conductors at 20 ºC (int/ext)	21/4,3

Frequency (20ºC) Mhz	100	200	400	600	800	1000
Attenuation (dB/100m)	6,5	10,0	14,2	18,7	23,0	26,6
Return Loss	5-300 Mhz >30 dB		300-600 Mhz >25 dB		600-1000 Mhz >23 dB	

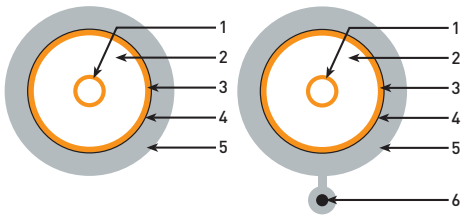
ORDERING INFORMATION

Code	Packing
C001260NGP	Spools 1.000m.

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Multi-band (2400MHz) Coaxial Radiating Cables 1/2", 7/8", 1"1/4 & 1"5/8 for radio applications

Standard reference: IEC 61196-4



CONSTRUCTION

1 - Inner conductor (copper tube or copper-coated aluminium tube)

2 - Cellular polyethylene insulation.

3 - Outer slotted copper conductor.

4 - Tape

5 - Cross-linked LSZH outer sheath

6 - Steel messenger for figure 8 self-supported cables.

APPLICATIONS

The fast development of mobile communications and data exchange requires improving the extent of radio coverage, in particular in confined areas such as subways, railways, road tunnels, car parks, malls, buildings ,... Silec Cable offers multi-band coaxial radiating cables for long length radio coverage, mainly in big infra-structures (tunnels,...) and complying to the most severe standards concerning fire hazards.

Cable	Weight Kg/Km C / F8 [4]	Diam.Ext. mm C / F8 [4]
1/2"	270/360	17,2/21,6x17,2
7/8"	660/760	29,1/38,8x29,1
1"1/4	980/1100	39,2/49,3x39,2
1"5/8	1350/1500	49,1/60x49,1

ELECTRICAL CHARACTERISTICS

Capacity (nF/km)	72
Nominal Velocity of Propagation (%)	87
Insulation strength (MΩ.km)	10000
Dielectric strength -1 min (V d.c.)	1500

TRANSMISSION CHARACTERISTICS

Cable type	1/2"		7/8"		1"1/4		1" 5/8	
Impedance W	50		50		50		50	
Attenuation[1] (dB/km)								
100 MHz	22		12,5		9		8	
150 MHz	26		15		11		9	
450 MHz	46		27,5		21		18	
900 MHz	70		42,5		34		26	
1710 MHz	140		75		65		49	
1880 MHz	160		85		75		52	
2400 MHz	340		145		115		74	
Coupling loss[1] at 2m (dB)	C50[2]	C95[2]	C50[2]	C95[2]	C50[2]	C95[2]	C50[2]	C95[2]
100 / 150 MHz	65	76	67	79	67	79	75	87
450 MHz	66	76	69	77	69	77	80	92
900 MHz	65	75	67	75	67	75	67	75
1710 / 1880MHz	63	73	64	74	64	74	64	74
2400 MHz	58	70	62	72	62	72	62	72
Return Loss (dB)	from 30 MHz to 2500 MHz: < -14 dB [3]							

Storage temperature	-15°C to +70°C
Service temperature	0°C to +60°C
Laying temperature	-5°C to +40°C (between 5ºC and +5ºC, keep at 20ºC for 24 hours before drawing)
Fire behaviour	No fire propagation according to the following standards: NF C 32 070 Cat. C1 and IEC 60 332-3 Cat. C. Very low smoke density, toxicity and corrosivity according to the followings standards : NF C 20 902, CEI 1034, NF C 20 454 and IEC 60 754-2.

[1] Characteristics depending on environment and on cable position. Please contact us for more information.
[2] C50, C95 : 50% and 95% coupling loss probability.
[3] Excepted for rejection frequencies : 280 MHz and multiples (740 MHz and multiples for 1"5/8 cable).
[4] C = cylindrical cable – F8 = figure 8 self-supported cable

Note: Coaxial radiating cables are not suitable for low impedance applications as : heating, lighting, etc... Their packing is CE marked according to the European Low Voltage Directive (73/23/CEE) 19 February 1973 modified by the directive 93/68/CEE (22 July 1993).

ORDERING INFORMATION

Code	Cable	Sheath	Packaging
C000012NGP	1/2"	LSZH 332.3C Black	Spools 1.000m.
C000078NGP	7/8"	LSZH 332.3C Black	Spools 1.000m.
C000114NGP	1" 1/4	LSZH 332.3C Black	Spools 1.000m.
C000158NGP	1" 5/8	LSZH 332.3C Black	Spools 1.000m.

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

All purpose fastening device for all cables types.
Feeders or coaxial radiating cables 1/2", 7/8", 1"1/4 and 1"5/8

Standard reference: DIN VDE 0472 part 815 - UL 94 class HB

APPLICATIONS - FEATURES

Radiating cables installed in tunnels need to be held using reliable and strong fastening devices complying to the most severe requirements.
In addition to its radiating cables, Silec Cable offers an entire range of fittings to help network designers and installators for the definition of complete and optimized proposals.

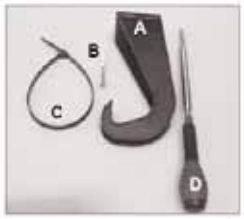
RECOMMENDATIONS FOR INSTALLATION

Silec Cable recommends to hold the radiating cables with the smallest arrow as possible. For all cables we propose to use halogen-free & flam retardant fastening devices. The recommended distance between each fastening device is between 1.0 and 1.5 m (generally 1.3 m) and the distance from the tunnel wall has to be about 80 up to 100 mm.
For an increased security during fire (for example to avoid cable falling down) it is possible to insert stainless steel clamps or to replace 10% of the pastic fastening devices with stainless steel clamps.

Sistema d fijación del cable

SPECIFICATION

HALOGEN-FREE & FLAM RETARDANT FASTENING DEVICES
- GLASS-ARMOURED Durethan®
- UV resistant
- Operating temperature: up to +70 °C
- Installation temperature: down to –10 °C



INSTALLATION

This all purpose fastening device offers 2 functions : cable holding and brace. So, only one device is necessary for all cable types, even if different cables are installed in the same network.
A: All purpose fastening device
B: Screw and pin
C: Tightening belt
D: Adapted screw-driver

1. Make a hole 6 mm diameter and > 60 mm depth
2. Using the screw-driver insert the pin and the screw inside the hole through the fastening device.
3. Tighten the belt with pliers

DIMENSIONS

Total height:	175 mm
Total width:	85 mm
Base:	60 x 60 mm

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

Radianting Quad Cable
for radio coverage up to 2400 MHz

Standard reference: IEC 61196-4

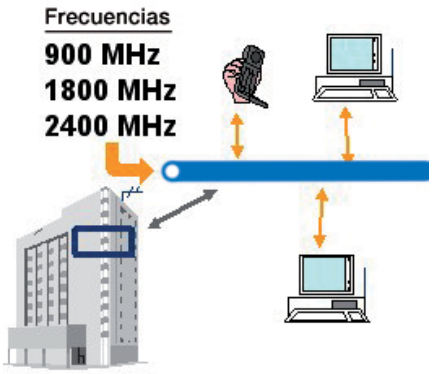
APPLICATIONS

The fast development of mobile communications and data exchange requires improving the extent of radio coverage, in particular in confined areas such as car parks, malls, buildings,...

The radiating quad is suited for radio coverage of indoor areas with complex configurations (buildings, sinuous corridors, modular desks and offices, warehouses, car parks,.)

The Silec Cable "Radiating Quad" is a new concept of radiating cable for optimized radio coverage (GSM, UMTS, WiFi, DECT, ...) of buildings and closed areas.

Small and versatile Silec Cable RADIATING QUAD is particularly suited for the coverage of dark areas where solutions with traditional antennas fail. The low emission level together with a very good radiated field stability, allows a high level of confidentiality.



ELECTRICAL CHARACTERISTICS

Nominal Velocity of Propagation (NVP) (%)	70
Insulation strength (MΩ.km)	10000
Dielectric strength 1 min (V c.c.)	1500

SPECIFICATION

Impedance of the radiating circuit	Ω			50				
Frequency	MHz	150	450	900	1800	2200	2400	
Attenuation 1 dB/100 m	15	25	35	71	76	77		
Coupling loss [1] at 2m	C50 [2]	dB	54	64	68	56	59	60
	C95 [2]	dB	63	75	72	68	72	74
Return Loss	dB	from 30 MHz to 2500 MHz: < -14 dB [3]						

SYSTEM PERFORMANCE (Coupling loss 95% @ 2m)

Frequency (MHz)	Cable length(m) for a system loss of 100 dB	Cable length (m) for a system loss of 120 dB	APPLICATION
150	238	368	Security services
450	98	178	Railway services
900	80	137	GSM
1800	44	73	GSM/DECT
2200	37	64	UMTS
2400	34	59	Wireless LAN / WiFi

Storage temperature	-15°C to +70°C
Service temperature	0°C to +60°C
Laying temperature	-5°C to +40°C (between 5ºC and +5ºC, keep at 20ºC for 24 hours before drawing)
Fire behaviour	Compliant to IEC 60332-1 and NFC32070 category C2.

(1) Characteristics depending on environment and on cable position. Please contact us for more information.
(2) C50, C95 : 50% and 95% coupling loss probability.
(3) Excepted for rejection frequencies : 600 / 1300 / 1700 MHz

Note: The radiating quad cables are not suitable for low impedance applications as : heating, lighting, etc... Their packing is CE marked according to the European Low Voltage Directive (73/23/CEE) 19 February 1973 modified by the directive 93/68/CEE (22 July 1993).

ORDERING INFORMATION

Code	Cable	Sheath	Packaging
COOQUADCRP	1x4	Ivory 332-1	Spools 500m.

General Cable reserves the right to alter or modify the specifications and materials according to future technical development that may result in modifications to the technical data provided. Please contact your Customer Service Representative for latest information.

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