

Universal Cable UC..

Symmetrical 100 Ω Data Transmission Cables acc. to ISO/IEC 11801 2nd edition, EN 50173-1

Application

Symmetrical 100 Ω data transmission cables from Universal Cable line UC.. acc. to ISO/IEC 11801, EN 50173 and EIA/TIA 568A are used for high speed data transmission, mainly in secondary and horizontal cabling in standardised, manufacturer-independent local networks (LAN), ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T and CATV. All shielded cables of line UC400 and up are ready for 10 Gigabit Ethernet (IEEE802.3: 10GBase-T)

UC300

Line UC300 covers all world-wide standardised types of cables acc. to Category 5 / Class D up to 100 MHz. Line UC 400 is the next higher class, acc. to demands of Category 6 / Class E by ISO/IEC 11801 up to 250 MHz.

UC400

UC500

UC500 is the solution up to 500 MHz according to IEEE 802, 3rd.

UC900

Category 7 / Class F is the highest class of ISO/IEC 11801 and DIN 44312-5 with characteristics up to 600 MHz. Product line UC900 contains all necessary patch and installation cables, necessary for the link.

UC1000

Up to 1000 MHz the line UC1000 will be the best solution.

UC1200

All these requirements are fulfilled from High End product lines UC1200 and UC1500 too, but due to its transmission headroom these cable fulfil highest requirements up to 1200 MHz, as required in the „broadband premises cabling“ proposal from ISO/IEC JTC1 SC25 WG3.

UC1500

These lines are scaled in a certain way, so that a cable of the desired class allows cable sharing (mixed operation) on the next class below.

The cables' names result from the transmission frequency range, observed in production. This frequency range can exceed the limits, defined by the above mentioned standards, depending on the transmission log being used. Newest developments in signal processing technology require cable performance data up to negative ACR values.

Construction

Due to high requirements of transmission speed, attenuation, crosstalk and regularity of characteristic impedance all UC.. cables are manufactured exclusively with stranded conductors or calibrated solid copper conductors. For conductors diameter AWG 23 (0.56 mm) and AWG 22 (0,64 mm) foam-skin core insulation is used in order to receive smaller core dimensions. All data pairs are stranded with backtwist due to the high data rates (constant tension, greatest possible symmetry).

Multimedia cables from product line UC1500 combine the traditional pair shielding (PIMF) with the patented *High Performance Foil Wrapping*. The result is a NEXT suppression on a nearly non-detectable level.

Depending on the construction, single or double overall screens are used, which fulfil the screening requirements of EN 55022 class B and EN 50082-1. Furthermore, a compact and solid cable construction guarantees regularity of characteristic impedance and therefore low reflections in a wide data network.

The outer sheath consists of either flame retardant PVC or flame retardant and non corrosive Copolymer.

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Identification

Cores

Pair 1:	a- core white,	b- core blue,
Pair 2:	a- core white, b- core orange,	
Pair 3:	a- core white, b- core green,	
Pair 4:	a- core white, b- core brown,	

Cores of product line UC300 and UTP cable cores are additionally signed by stripes in the colour of the corresponding b-core.

Colour of sheath

UC300	grey,	RAL 7035
UC400	blue,	RAL 5012
UC500	blue,	RAL 5024
UC900	orange,	RAL 2003
UC1000	yellow,	RAL 1028
UC1200	yellow,	RAL 1028
UC1500	yellow,	RAL 1028

Sheath marking

Cable manufacturer, DRAKA MC Type designation, core size and no. of pairs, category, cables with an approval: "EC verified", cable type according to IEC 61156-5 /...6, "LSHF(LSOH)" for halogen free and flame retardant types fire rating, length marking and production batch no.

Cable nomenclature

UC900 SS 23 Cat.7 4P		CATEGORY 7 EC-VERIFIED S/FTP IEC 61156-5 LSHF (FRNC)	
		CATEGORY x	Cable performance according to IEC 61156-5 / ...6
		EC VERIFIED	Approved by Delta Electronics, Denmark
		6Foils S/FTP	Double individually foil shielded pairs acc. to IEC 61156-5 with braid
		S/FTP	Individually foil shielded pairs acc. to IEC 61156-5 with braid
		U/FTP	Individually foil shielded pairs acc. to IEC 61156-5
		SF/UTP	Overall foil shielded pairs acc. to IEC 61156-5 with braid
		F/UTP	Overall foil shielded pairs acc. to IEC 61156-5
		U/UTP	Unshielded pairs acc. to IEC 61156-5
		LSHF-FR (LSFROH)	Fire rating IEC 60332-3-24
		LSHF (LSOH)	Fire rating IEC 60332-1
	4P		4 pair
	22		AWG <u>22</u> (= Ø 0.64 mm)
	23		AWG <u>23</u> (= Ø 0.56 mm)
	24		AWG <u>24</u> (= Ø 0.51 mm)
	26		AWG <u>26</u> (= Ø 0.48 mm, flexible)
	27		AWG <u>27</u> (= Ø 0.42 mm, flexible)
	SS		<u>S</u> uper <u>S</u> creen (= overall screen + pair screen S/STP)
	HS		<u>H</u> igh <u>S</u> creen (= overall screen out of foil + braid S/FTP)
	S		<u>S</u> creen (= overall screen out of foil FTP)
	-		- (= no screen UTP)
UC300			<u>U</u> niversal <u>C</u> able <u>300</u> MHz (Category 5 acc. ISO/IEC 11801, 2 nd ed.)
UC400			<u>U</u> niversal <u>C</u> able <u>400</u> MHz (Category 6 acc. ISO/IEC 11801, 2 nd ed.)
UC500			<u>U</u> niversal <u>C</u> able <u>500</u> MHz (Category 6A acc. IEEE 802, 3 rd)
UC900			<u>U</u> niversal <u>C</u> able <u>900</u> MHz (Category 7 acc. ISO/IEC 11801, 2 nd ed.)
UC1000			<u>U</u> niversal <u>C</u> able <u>1000</u> MHz (Category 7A acc. IEEE 802, 3 rd)
UC1200			<u>U</u> niversal <u>C</u> able <u>1200</u> MHz (Category 7+ acc. ISO/IEC 11801, 2 nd ed. and Multimedia-proposal of ISO/IEC SC25 WG3)
UC1500			<u>U</u> niversal <u>C</u> able <u>1500</u> MHz (Category 7+ acc. ISO/IEC 11801, 2 nd ed. and MULTIMEDIA-proposal of ISO/IEC SC25 WG3)