

Draka Comteg | Cable Solutions - EMEA



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Studio cables

www.draka.com

www.drakact.com





## **Studiostars**

Draka Comteq: Active in the data and telecommunication market worldwide. We are your partner for high-quality data transmission and control cables for audio, video, camera, light and sound. For our customers, we already meet the digital demands of the future.



#### Draka Comteq Germany:

Since many decades we have been producing and developing innovative and highquality studio cables. Our products find application in radio- and TV-stations as well as film and radio studios worldwide. Whether events like Formula 1, winter sports or World Championships - with our cables your audience can take part in live. Therefore, we particularly turn our attention to the technically and practically orientated requirements our customers might have in the field of cables.



### Factor of success

The demands on the studio technique are nearly unlimited. Sports events, politics, culture and news - camera teams have to deliver optimal pictures worldwide, and with our high-performance products we are your reliable partner. Whether studio production or outside broadcasting. analogue or SDI, SDTI or HDTV, live or virtual we have got the right cable for you.

Our products are developed and produced for the latest technology. We guarantee high efficiency of the passive transmission. To support your success, our products offer economic efficiency and excellent capacity reserves.

## Product-Diversity

- High-precision analogue and digital 75-1-video cables connecting camera and CCU (Camera Control Unit), switcher and mixer, VTR and monitor.
- Analogue and digital multi-pair cables for the audio connection of camera connecting studios and broadcasting vans.
- Microphone cables in robust construction for the application on stage, in the speaker's cabin or during outside broadcasting.
- Speaker cables
   easy to wind up and multipurpose:
   they can be used for PA systems,
   security monitoring, edit suites,
   hi-fi systems and post production.
- Light & sound cables for light control (according to DMX512 standard) and high-flexible cables for musical instruments.
- Triax camera cables for the electric connection between camera and CCU; also available as Triflex cable for mobile application.



upon request.

application.



Triax-, video- and audio cables made by Draka Comteq - extreme space ratio and still optimal transmission characteristics.

For the professional picture- and soundrecording. -processing and -reproduction. a wide selection of digital and analogue studio cables are at your disposal. Digital Worlds
Capacity
Fire Protection
Video cables
Audio cables
Triax
Multicore
Light&Sound

 Multicore camera cables assembled for leading camera systems

 Studio connecting cables for space-saving and ergonomic

 Optical fibre cables for long distance transmission.

#### Service oriented

With our products we create the conditions for a reliable and safe transmission of signals. Our studio cables fulfil significant specifications like ARD- and BBC-Specification, AES/EBU, SMPTE, IEC, EN and VDE. Thus, we can guarantee optimal transmission characteristics and best electromagnetic compatibility. Our studio cables are with various outer sheath versions: PVC, PVC-rubber, FRNC, PUR and so on. Our enormous experience is the basis for the high and certified quality standards our products are known for.

Our offer is completed by qualified advisory service prior to the purchase decision, information as to the installation and a flexible logistics concept.



## **Capacity reserves**

Today, studio productions and outside broadcastings have to be realised in much shorter time. There is no time for technical problems. Our studio and transmission cables have a high noise-immunity, an excellent EMC, an optimal screening factor and enormous reserve capacity - transmission results are outstanding even when using long application lengths.



#### Transmission quality

Digital demands imply a good transmission performance. The quality of the signals is often limited by typical interference causes. Among others, these are the near end cross talk (coupling of pairs next to each other) and the line-attenuation.

In order to achieve an excellent transmission quality, we develop and produce studio cables with a high screening factor, low line-attenuation and low transfer impedance.



For our audio cables, this is obtained by perfectly adjusted pair twisting lengths and a 100% pair screening. We apply an aluminium-laminated foil and a tight, tinned copper braid for fixed installations. For mobile applications we recommend our highly flexible cables with screening of spiraled wires.

Multicore camera cables: coaxial elements, power supply, audio- and pilot cores.

#### **Screening Factor**

Professional transmissions can only be achieved by a high noise-immunity which has been standard with our studio cables for years. The high-quality screening of our products ensures an exceptionally high noise-immunity in an electromagnetic environment without emitting interferences on other systems.

Fact is: the higher the screening factor, the better the noise-immunity of the cable.

A screening of aluminium-double-laminated foil plus braid results (at 300 MHz) in a better screening efficiency by 20 dB in comparison to a screening of a double braid and by 30 dB against a screening of a single braid. With this quality of production we fulfil the specifications of public broadcasting companies and international standards.

For economical reasons, our products with aluminium-double-laminated foil and copper braid are applied in high-frequency ranges, thus achieving low transfer impedances.



Our studio cables are available with halogene-free FRNCsheath upon request.

Fire protection is an important aspect in the studio area. PVC-cables were often used in the past. They are hard to ignite, but they do not prevent a spread of fire. Where strong security regulations have to be adhered to we can provide studio cables with FRNC (Flame-Retardant-Non-Corrosive) sheath.

**Fire protection** 



#### Testing

The secret of good fire protection characteristics lies in the material applied in our cables: On the one hand the fire load is considerably reduced by applying cellular PE, on the other hand the application of heat transmitting aluminium-laminated foil is an additional fire barrier.

In order to examine the specific fire characteristics, our studio cables are subject to standardized test methods where either a single cable (test method B = IEC 60332-1) or a cable bundle (Test method C = IEC 60332-3) is tested. While the single cable is exposed to only one flame, the second test method examines the strength of the fire propagation by exposing a cable bundle to a line of flames for a longer period of time. The outcome: Our studio cables fully comply with the strong DIN regulations.

# Method B

At a glance

side the cables.

for 60 seconds. It is not allowed that the cable ignite.

#### of video cables with various screenings

Screening factor

**Digital Worlds** Capacity **Fire protection** Video cables Audio cables Triax Multicore Light&Sound

 No onwards self-burning of the cables, i.e. transmission of the local fire along-

No emission of corrosive gases. Verv low smoke production. No Dioxin in the fire remains.

Compared with PVC cables, high-quality. halogene-free FRNC sheath have remarkably improved properties in case of fire, meeting strongest security regulations.





A 60 cm long piece of cable is exposed to a flame



A cable bundle is exposed to a line of flames for 20 minutes in a 4 meter high cabinet. Approximately one meter above the flames the cable bundle must extinguish itself with only a minimal development of smoke.



## Brilliance

Nowadays high-quality pictures are standard. With a narrow characteristic impedance tolerance, our video cables provide perfect conditions for an optimal combination between camera and CCU, switcher and mixer as well as between VTR and monitor.



#### Choice of material

Due to the application of cellular PE insu- Our video cables fulfil the regulation of lation material in combination with double European and International standards like laminated aluminium foil and tinned copper IEC 60 801-4 and EN 50083-2. braid with high optical coverage, our video cables reach maximum electrical charac- **References** teristics.

struction and the exact insulation are es- our efforts in the product quality. Our sential for the quality of our video cables. video cable 0.6/2.8 AF obtains the best We pay attention to these requirements, attenuation and interference resistance. and therefore we can realize lowest reflections, a high structural return loss and a considerably low fire load.

#### Packing density

Extreme space ratios arise no problems for our video cables. Using cellular PE, our video cables obtain a better packing density at same performance. Therefore our video cables easily solve the space problems on cable carriers and in cable ducts.

Our video cables reach attenuation values reduced by 30% compared to plain-PE cables. Thereby you obtain a higher transmission capacity with the same outer diameter.

#### Standards

Proven Quality: The result of a comparative research by the independent institute Beside the used materials, the cable con- of Radio Technique in Nuremberg attested

mission systems up to 1.5 GHz our video cables grant a screening value of > 90dB and a very low transfer impedance curve.



Space is short in cable carriers and cable ducts. Our video cables are especially suitable thanks to the use of cellular PE.

Cable type

0.41 / 1.9 AF

#### 

Electrical properties		
Attenuation* at (dB/100 m)	5 MHz	4.4
	100 MHz	17.9
	500 MHz	39.9
	1000 MHz	55.4
	2250 MHz	100.7
	3500 MHz	129.0
Characteristic impedance	Ω	75 ± 0.75
Mutual capacitance	pF/m	56
Sreening factor	dB	> 100

Maxir	num application length at digit	al TV-transmission*										
Data	rate Mbit/s Application ler	ngth										
143	NTSC SMPTE 170 M	m	290	385	485	485	485	645	705	285	380	
177	Composite PAL	m	255	340	430	430	430	570	630	245	325	
270	SDI	m	230	305	365	365	365	480	530	200	265	
360	Widescreen	m	200	265	315	315	315	415	460	170	225	
1500	HDTV SMTPE 292 M	m	60	80	100	100	100	130	145	55	75	
2200	HDTV	m	49	66	82	82	82	107	120	45	62	

\* 90 % of the calculated max. lengths

Mechanical properties													
Diameter	mm	3.1	4.5	5.9	7.0	7.2	7.0	9.2	10.3	6.0	6.3	7.4	9.2
Weight	kg/km	14.0	27.0	49.0	69.0	80.0	52.0	109.0	150.0	50.0	70.0	86.0	100.0
Tensile force	Ν	50	60	100	140	115	115	200	270	70	200	200	150

Product code												
PVC	CT 2967000	CT 2738600	CT 2710800	CT 2758300		CT 2721500	CT 2758400	CT 2757800	CT 2740200	CT 2741001	CT 2741601	CT 2742000
FRNC-B									CT 7640200			CT 7642000
FRNC-C	CT 7667000	CT 2850202	CT 2850301	CT 2850401			CT 2850601	CT 2760901				
DMC Flex PUR					CT 2878800							

Other cable types on request

Digital Worlds Capacity **Fire Protection** Video cables

Audio cables Triax

Multicore Light&Sound

0.6 / 2.8 AF	0.8 / 3.7 AF	1.0 / 4.8 AF	1.2 L / 4.8 Dz	1.2 L / 4.95 AF	1.4 / 6.6 AF	1.6 / 7.3 AF	0.6 / 3.7	0.6 / 3.7 Dz	0.8 / 4.9 Dz	
2.5	1.9	1.6	2.0	1.7	1.0	0.9	2.4	2.4	1.8	1.4
10.5	7.9	6.2	8.0	6.3	4.8	4.5	10.9	10.9	8.0	6.5
24.5	17.6	14.8	17.3	13.9	12.0	11.0	25.7	25.7	19.2	15.5
35.3	25.5	20.7	25.8	20.7	17.9	16.2		36.3	27.1	39.2
54.0	39.5	31.7	41.6	31.7	27.5	25.0		56.5	47.0	
70.7	51.7	41.5	54.5	41.5	36.0	32.7				
75 ± 0.75	75 ± 0.75	75 ± 0.75	75 ± 0.75	75 ± 1.5	75 ± 0.75	75 ± 0.75	75 ± 0.75	75 ± 0.75	75 ± 1.5	75 ± 0.75
56	56	56	56	56	56	56	67	67	67	67
> 100	> 100	> 100	> 90	> 90	> 100	> 100	> 65	> 75	> 75	> 65



# The world of sounds

In order to enable a realization of optimal transmission, we have developed a large range of digital and analogue audio cables. Our products offer an excellent adaptation to your sound transmission system and a perfect signal transmission. Our analogue cables are designed in accordance with the ARD specifications, our digital audio cables additionally comply with the AES/EBU standard.



#### Characteristic impedance

High data rates require special cable con- for every demand structions. Therefore, our audio cables lation with narrow tolerances. Thus, our digital audio cables achieve a specified characteristic impedance of 110 t and data rates of 3 Mbit/s (single channel) and 6 Mbit/s (two channel).

#### Transmission quality

mands of studios and broadcasting vans designed to provide a perfect transmission quality. Characteristical for our products is low fire load and a high aging and abrasion resistance.

#### Interference transmission resistance

Perfectly adjusted twisting of the pairs and an excellent individual screening guarantee interference transmission resistance, immunity to outer interferences and lowest cross talk even at high-frequencies.

# The right cable

Mobile application (e.g. outdoor live trans- enjoyment of sound grant a low Œr (relative permittivity) and mission of a concert) calls for high-flexibi- to the audience low loss factor thanks to a foam-skin insu- lity, Particularly suitable for this purpose are our products with the flexible spiraled copper wire screen.

Fixed installations require high-performances and best electromagnetic compatibility. This is guaranteed by a pair- and overall screening consisting of aluminium-lami-We produce audio cables for the high de- nated foil and tight tinned copper braid.

digital and analogue broadcasting and TV-technique offer an



					Digital Worlds Capacity Fire Protection Video cables Audio cables Triax Multicore Light&Sound							
Cable type		Modulationcab nxP	le AC 10 SS 26/7 nxP	AC 10 SP 24/7 nxP	AC 10 SS 24/7 nxP	AC 10 SS 23/1 nxP	AC 10 S 26/1	AC 10 SP 24/7	AC 10 SS 24/7 1P	AC SS 24/7 nxP	AC SP 26/30	AC
Cable lay up Single Elemer	nt											
Conductor		Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Solid Cu-wires,	Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires	Stranded Cu-wires	s Stranded
		tinned	bare	bare	bare	bare	tinned	bare	bare	bare	bare	-
		0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.12 mm <sup>2</sup>	1
Insulation		Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	HDPE	PE	
Pair screen		Spiraled Cu-wires	PE I-AI-FOII	Spiraled Cu-wires	PET-AI-FOII	PE I-AI-FOII				PE I-AI-TOIL		
Dair shoath		DRT	+ stranded Cu-wires			+ solid Cu-wire				+ stranded Cu-wires		
		FDI	TRINC	FVC	FVC	TRIC				F VC		
Total construction												
Overall screen		Cu-braid	PET-Al-foil		PET-Al-foil	PET-Al-foil	Al-PET-foil	Spiraled	PET-Al-foil	PET-Al-foil	Spiraled Cu-wires	s F
		tinned	+ Cu-braid	-	⊦ stranded Cu-wires	+ Cu-braid	+ solid Cu-wire	Cu-wires +	stranded Cu-wires	+ stranded Cu-wires	bare	+ stranded
									and Cu-braid			
Sheath		FRNC, PUR,	FRNC	DMC Flex PVC	DMC Flex PVC	FRNC	PVC, FRNC	DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	:
		DMC Flex PUR										
Electrical properties												
Attenuation at (MHz)	Nominal value											
0.	015 (dB/100 m)	0.55	0.55	0.30	0.30	0.33	4.00	0.30	0.45			
	1	3.00	3.00	1.50	2.50	2.50	6.80	1.50	2.40			
	4	5.30	5.30	3.80	4.20	4.20	10.00	3.80	4.60			
	10	8.10	8.10	6.00	6.30	6.30	13.90	6.00	6.70			
Characteristic impedance	at 6 MHz	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω			
DC loop resistance at 20	C ± 5°C and 500V	≤ 288 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 175 Ω/km	≤ 165 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 174 Ω/km	≤ 175 Ω/km	≤ 164 Ω/km	≤
Mutual capacitance	at 800 Hz	nom. 45nF/km	nom. 45nF/km	nom. 46nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 46nF/km	nom. 90nF/km	nom. /5nF/km	nom.
Diamata												
1 D						4.00	2.00	E O O	C 00		3.65	5
2D			700	10.00	0.20	4.60	3.00	5.00	6.00	0.20	2.05	·
4P		9.00	8.40	11.60	10.20	0.30				0.30		
8P		10.90	11.90	14.90	14.80	13.00				12.00		
10P		12.50	13.70		1100	15.10						
12P		13.50	14.10	18.70	17.00	15.60				15.50		
Product code												
1 P				07 007 100	07.0047000	CT 7649010	CT 7650200 <sup>2</sup>	on request	CT 2757601		CT 2963800	/ CT
2P			CT 7652410	CT 2956200	CT 2967300	CT 7649710				CT 2961500		
42		on request	CT 7651610	CT 2956300	CT 296/400	07.76.40740				CT 2959500		
0P 10D		on request	CT 7652111	CT 2956400	CT 2967500	CT 7648710				CT 2959600		
12P		CT 26606001	CT 7651011	CT 2956600	CT 2967600	CT 7649410				CT 2959700		
				0472						012557100		h
sneat = DMC Flex PUR 2's	sneat = FRNC	ALS/LBU-standard, AF	specification, DIN VDE- שי	. 0472 part 804, test me	тпоd B and C, IEC 60332-	I, IEU 60332-3 CF				All cable	types are available with	л up to 48 pair

				Digital Worlds Capacity Fire Protection Video cables Audio cables Triax Multicore Light&Sound							
Cable type	Modulatio nxl	oncable AC 10 SS 26 P nxP	6/7 AC 10 SP 24/ nxP	7 AC 10 SS 24/7 nxP	AC 10 SS 23/1 nxP	AC 10 S 26/1	AC 10 SP 24/7	AC 10 SS 24/7 1P	AC SS 24/7 nxP	AC SP 26/30	AC
											*
Cable lay up Single Element											
Conductor	Solid Cu-v	vires, Stranded Cu-wires	s, Stranded Cu-wires,	Stranded Cu-wires,	Solid Cu-wires,	Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires	Stranded Cu-wires	Stranded
	ti	nned bar	e bare	bare	bare	tinned	bare	bare	bare	bare	
Inculation	0.14	mm <sup>2</sup> 0.14 mm	1 <sup>2</sup> 0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.25 mm²	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.12 mm <sup>2</sup>	(
Insulation	Foam ski	n-PE Foam skin-Pi	E Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam SKIN-PE	HDPE	PE	
Pair Screen	Spiraled Cu-V	Vires PET-AI-FO	II Spiraled Cu-wires	PET-AI-FOII	PE I-AI-FOII				PET-AI-TOIL		
Pair shoath				+ stranded Cu-wires	+ solid Cu-wire				+ stranded Cu-wires		
				FVC	TRIC				FVC		
Total construction											
	Cu-	braid PET-Al-fo	il	PET-Al-foil	PET-Al-foil	Al-PET-foil	Spiraled	PFT-Al-foil	PET-Al-foil	Spiraled Cu-wires	P
	ti	nned + Cu-brai	d	+ stranded Cu-wires	+ Cu-braid	+ solid Cu-wire	Cu-wires	+ stranded Cu-wires	+ stranded Cu-wires	hare	+ strander
	C.I.		u	· stranded ou miles	. Gu biulu	· Solid Gd Wild	ou mico	and Cu-braid	· stranded od wires	Durc	· strandee
Sheath	FRNC.	PUR. FRN	C DMC Flex PVC	DMC Flex PVC	FRNC	PVC. FRNC	DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	
	DMC Flex	PUR									
Electrical properties											
Attenuation at (MHz) Nom	inal value										
0.015 (d	B/100 m)	0.55 0.5	5 0.30	0.30	0.33	4.00	0.30	0.45			
1		3.00 3.00	0 1.50	2.50	2.50	6.80	1.50	2.40			
4		5.30 5.30	0 3.80	4.20	4.20	10.00	3.80	4.60			
10		8.10 8.10	0 6.00	6.30	6.30	13.90	6.00	6.70			
Characteristic impedance	at 6 MHz 1	10 Ω 110 Ω	Ω 110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω			
DC loop resistance at 20°C ± 5°C a	nd 500V ≤ 288 (	Ω/km ≤ 288 Ω/kr	m ≤ 175 Ω/km	≤ 175 Ω/km	≤ 165 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 174 Ω/km	≤ 175 Ω/km	≤ 164 Ω/km	≤ `
Mutual capacitance a	t 800 Hz nom. 45n	F/km nom. 45nF/kr	n nom. 46nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 46nF/km	nom. 90nF/km	nom. 75nF/km	nom.
Diameter											
1P					4.60	3.00	5.00	6.00		2.65	
		7.00	10.90	9.20	8.30				8.30		
42		9.00 8.4	u 11.60	10.20					9.20		
0P	1	11.90	14.90	14.80	13.00				12.00		
120	I	2.50 13.7	0 19.70	17.00	15.10				15 50		
121		3.30 [4.1	18.70	17.00	15.60				15.50		
Product code											
					CT 7649010	CT 7650200 <sup>2</sup>	on request	CT 2757601		CT 2963800	СТ
2P		CT 765241	0 CT 2956200	CT 2967300	CT 7649710	011050200	on request	51 2151001	CT 2961500	37 2703000	
4P	on rea	uest CT 765161	0 CT 2956300	CT 2967400	01101010				CT 2959500		
8P	00.700	uest CT 765211	1 CT 2956400	CT 2967500	CT 7648710				CT 2959600		
10P	on red	juest CT 765181	11		CT 7649410				0.2,0,000		
12P	CT 2660	600 <sup>1</sup> CT 765191	11 CT 2956600	CT 2967600	CT 7649510				CT 2959700		
short = DMC Elex DUD		ard APD-specification DININ	/DE 0472 part 904 toot	athed B and C JEC (0222	21 150 60222-2 05				All	types are available with	up to 49 pc
Sheat – DMC Flex POR – Sheat = FRN	ALS/LBU-STAND	aru, ARD-specification, DIN V	DE 0472 part 604, test m	ethou b allu C, IEC 60332	-1, IEC 00332-3 CF				All Cable	types are available with	i up to 46 pálí

					Digital Worlds Capacity Fire Protection Video cables Audio cables Triax Multicore Light&Sound							
Cable type		Modulationcable nxP	AC 10 SS 26/7 nxP	AC 10 SP 24/7 nxP	AC 10 SS 24/7 nxP	AC 10 SS 23/1 nxP	AC 10 S 26/1	AC 10 SP 24/7	AC 10 SS 24/7 1P	AC SS 24/7 nxP	AC SP 26/30	DA C
Cable lay up Single Element												
Conductor		Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Solid Cu-wires,	Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires	Stranded Cu-wires	s Stranded
		tinned	bare	bare	bare	bare	tinned	bare	bare	bare	bare	e
		0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.12 mm <sup>2</sup>	) <sup>2</sup>
Insulation		Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	HDPE	PE	E
Pair screen		Spiraled Cu-wires	PET-AI-Foil	Spiraled Cu-wires	PET-AI-Foil	PET-AI-Foil				PET-Al-foil		
		+	- stranded Cu-wires	+ stranded Cu-wires +	- stranded Cu-wires	+ solid Cu-wire				+ stranded Cu-wires		
Pair sheath		PBI	FRNC	PVC	PVC	FRNC				PVC		
Total construction												
		Cubroid						Creivalad			Creineled Cu. wines	•
Overall screen		Cu-braid	PE I-AI-TOII		PE I-AI-TOII	PE I-AI-TOII	AI-PE I-TOII	Spiraied		PET-AI-TOIL	Spiraled Cu-wires	S P
		tinned		т	- stranueu cu-wires	- Cu-bialu	+ Solid Cu-wire	Cu-wires -	and Cu-braid		Ddie	e – Stranuet
Sheath			FRNC	DMC Flex PVC	DMC Flex PVC	FRNC	PVC FRNC	DMC Flex PVC		DMC Flex PVC	DMC Flex PVC	ſ
oneath		DMC Flex PUR		Differrextive	Dirichitekti to		1 10,11110	Dino Flox Fro	Dirio Hicki Vo	Diric Hox I Vo	Differrent	
Electrical properties												
Attenuation at (MHz)	Nominal value											
0.015	(dB/100 m)	0.55	0.55	0.30	0.30	0.33	4.00	0.30	0.45			
1		3.00	3.00	1.50	2.50	2.50	6.80	1.50	2.40			
4		5.30	5.30	3.80	4.20	4.20	10.00	3.80	4.60			
10		8.10	8.10	6.00	6.30	6.30	13.90	6.00	6.70			
Characteristic impedance	at 6 MHz	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω			
DC loop resistance at 20°C ± 5	5°C and 500V	≤ 288 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 175 Ω/km	≤ 165 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 174 Ω/km	≤ 175 Ω/km	≤164 Ω/km	n ≤
Mutual capacitance	at 800 Hz	nom. 45nF/km	nom. 45nF/km	nom. 46nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 46nF/km	nom. 90nF/km	nom. 75nF/km	n nom.
Diameter												
1P						4.60	3.00	5.00	6.00		2.65	5
2P 4D		0.00	7.00	10.90	9.20	8.30				8.30		
4P		9.00	8.40	11.60	10.20	12.00				9.20		
8P		12.50	12.70	14.90	14.80	15.00				12.00		
12P		13.50	14.10	18.70	17.00	15.10				15.50		
161		13.50	14.10	10.70	11.00	13.00				13.50		
Product code												
1 P						CT 7649010	CT 7650200 <sup>2</sup>	on request	CT 2757601		CT 2963800	0 ст :
2P			CT 7652410	CT 2956200	CT 2967300	CT 7649710				CT 2961500		
4P		on request	CT 7651610	CT 2956300	CT 2967400					CT 2959500		
8P		on request	CT 7652111	CT 2956400	CT 2967500	CT 7648710				CT 2959600		
10P		on request	CT 7651811			CT 7649410						
12P		CT 2660600 <sup>1</sup>	CT 7651911	CT 2956600	CT 2967600	CT 7649510				CT 2959700		

					Digital Worlds Capacity Fire Protection Video cables Audio cables Triax Multicore Light&Sound							
Cable type		Modulationcable nxP	e AC 10 SS 26/7 nxP	AC 10 SP 24/7 nxP	AC 10 SS 24/7 nxP	AC 10 SS 23/1 nxP	AC 10 S 26/1	AC 10 SP 24/7	AC 10 SS 24/7 1P	AC SS 24/7 nxP	AC SP 26/30	AC
							00					*
Cable lay up Single Element												
Conductor		Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Solid Cu-wires,	Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires	Stranded Cu-wires	s Stranded
		tinned	bare	bare	bare	bare	tinned	bare	bare	bare	bare	ż
		0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.12 mm <sup>2</sup>	- (
Insulation Dein einen mit		Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	HDPE	PE	-
Pair screen	5	Spiraled Cu-wires	PET-AI-Foil	Spiraled Cu-wires	PET-AI-Foil	PET-AI-Foil				PET-Al-foil		
Dair chaoth			+ stranded Cu-wires	+ stranded Cu-wires +	- stranded Cu-wires	+ solid Cu-wire				+ stranded Cu-wires		
Pair Sneath		PBI	FRNC	PVC	PVC	FRNC				Pvc Pvc		
Total construction												
Overall screen		Cu-braid	PFT-Al-foil		PFT-Al-foil	PFT-Al-foil	Al-PFT-foil	Spiraled	PFT-Al-foil	PET-Al-foil	Spiraled Cu-wires	s P
		tinned	+ Cu-braid	+	- stranded Cu-wires	+ Cu-braid	+ solid Cu-wire	Cu-wires -	+ stranded Cu-wires	+ stranded Cu-wires	bare	+ strander
		timitou	· ou pruiu			. ou bruiu	Solid Od Mile	00 11100	and Cu-braid	· Stranded od Wires	Nuis	. · otranace
Sheath		FRNC, PUR,	FRNC	DMC Flex PVC	DMC Flex PVC	FRNC	PVC, FRNC	DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	
		DMC Flex PUR										
Electrical properties												
Attenuation at (MHz) Nor	minal value											
0.015	(dB/100 m)	0.55	0.55	0.30	0.30	0.33	4.00	0.30	0.45			
1		3.00	3.00	1.50	2.50	2.50	6.80	1.50	2.40			
4		5.30	5.30	3.80	4.20	4.20	10.00	3.80	4.60			
10		8.10	8.10	6.00	6.30	6.30	13.90	6.00	6.70			
Characteristic impedance	at 6 MHz	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω		1164.04	
DC loop resistance at 20 C $\pm$ 5 C		$\leq 288 \Omega/Km$	≤ 288 Ω/KM	≤ 1/5 Ω/KM	$\leq 1/5 \Omega/KM$	≤ 165 Ω/KM	≤ 288 Ω/Km	$\leq 1/5 \Omega/KM$	≤ 1/4 Ω/Km	5 1/5 Ω/Km	≤ 164 Ω/KM	
Mutual capacitance		110111. 4511F/ KIII	110111. 4511F/ KIII	110111. 4011F/KIII	HOIH. 45HF/KIII	110111. 4511F/KIII	110111. 4511F/KIII	nom. 45nr/km	110111. 4011F/KIII	1011. 901F/KII		1 110111.
Diameter												
						1.60	3.00	5.00	6.00		2 65	5
2P			700	10.90	9.20	4.00	5.00	5.00	0.00	8.30	2.03	
4P		9.00	8.40	11.60	10.20	0.50				920		
8P		10.90	11.90	14.90	14.80	13.00				12.00		
10P		12.50	13.70			15.10						
12P		13.50	14.10	18.70	17.00	15.60				15.50		
Product code												
1 P						CT 7649010	CT 7650200 <sup>2</sup>	on request	CT 2757601		CT 2963800	) СТ
2P			CT 7652410	CT 2956200	CT 2967300	CT 7649710				CT 2961500		
4P		on request	CT 7651610	CT 2956300	CT 2967400					CT 2959500		
8P		on request	CT 7652111	CT 2956400	CT 2967500	CT 7648710				CT 2959600		
10P		on request	CT 7651811			CT 7649410						
12P		CT 26606001	CT 7651911	CT 2956600	CT 2967600	CT 7649510				CT 2959700		
<sup>1</sup> sheat = DMC Flex PUR <sup>2</sup> sheat = FR	NC A	AES/EBU-standard, AR	D-specification, DIN VDE	0472 part 804, test met	thod B and C, IEC 60332	-1, IEC 60332-3 CF				All cable	types are available with	h up to 48 pair

					Digital Worlds Capacity Fire Protection Video cables Audio cables Triax Multicore Light&Sound							
Cable type		Modulationcable nxP	e AC 10 SS 26/7 nxP	AC 10 SP 24/7 nxP	AC 10 SS 24/7 nxP	AC 10 SS 23/1 nxP	AC 10 S 26/1	AC 10 SP 24/7	AC 10 SS 24/7 1P	AC SS 24/7 nxP	AC SP 26/30	AC
							000					
Cable lay up Single Elemen	t											
Conductor		Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Solid Cu-wires,	Solid Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires	Stranded Cu-wires	Stranded
		tinned	bare	bare	bare	bare	tinned	bare	bare	bare	bare	-
		0.14 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.25 mm <sup>2</sup>	0.14 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.22 mm <sup>2</sup>	0.12 mm <sup>2</sup>	1
Insulation		Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	HDPE	PE	
Pair screen		Spiraled Cu-wires	PET-Al-Foil	Spiraled Cu-wires	PET-AI-Foil	PET-AI-Foil				PET-Al-foil		
			+ stranded Cu-wires	+ stranded Cu-wires	+ stranded Cu-wires	+ solid Cu-wire				+ stranded Cu-wires		
Pair sheath		PBT	FRNC	PVC	PVC	FRNC				PVC		
		Cu harid	DET AL 6-1			DETAL		Creineled			Carinalad Cu winaa	
Overall screen		Cu-braid	PE I-AI-TOII		PE I-AI-TOII	PE I-AI-TOII	AI-PE I-TOII	Spiraled	PE I-AI-TOII	PE I-AI-TOII	Spiraled Cu-wires	, F
		tinned	+ Cu-braid		+ stranded Cu-wires	+ Cu-braid	+ solid Cu-wire	Cu-wires -	F stranded Cu-wires	+ stranded Cu-wires	bare	+ stranded
Shoath			FDNC	DMC Flox DVC	DMC Flox DVC	FDNC		DMC Flox DVC		DMC Flox PVC	DMC Flox DVC	
Sheath		DMC Flex PUR	TINC	DIVICTIENTVC	DIVICTIENT VC	TINIC	r vC, r itilic	DIVICTIENT VC	DIVICTIENTVC	Divicitiex i ve	DIVICTIENT	
		Dino Flex For										
Electrical properties												
Attenuation at (MHz)	Nominal value											
0.0	)15 (dB/100 m)	0.55	0.55	0.30	0.30	0.33	4.00	0.30	0.45			
	1	3.00	3.00	1.50	2.50	2.50	6.80	1.50	2.40			
	4	5.30	5.30	3.80	4.20	4.20	10.00	3.80	4.60			
	10	8.10	8.10	6.00	6.30	6.30	13.90	6.00	6.70			
Characteristic impedance	at 6 MHz	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω	110 Ω			
DC loop resistance at 20°(	$C \pm 5^{\circ}C$ and 500V	≤ 288 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 175 Ω/km	≤ 165 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 174 Ω/km	≤ 175 Ω/km	≤ 164 Ω/km	1 ≤
Mutual capacitance	at 800 Hz	nom. 45nF/km	nom. 45nF/km	nom. 46nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km	nom. 46nF/km	nom. 90nF/km	nom. 75nF/km	nom.
Diameter												
1 P						4.60	3.00	5.00	6.00		2.65	j
2P			7.00	10.90	9.20	8.30				8.30		
4P		9.00	8.40	11.60	10.20					9.20		
8P		10.90	11.90	14.90	14.80	13.00				12.00		
10P		12.50	13.70			15.10						
12P		13.50	14.10	18.70	17.00	15.60				15.50		
Product code												
1P			07.7/20//0	07-005-0000	07.00/7000	CT 7649010	CT 7650200 <sup>2</sup>	on request	CT 2757601		CT 2963800	
2P			CT 7652410	CT 2956200	CT 2967300	CT 7649710				CT 2961500		
42		on request	CT 7651610	07 2956300	CT 2967400					CT 2959500		
0P		on request	CT 7652111	CT 2956400	CT 2967500	CT 7648710				CT 2959600		
120			CT 7051011	CT 205((00)	CT 20(7(00	CT 7649410				CT 2050700		
		CT 2660600	CI 1021AII	CT 2956600	CT 296/600	CT 7649510				CT 2959700		
' sheat = DMC Flex PUR <sup>2</sup> sh	neat = FRNC	AES/EBU-standard, AR	D-specification, DIN VDE	0472 part 804, test me	thod B and C, IEC 60332	-1, IEC 60332-3 CF				All cable	types are available with	n up to 48 pai

#### S 24/7





# **Tri-Athletics**

Camera teams supply impressive moments from sport, culture, politics or events of the day worldwide. Extensive productions are realized in recording studios. The assigned camera cables determine the quality of this - unique pictures, recordings, impressions. To exhaust the potential function of the used cameras, we offer you our highperformance camera cables Triax or Triflex.



#### Compatibility

and Triflex are suitable for all common camera systems.

as assemblers we obtain short delivery available with PUR (Polyurethane) outer times for our assembled camera cables. sheath, enabling the Triax-cables to be

**Typically Triax:** Best transmission quality basing on low attenuation and lowest DC-resistance even in large application lengths. Furthermore: minimal weight and long lifespan.



#### Triax

Camera cables of our product lines Triax Our product line Triax is optimized for the requirements of the studio technology. Best transmission quality basing on low attenuation, lowest DC-resistance (even in Based on our close cooperation with ex- large application lengths), a long lifespan perienced triaxial connector manufactures and a minimal weight are characteristically like Damar & Hagen, Fischer, Lemo as well of our Triax camera cables. The cables are robust and flexible at any time.

#### Triflex

Our Triflex-cables fulfil the high demands of mobility of the used camera cables during outdoor productions. This is ensured by fine stranded wire inner conductor, combined with a special rubber compound between the braids. The outer sheath is made of a high flexible PVC-material, available with a special abrasion resistant PUR-outer sheath upon request.

Cable type	Triax 8 +8/1	Triax 11+11/1	Triax 14	Triflex 8 +8/1	Triflex 11	Hybrid camera cable 311 M
		Triax camera cables		Trifle	ex camera cables	
Construction						
Inner conductor	Cu-wire,	Cu-wire,	Stranded Cu-wire,	Stranded Cu-wire,	Stranded Cu-wire,	
	silver plated	silver plated	silver plated	silver plated	silver plated	
	ø 1.0 mm	ø 1.4 mm	ø 2.2 mm	ø 1.0 mm	ø 1.4 mm	
Insulation	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	Foam skin-PE	
	ø 4.5 mm	ø 6.5 mm	ø 9.7 mm	ø 4.5 mm	ø 6.5 mm	The state of the s
1 <sup>st</sup> outer conductor	Cu-braid,	Cu-braid,	Cu-braid,	Cu-braid,	Cu-braid,	
	silver plated	silver plated	silver plated	silver plated	silver plated	Cable lay up
	ø 5.1 mm	ø <b>7.1</b> mm	ø 10.5 mm	ø 5.1 mm	ø 7.1 mm	Diameter mm 9
Insulation	PE.	PE.	PE.	TPE	TPE	Number and dimension auxiliary conductor 4 x 0.6 m
	ø 6.6 mm	ø 8.6 mm	ø 11.9 mm	ø 6.6 mm	ø 8.6 mm	Number of signal conductor 2 x 0.22 m
2 <sup>nd</sup> outer conductor	Cu-braid,	Cu-braid,	Cu-braid,	Cu-braid,	Cu-braid,	Number of fibre optics 2 x 9/12
	bare	bare	bare	bare	bare	Number of strength memberst Ø 1 x 2.1 m
	ø 7.2 mm	ø 9.2 mm	ø 12.7 mm	ø 7.2 mm	ø 9.2 mm	
Sheath	PVC, FRNC	PVC, FRNC	PVC, FRNC	Special-PVC	Special-PVC	
	or PUR	or PUR	or PUR	or FRNC	or FRNC	Mechanical Properties
standard/reinforced	ø 8.4 mm/8.9 mm	ø 10.9 mm/12.2 mm	ø 14.5 mm/-	ø 8.4 mm/9.2 mm	ø 10.9 mm/-	Bending radius mm 65
						Sheat
						Sheat

Electrical properties	S					
Attenuation	MHz	1 10 100 300	1 10 100 300	1 10 100 300	1 10 100 300	1 10 100 300
	dB/100 m	0.6 2.2 7.5 13.8	0.5 1.6 5.4 10.3	0.4 1.1 3.8 7.7	0.7 2.6 8.4 15.1	0.5 1.8 6.5 11.6
Characteristic		75 Ω ± 3 %	75 $\Omega$ ± 3 %	75 $\Omega \pm$ 3 %	<b>75</b> Ω ± 3 %	<b>75</b> Ω ± <b>3</b> %
Impedance						
DC-resistance	Ω/km	25	13	6	28	15
inner conductor	Ω/km	12	10	6	12	10
1 <sup>st</sup> outer conductor	r/2 <sup>nd</sup> outer conduc	tor Ω/km 10	8	4	10	8
Isulation resistance						
Inner conductor/1	l <sup>st</sup> outer conductor	$(M\Omega \times km) \ge 10^4$	≥ 10 <sup>4</sup>	≥ 10 <sup>-4</sup>	≥ 10 <sup>-4</sup>	≥ 10 <sup>₄</sup>
1 <sup>st</sup> outer conductor	r/2 <sup>nd</sup> outer conduc	tor (M $\Omega$ x km) $\geq 10^{3}$	≥ 10 <sup>3</sup>	≥ 10 <sup>3</sup>	≥ 10 <sup>3</sup>	≥ 10 <sup>3</sup>
Capaticity at 800 H	lz pF/m	54	54	54	54	54
Return loss	MHz	1-100 100-300	1-100 100-300	1-100 100-300	1-100 100-300	1-100 100-300
	dB	≥ 26 ≥ 23	≥ 26 ≥ 23	≥ 26 ≥ 23	≥ 26 ≥ 23	≥ 26 ≥ 23
Screening factor	dB	≥ 75	≥ 75	≥ 75	≥ 75	≥ 75
Operating voltage		300 V eff.	400 V eff.	600 V eff.	300 V eff.	400 V eff.

Product code								
	Triax 8	Triax 8/1	Triax 11	Triax 11/1	Triax 14	Triflex 8	Triflex 8/1	Triflex 11
PVC	CT 2765700		CT 2766400		CT 2766700	CT 2767300		CT2767400
FRNC	CT 2853201	CT 2853203	CT 2850801		CT 7666700			
PUR	CT 2765500		CT 2766600	CT 2767101	CT 2767000	CT 2767900	CT 2767901	CT 2768100
PE			CT 2766404		CT 2766704			

Other cable types on request.

**Digital Worlds** Capacity **Fire Protection** Video cables Audio cables Triax Multicore Light&Sound

#### Product code

Other cable types on request

The hybride-HDTV-camera cable is applicable as a camera cable for slomos, as a camera cable for studio applications, as a patch cable or as a camera cable for mobile applications.

It is used in professional video productions for simultaneous transmission of energy, video, audio and control signals and is intended to interconnect camera units and base stations in conjunction with the connector interface standard (outdoor). It is suitable for all new digital camera systems of well-known manufacturers.



OT.	2007000	
(.)	2987000	
· · ·		



# Proven quality

The smooth performance of your proved camera systems of Philips, Bosch, Sony, Ikegamy, JVC, RCA and Thomson are a valuable factor for years! To make sure that your systems function without any limit in the future, we are stocking our reliable multicore camera cables. So we can realize a short delivery time of multicore camera cables for common systems in case of repair or replacement.



#### Multifunctionally

Characteristically for our multicore camera cables is the proven high-quality and long lifespan. The cables are set up of various single cores and contain:

- Low attenuation and low distortion 75-t-coaxial cables for picture signals, synchronization and electronic view finder.
- Screened power supply cores.
- Pilot and alarm-cores for optical piloting, synchronization, remote indicator of the optical position and temperature as well as communication between the operating personnel.
- Power cores for spots.
- High-voltage cores for anode tension and for piloting of tube laying on considerably high potential.



Nowadays camera pictures supply top events. Whether the quality is likewise impressive also depends on the used camera cables

## Cable type

Diameter	mm
Number and dimension coaxial	75 Ω
Number of power cores	mm²
Number of cores	mm²
unscreened/screened	

Mechanical properties	
Bending radius	mm
Sheath	

#### Product code

Other cables types on request.

Multicore
Triax
Audio cables
Video cables
Fire Protection
Capacity
Digital Worlds

Light&Sound 755-901 752-10

755-804	757-703	755-901	752-10	756-12	758-2/1 HDTV	Premium Patch CAT7	VAN	VA 12	VAN 113
20.0	16.0	22.2	10.0	12.7	13.5	7.0	14.0	11.8	13.5
5 x 0.8/3.7 AF	7 x 0.6/2.8 AF	5 x 1.0/4.8 AF	2 x 0.6/2.8 AF	6 x 0.38L/1.7	3 x 0.6/2.8 AF		2 x 0.6/2.8 AF	1 x 0.8/3.7 AF	1 x 0.6L/2.8 AF
					+5 x 0.38L/1.7				
			2 x 1.5 mm²,	2 x 1.5 mm²,	6 x 0.5 mm²,		3 x 1.5 mm².		3 x 1.0 mm <sup>2</sup>
			unscreened	unscreened	unscreened		screened		unscreened
			5 x 0.14 mm²,	9 x 0.14 mm²,	2 x 0.14 mm <sup>2</sup> ,		3 x 2	2 x 2	1 x 2
			unscreened	unscreened	screened		x 0.22 mm²	x 0.22 mm <sup>2</sup>	x 0.14 mm <sup>2</sup>
				8 x 0.14 mm²,	4 x 0.14 mm <sup>2</sup> ,		screened	screened	screened
				screened	unscreened				
200.0	220.0	225.0	95.0	130.0	140.0	25.0	140.0	120.0	120.0
DMC Flex PVC	PUR	FRNC-C	DMC Flex PVC	PVC	DMC Flex PUR	DMC Flex PUR	PUR	DM Flex PVC	DM Flex PVC

200.0	220.0	225.0	95.0	130.0	140.0	25.0	140.0	120.0	
DMC Flex PVC	PUR	FRNC-C	DMC Flex PVC	PVC	DMC Flex PUR	DMC Flex PUR	PUR	DM Flex PVC	DM F

CT2961400	CT2758800	CT2985800	CT274050	0 CT2739100	CT2739901	CT2602700	CT2877000	CT2875700	CT2

155-604
75 = Characteristic impe-
dance of the coaxia-
les 5 = Number of
coaxiales
8 = cable construction
01 = FRNC
02 = PVC

V = Video A = Audio N = Power supply

1 = 1 x Video 1 = 1 x Audiopair

3 = 3 x Power element

03 = PUR 04 = DMC Flex PVC

### VAN 113



VAN 113



## Live on stage

Luxurious illumination- and stage-shows, reporting motion pictures, unique concerts or documentations from all continents we offer cable solutions for light & sound, microphone and speakers.

Our cables are available with high-flexible and abrasion resistant outer sheath made of DMC Flex PUR or DMC Flex PVC.



#### Microphone Cable

Our microphone cables are designed to correspond with the requirements of stage applications as well as the qualitaty requirements for professional studio productions.

The DMC Flex PUR sheath is especially abrasion resistant and cold-resistant. In cooperation with the connector manufacturer Neutrik, Zurich and the Swiss TV we have developed a cold resisting, digital microphone cable. During the winter games in Davos, the cable was successfully tested under extreme temperature conditions.

Besides, our analogue and digital microphone cables are used in speaker cabins or for post production. The cables are suitable for fixed installations or mobile applications.

In the world of multimedia the border of time and space seems to abolish.

## Speaker Cable

Thousands of people are listening to a live concert, cabling of hi-fi systems, edit suites or post production – the right sound is absolutely necessary. You obtain best sound transmission quality by using our highquality speaker cables with a DMC Flex PVC sheath. Round and flexible, they grant an easy wind up of the cable.



Bending radius

Cable type

Cable lay up Conductor

Overall screen

Number of powercores Sheath

Product code

Other cables types on request.



Light&Sound
Multicore
Triax
Audio cables
Video cables
Fire Protection
Capacity
Digital Worlds

DMX Power	DMX PAT 512N	Micro 22	Micro D 22	Micro 22 outside	Guitarr cable DMC 1/6	Guitarr cable DMC 1/4	
				AES/EBU			
Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	Stranded Cu-wires,	
tinned,	tinned,	bare,	bare,	bare,	bare,	bare,	
0.34 mm <sup>2</sup>	0.34 mm <sup>2</sup>	2 x 0.22 mm <sup>2</sup>					
PE	PE	PVC	PVC	Foam skin-PE	PE	PE	
PET-AI-foil +	PET-Al-foil +	Spiraled Cu-wires	2 x Spiraled Cu-wires	Aramide +	Spiraled Cu-wires	Spiraled Cu-wires	
stranded Cu-wires	stranded Cu-wires			spiraled Cu-wires			
3 x 1.5 mm²,							
screened							
DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	DMC Flex PVC	DMC Flex PUR	DMC Flex PVC	DMC Flex PVC	
es e							

15.6 mm	5.7 mm	6.0 mm	6.0 mm	6.5 mm	6.2 mm	4.0 x 8.0 mm	
160 mm	60 mm	25 mm	25 mm	30 mm	25 mm	25 mm	
CT 2966000	CT 29955701	CT 2989503	CT 2986200	CT 2963500	CT 2757700	CT 2745000	

## Light & Sound

Here you find our products for light control and musical instruments (for example E-guitar). Our guitar cables with graphite layer (low-noise guitar cables) reduce the interference caused by statistical boost to a minimum. We offer high quality products and take care of the practically orientated requirements, such as flexibility, long application lengths and abrasion resistance.

Our digital cables for light control fulfil the DMX 512 standard. They are suitable for fixed installation and mobile application and allow a simple controlling even by long transmission paths.

To grant the perfect sound of an electric or an electric amplified instrument we have designed a special cable. Due to the DMC Flex PUR sheath and an unsymmetrical construction it is easy to wind up and nevertheless robust. The cable construction ensures a low loss and high-quality transmission during application in studios and on stage.