



Draka

Draka Media & Broadcasting Solution

WHO ENABLES THE BROADCASTING OF EVENTS?
DRAKA STUDIO BROADCAST CABLES



A brand of the

Prysmian
Group

Prysmian Group

Linking the future

As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.

With this in mind, we provide major global organisations in many industries with best-in-class cable solutions, based on state-of-the-art technology. Through two renowned commercial brands – Prysmian and Draka – based in almost 100 countries, we're constantly close to our customers, enabling them to further develop the world's energy and telecoms infrastructures, and achieve sustainable, profitable growth.

In our energy business, we design, produce, distribute and install cables and systems for the transmission and distribution of power at low, medium, high and extra-high voltage. In telecoms, the Group is a leading manufacturer of all types of copper and fibre cables, systems and accessories – covering voice, video and data transmission.

Drawing on over 130 years' experience and continuously investing in R&D, we apply excellence, understanding and integrity to everything we do, meeting and exceeding the precise needs of our customers across all continents, at the same time shaping the evolution of our industry.



What links communications to communities?

Cable solutions to support the development of the world's telecoms infrastructure

As the world's largest producer of telecoms cables, supporting the infrastructures of many of the world's leading telecoms operators, the Prysmian Group delivers optical fibre and copper cabling solutions that help link communications to communities around the globe.

Covering voice, video and data transmission, we are world leader in the production of optical fibre, offering unique and fully owned technology. Our portfolio sets the benchmark in global innovation, and is the outcome of continuous multi-million Euro investment in R&D and production in more than 30 facilities worldwide.

Quality cables for the transmission of digital and analogue audio and video signals to professional levels

RANKED AS NUMBER ONE IN EUROPE, DRAKA IS A LEADING PROVIDER OF PROFESSIONAL BROADCAST AND STUDIO CABLES. SINCE 1958 DRAKA BROADCAST SOLUTIONS HAVE DELIVERED LEVELS OF TECHNICAL EXCELLENCE THAT HAVE PROVEN THEMSELVES IN PRACTICE UNDER THE MOST DEMANDING CONDITIONS.

Draka broadcast cables are optimally tailored to an information and entertainment market which is now spanning the analogue and digital world. Whether broadcasting a regional traffic report by a local radio station or the transmission of a World Class soccer into the world – the success of broadcast production always depends on the reliability of the audio, video, camera and lighting control cables. Draka has decades of experience in the cable manufacturing, research and development in close cooperation with broadcasting professionals.

Inspiring partnerships

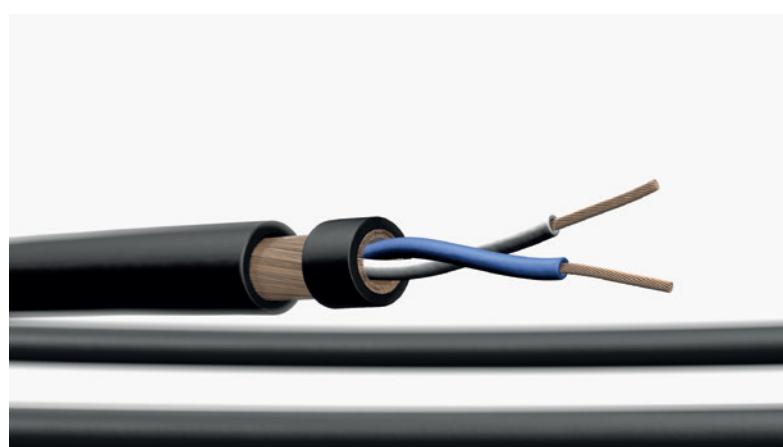
Since the beginning of professional broadcasting, Draka has worked in close cooperation with leading national and international broadcasting companies. Leading edge solutions in the form of high-quality analogue, SDI, HDTV and hybrid fiber optic arise from these partnerships. With 30 billion viewers around the globe, the World Cup 2006 in Germany, for example, was the most-watched event in television history during a period of 4 weeks. Draka delivered the cables necessary for this new record and enabled broadcasts in HDTV for the first time. Draka also supported Euro Masters 2008 in Austria and Switzerland. Draka meets the specifications of national broadcasters as well as with AES/EBU, SMPTE, IEC, EN and VDE.

Leading sound studios are users of Draka cables. Superior quality of sound requires cutting edge technology where cabling is an essential link. In this field, Draka offers modern cable solutions for analogue and digital recording as well as for microphone and speaker cabling. As one of the world's leading manufacturers of passive network cables, Draka can guarantee the high efficiency of passive transmission cables which are produced using the latest technology. For live events, there is only a single chance for a successful performance. There is no alternative to absolute reliability. Draka offers the best solutions for lighting control, sound, microphone and speaker interconnections and can quickly respond to the requirements of production companies in order to guarantee an optimum live performance.

Comprehensive product line

The studio broadcast solutions of Draka comprise:

- High-precision analogue and digital 75 Ω video cables
- Analogue and digital multicore audio cables
- Microphone cables, speaker cables
- Lighting control and Sound cables
- Camera cables for studio and outdoor transmission
- Multicore camera cables
- Studio connecting cables
- Hybrid camera cables





Factors 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 $75\ \Omega$ video cables, 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 highly flexible cables for musical instruments.
- Triax camera cables for the electric connection between camera and CCU; also available as Triflex cable for mobile application.
- Multicore camera cables assembled for leading camera systems upon request.
- Studio connecting cables for spacesaving and ergonomic application.
- Optical fiber 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 available with various outer sheath versions: PVC, PVC-rubber, FRNC or PUR. 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.



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

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 CAPACITY RESERVES -TRANSMISSION RESULTS ARE OUTSTANDING EVEN WHEN USING LONG APPLICATION LENGTHS. THIS IS ACHIEVED BY THE APPLICATION OF SELECTED MATERIALS AND AN OPTIMAL CABLE DESIGN.

Transmission quality

Digital demands imply a good transmission performance. The quality of the signals is often limited by typical interference factors. 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.

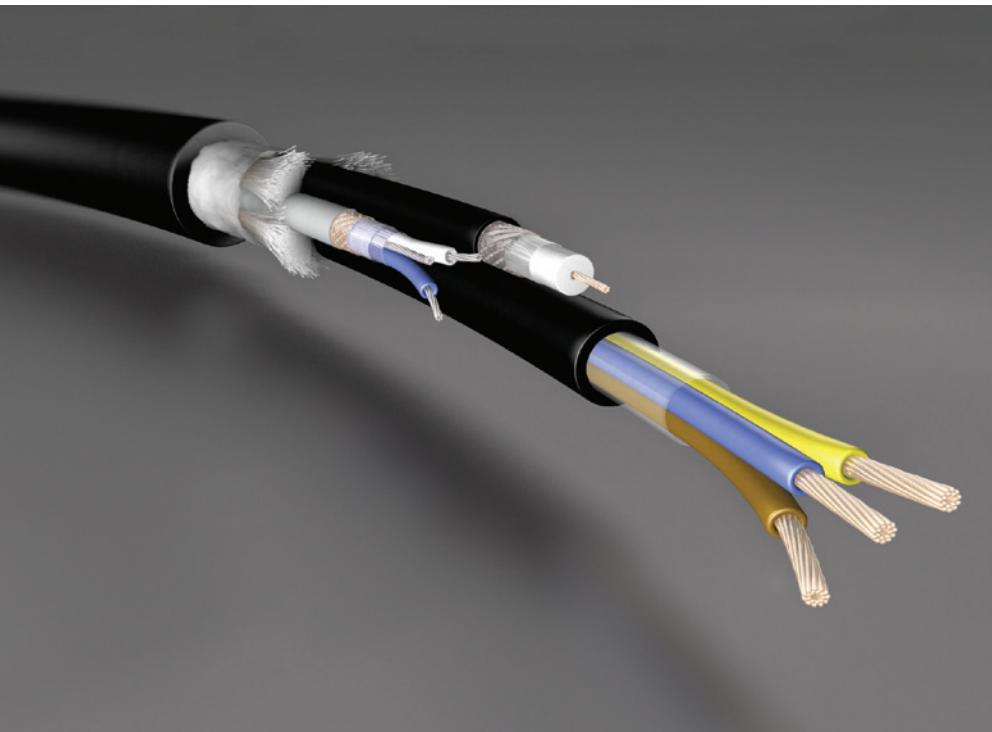
We apply an aluminium-laminated foil and a tight, tinned copper braid for fixed installations. For mobile applications we recommend our highly flexible cables with a screening of spiraled wires.

Screening Factor

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

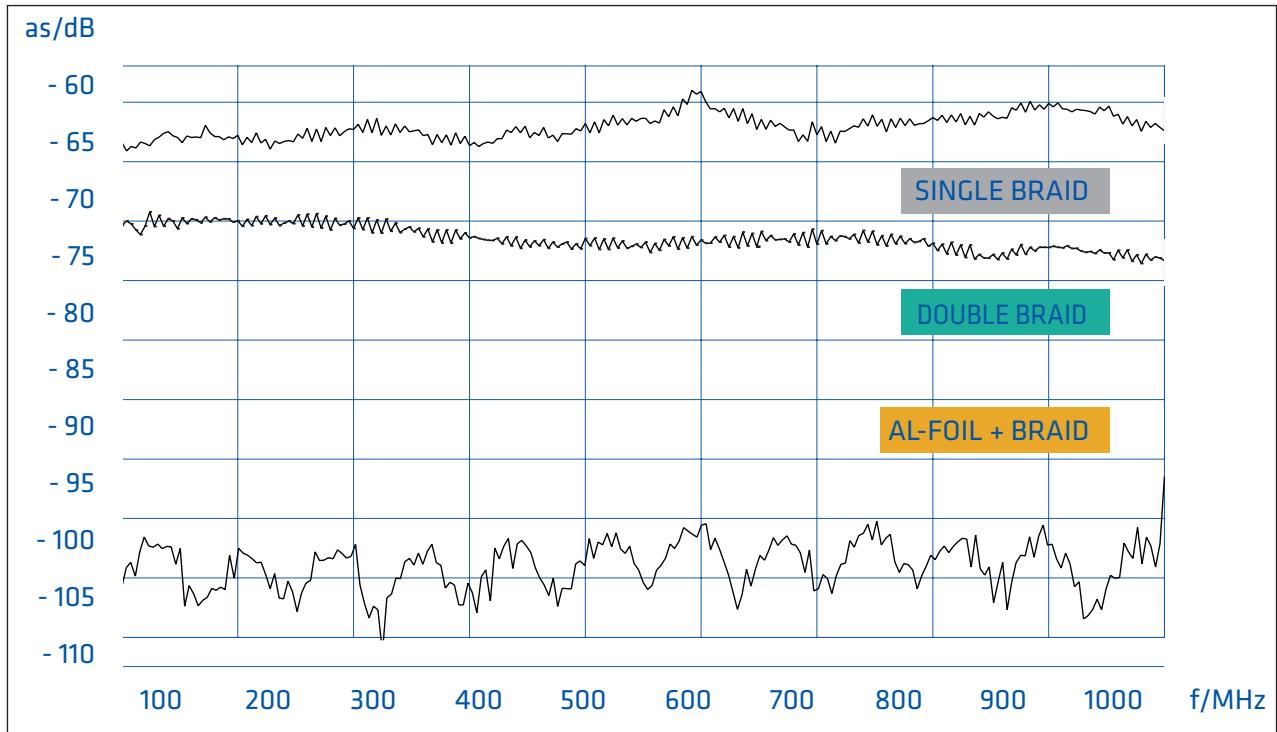
Fact is: the higher the screening factor, the better the noise-immunity of the cable. A screening of aluminium-double-laminated foil plus braid results (at 300 MHz) in a screening efficiency improved by 20 dB in comparison to a cable screened with a double braid.

Compared to a cable screened with a single braid, the screening factor even increases by 30 dB. With this production quality 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.



Multicore camera cables: coaxial elements, power-, audio- and pilot cores. Upon request, our studio cables are available with halogenfree FRNC sheath.

Screening factor



Maximum transmission distance

Draka Video Cable Types	Attenuation at 1.5GHz (half clock frequency) as per data sheet [dB]	Calculated application length acc. To SMPTE 424M [m]	3Gb/s HD 1080P max. cable length tested TG 700 & WFM 8300 of Tektronix [m]
0.6/2.8 AF	43.2	47	80
0.8/3.7 AF	31.3	64	110
0.8L/3.7 Dz	33.9	59	100
1.0/4.8 AF	24.9	72	130
1.4/6.6 AF	19.6	102	190
1.6/7.3 AF	16.9	119	230
HD PRO 0.6/2.8 AF	39.6	50	100
HD PRO 0.8/3.7 AF	30.6	66	120
HD PRO 1.0/4.8 AF	24.9	80	150

Fire protection

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. THEY EVEN EMIT CORROSIVE AND TOXIC GASES. WHERE STRONG SECURITY REGULATIONS HAVE TO BE ADHERED TO WE CAN PROVIDE STUDIO CABLES WITH FRNC (FLAME-RETARDANT-NON-CORROSIVE) SHEATH.



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 60332-3-24) 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.

At a glance

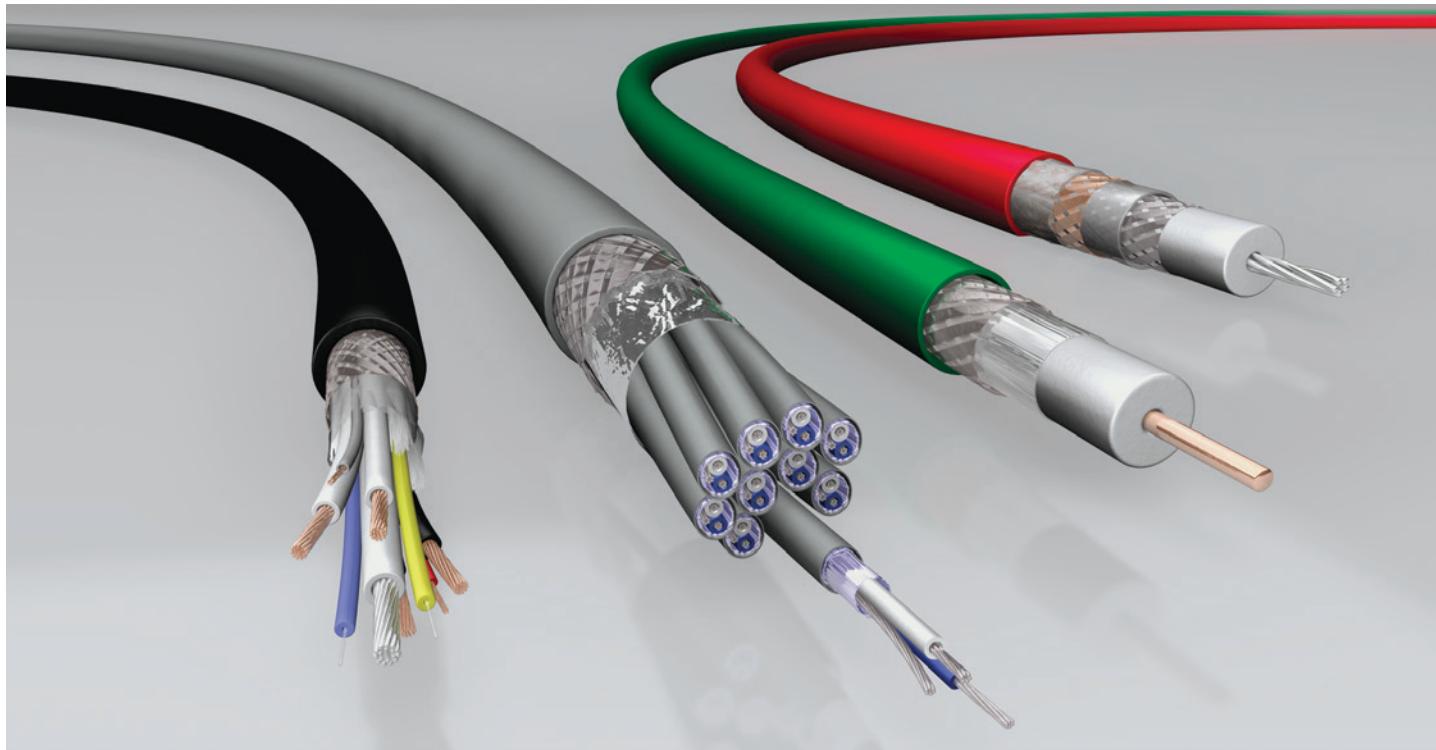
- No fire propagation as the cable extinguishes itself automatically, i.e. no transmission of the local fire alongside the cables.
- No emission of corrosive gases.
- Very low smoke production.
- No Dioxin in the fire remains.



A 60 cm long piece of cable is exposed to a flame for 60 seconds. The cable does not ignite.



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 production of smoke.



FIND OUT MORE ABOUT OUR BROADCASTING AND MEDIA CABLES BY VISITING US AT WWW.DRAKA.COM/COMMUNICATIONS OR WWW.PRYSMIANGROUP.COM. THERE YOU WILL FIND CERTIFICATION INFORMATION, DATA SHEETS, WHITE PAPERS, AND MORE. OR EMAIL US AT MULTIMEDIA@PRYSMIANGROUP.COM

Radio and television stations as well as film stations are using our wide variety of products, ranging from audio-, video- and triax cables, microphone and loudspeaker cables as well as optical fibre cables.

The wide range of different applications reflects not only our extensive application know-how, but also its decades of experience and considerable competence in the field of cables. After all, our roots go back to the 19 th century.

As a reliable partner of trading, industrial and service companies we offer flexible, trend-setting cabling concepts which provide a high measure of investment security.

Not least responsible for that is the development department which works permanently on new solutions for the markets of tomorrow.



Video cables - Brilliance

NOWADAYS HIGH-QUALITY PICTURES ARE STANDARD. WITH A NARROW CHARACTERISTIC IMPEDANCE TOLERANCE, OUR VIDEO CABLES PROVIDE PERFECT CONDITIONS FOR AN OPTIMAL COMBINATION BETWEEN SWITCHER AND MIXER AS WELL AS BETWEEN VTR AND MONITOR.

Choice of material

Due to the application of cellular PE insulation material in combination with double laminated aluminium foil and tinned copper braid with high optical coverage, our video cables reach maximum electrical characteristics.

Beside the used materials, the cable design and the exact insulation are essential for the quality of our video cables. We pay attention to these requirements, 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 much 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

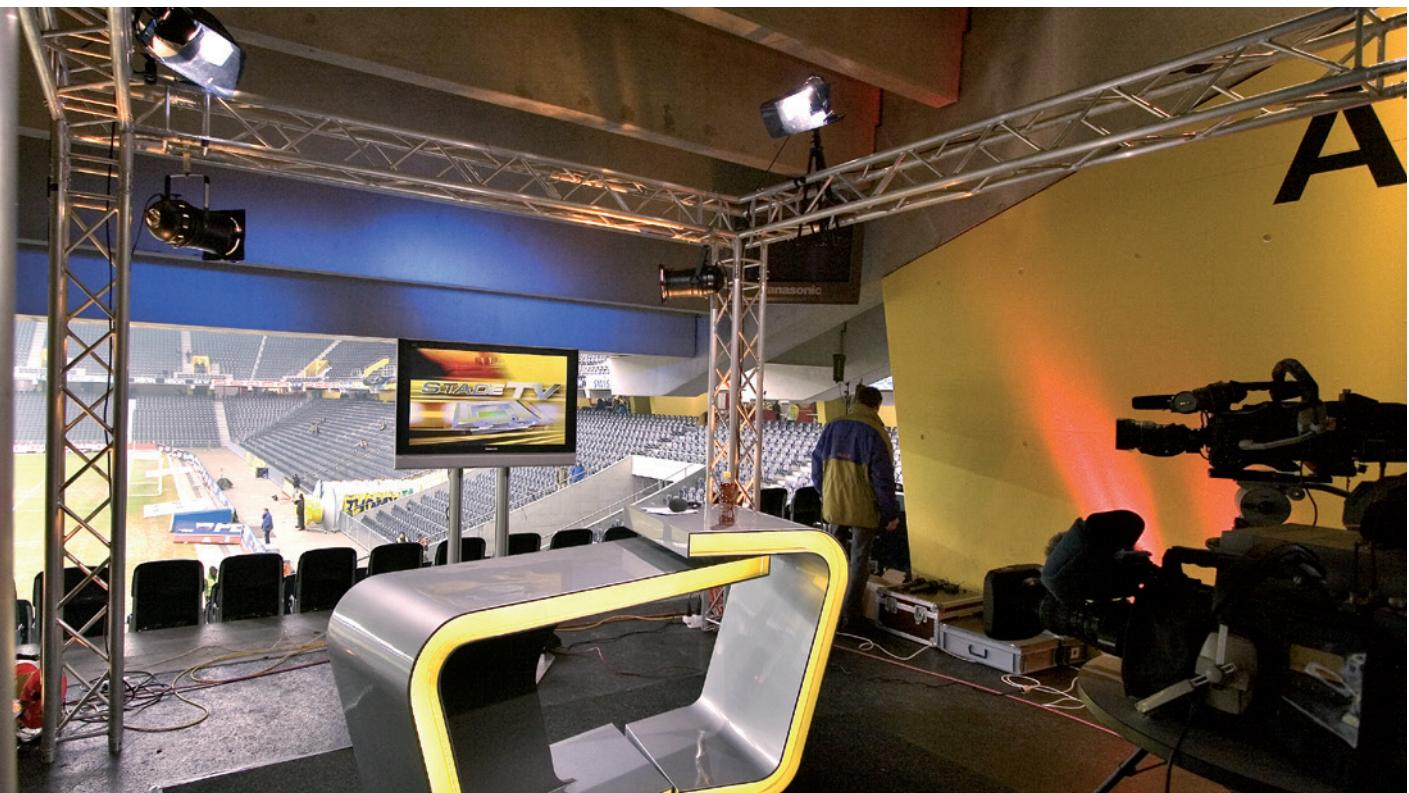
Our video cables fulfil the regulation R2 of European and International standards like IEC 60 801-4 and EN 50083-2.

References

Proven Quality: The result of a comparative research by the independent institute RBT in Nuremberg attested our efforts in the product quality.



Even in video transmission systems up to 1.5 GHz our video cables ensure a screening value of > 100dB at a very low transfer impedance.



Video cables



Cable type	0.6/2.8 AF	0.8/3.7 AF	1.0/4.8 AF	1.4/6.6 AF
Electrical properties				
Attenuation* at (dB/100 m)				
5 MHz	2.5	1.9	1.6	1.0
100 MHz	10.5	7.9	6.2	4.8
500 MHz	24.5	17.6	14.8	12.0
1000 MHz	35.3	25.5	20.7	17.9
2250 MHz	54.0	39.5	31.7	27.5
3500 MHz	70.7	51.7	41.5	36.0
Characteristic impedance	Ω	75 ± 0.75	75 ± 0.75	75 ± 0.75
Mutual capacitance	pF/m	56	56	56
Screening factor	dB	> 100	> 100	> 100
Maximum application length at digital TV-transmission*				
Data rate Mbit/s	Application length			
143 NTSC SMPTE 170M	m	290	385	485
177 Composite PAL	m	255	340	430
270 SDI	m	230	305	365
360 Widescreen	m	200	265	315
1500 HDTV SMPTE 292M	m	60	80	100
Mechanical properties				
Diameter	mm	4.5	5.9	7.0
Weight	kg / km	27.0	49.0	69.0
Tensile force	N	60	100	140
Product code				
PVC	CT SAP	CT SAP	CT SAP	CT SAP
	2738600 1002160	2710800 1002151	2758300 1002198	2758400 1002200
FRNC-B				
FRNC-C	CT SAP	CT SAP	CT SAP	CT SAP
DMC Flex PUR	2850202 1002203	2850301 1002206	2850401 1002208	2850601 1002211
Other cable types on request				

* 90 % of the calculated max. lengths

Analogue + Digital

			
1.6/7.3 AF	HD PRO 0.6/2.8 AF	HD PRO 0.8/3.7 AF	HD PRO 1.0/4.8 AF
0.9	2.5	1.9	1.6
4.5	10	7.9	6.2
11.0	24	17.6	14.8
16.2	33.2	25.5	20.7
25.0	90.2	39.5	31.7
32.7	65.8	51.7	41.5
75 ± 0.75	75 ± 0.75	75 ± 0.75	75 ± 0.75
56	56	56	56
> 100	> 100	> 100	> 100
<hr/>			
705	290	385	485
630	255	340	430
530	230	305	365
460	200	265	315
161	66	91	112
<hr/>			
10.3	4.5	5.9	7.0
150.0	27.0	49.0	69.0
270	60	100	140
<hr/>			
CT SAP	SAP	SAP	SAP
2757800 1002197			
	1014488	1014489	1014490
2760901 1002202			

Analogue

				
0.6/3.7	0.6/3.7 Dz	0.8/4.9 Dz	1.0/6.6	
2.4	2.4	1.8	1.4	
10.9	10.9	8.0	6.5	
25.7	25.7	19.2	15.5	
	36.3	27.1	39.2	
	56.5	47.0		
75 ± 0.75	75 ± 0.75	75 ± 0.75	75 ± 0.75	
67	67	67	67	
> 65	> 75	> 75	> 65	
	285	380		
	245	325		
	200	265		
	170	225		
	55	75		
6.0	6.3	7.4	9.2	
50.0	70.0	86.0	100.0	
70	200	200	150	
CT SAP	CT SAP	CT SAP	CT SAP	
2740200 1002172	2741001 1002185	2741601 1002189	274200 1002191	
7640200 1002213			2741001 1002216	

Audio cables - The world of sounds

IN ORDER TO ENABLE A REALIZATION OF OPTIMAL TRANSMISSION, WE HAVE DEVELOPED A WIDE 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 a special cable design. Therefore, our audio cables grant a low ER (relative permittivity) and low loss factor thanks to a foamskin insulation with narrow tolerances. Thus, our digital audio cables achieve a specified characteristic impedance of 110Ω and data rates of 3 Mbit/s (single channel) and 6 Mbit/s (two-channel).

Transmission quality

We produce audio cables for the high demands of studios and broadcasting vans designed to provide a perfect transmission quality. What characterizes our products is a low fire load and a high aging and abrasion resistance.

Interference transmission resistance

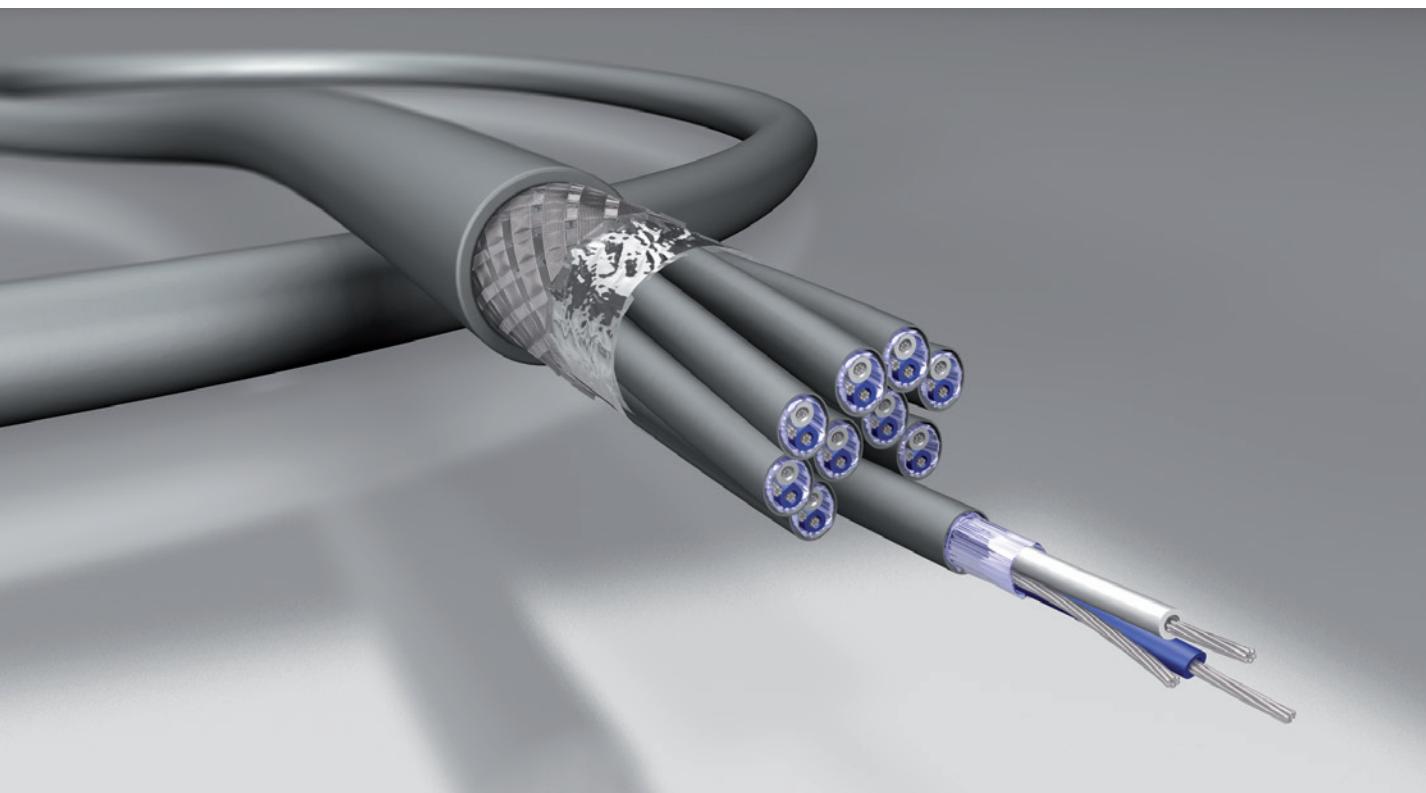
Perfectly adjusted twisting of the pairs and an excellent individual screening guarantee interference transmission resistance, immunity to outer interferences and lowest cross talk even at high frequencies.

The right cable for every demand

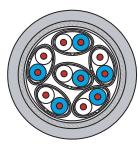
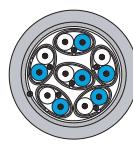
Mobile application (e.g. outdoor live transmission of a concert) calls for high flexibility. Particularly suitable for this purpose are our products with the flexible spiraled copper wire screen. Fixed installations require high performances and best electromagnetic compatibility. This is guaranteed by an overall screening consisting of aluminium laminated foil and tight tinned copper braid.



Audio cables for digital and analogue broadcasting and TV-technique offer an enjoyment of sound to the audience



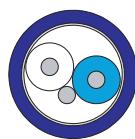
Audio cables



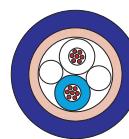
Cable type	Digital Sound nxP	AC 10 SS 26/7 nxP	Profisound Flex	AC 10 SS 23/1
Cable design Single Element				
Conductor	Stranded Cu-wires bare 0.12 mm ²	Stranded Cu-wires tinned 0.14 mm ²	Stranded Cu-wires bare 0.22 mm ²	Solid Cu-wires bare 0.25 mm ²
Insulation	Foam PP	Foam skin-PE	Foam skin-PP	Foam skin-PE
Pair screen	Spiraled Cu-wires	PET-AI-Foil + stranded Cu-wires	PET-AI-Foil + stranded Cu-wires	PET-AI-Foil + solid Cu-wire
Total construction				
Overall screen	Cu-braid tinned	PET-AI-Foil + Cu-braid		PET-AL-Foil + CU-braid
Sheath	DMC Flex PUR	FRNC	DMC Flex PVC	FRNC
Electrical properties				
Attenuation at (MHz)	Nominal value			
0.015	(dB/100 m)	0.6	0.55	0.30
1		3.0	3.00	2.50
4		6.0	5.30	4.20
10		10.9	8.10	6.30
Characteristic impedance at 6 MHz	110 Ω	110 Ω	110 Ω	110 Ω
DC loop resistance at i 20°C ± 5°C and 500V	≤ 288 Ω/km	≤ 288 Ω/km	≤ 175 Ω/km	≤ 165 Ω/km
Mutual capacitance	at 800 Hz	nom. 45nF/km	nom. 45nF/km	nom. 45nF/km
Diameter				
1P				4.60
2P		7.00	9.20	8.30
4P		8.40	10.00	10.90
8P		11.90	12.50	13.00
10P	10.50	13.70		14.00
12P		14.10	15.00	15.60
Product code				
	SAP	CT SAP	SAP	
1P				7649010 1002105
2P		7652410 1002147		7649710 1002115
4P		7651610 1002126	1017131	
8P		7652111 1002142	1017132	7648710 1002103
10P	1016552	7651811 1002134	1018130	7649410 1002111
12P		7651911 1002137	1017133	7649510 1002113

* FRNC AES/EBU-standard, ARD-specification, DIN VDE 0472 part 804, test method B and C, IEC 60332-1, IEC 60332-3 CF

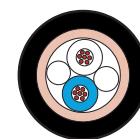
Digital



AC 10 S 26/1



AC 10 SS 24/7



XLR PRO Flex
analog / digital

Solid Cu-wires tinned 0.14 mm ²	Solid Cu-wires bare 0.22 mm ²	Solid Cu-wires bare 0.22 mm ²
Foam skin-PE	Foam skin-PE	Foam skin-PE
PET-Al-Foil + Cu-braid	Stranded Cu-wires	Stranded Cu-wires
PVC, FRNC	DMC Flex PVC	DMC Flex PVC
0.60	0.45	0.30
4.00	2.40	1.50
6.80	4.60	3.80
10.00	6.70	6.00
110 Ω	110 Ω	110 Ω
≤ 288 Ω/km	≤ 174 Ω/km	≤ 174 Ω/km
nom. 45nF/km	nom. 45nF/km	nom. 45nF/km
3.00	6.00	6.50
15.10		
7650200* 1002118	2757601 1001982	1018270
7649410 1002111		

Analogue



AC SP 26 / 30



AC S 24 / 7

Stranded Cu-wires	Stranded Cu-wires
bare	bare
0.12 mm ²	0.22 mm ²
PE	HDPE
Spiraled Cu-wires	PET-Al-Folie
bare	+ stranded Cu-wires
DMC Flex PVC	PVC
≤ 164 Ω/km	≤ 175 Ω/km
nom. 75nF/km	nom. 90nF/km
2.65	3.30
CT SAP	
2963800 1002062	2962000 1002044

AC 10 SS 24/7 nxP

AC = **A**udio **C**able

10 = **t**ested **f**requency
range **i**n **M**Hz

SS = **s**uper **s**creen
pair **s**creen **a**nd
overall **s**creen **w**ith
Al-laminated
plastic **f**oil

SP = **s**piraled **s**creen
ppairs **i**n **s**piraled **w**ires

S = **s**creen
Al-laminated
plastic **f**oil

23 = **AWG**-value
conductor
diameter

nxP = **N**umber of **p**airs

Camera cables - The world of pictures

CAMERA TEAMS SUPPLY IMPRESSIVE MOMENTS FROM SPORTS, CULTURE, POLITICS OR EVENTS OF THE DAY WORLDWIDE. EXTENSIVE PRODUCTIONS ARE REALIZED IN RECORDING STUDIOS. THE ASSIGNED CAMERA CABLES DETERMINE THE QUALITY OF THESE UNIQUE PICTURES, RECORDINGS AND IMPRESSIONS. TO EXHAUST THE POTENTIAL FUNCTION OF THE USED CAMERAS, WE OFFER YOU OUR HIGH-PERFORMANCE CAMERA CABLES TRIAX, TRIFLEX OR SMPTE 311M.

Compatibility

Camera cables of our product lines Triax and Triflex are suitable for all common camera systems.

Based on our close cooperation with experienced triaxial connector manufacturers like Damar & Hagen, Fischer, Lemo as well as assemblers, we obtain short delivery times for our assembled camera cables.

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 with long application

lengths), a long lifespan and a minimal weight are characteristic for our Triax camera cables. The cables are available with PUR (Polyurethane) outer sheath, enabling the Triax cables to be robust and flexible at any time.

Triflex

Triflex cables fulfil the high mobility requirements of the used camera cables during outdoor productions. This is ensured by fine-stranded wire inner conductors, 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.



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



Camera cables



Cable type	Triax 8 + 8/1	Triax 11+11/1	Triax 14
Cable design			
Inner conductor	Cu-wire silver plated Ø 1.0 mm	Cu-wire silver plated Ø 1.0 mm	Stranded Cu-wire silver plated Ø 2.2 mm
Insulation	Foam skin-PE Ø 4.5 mm	Foam skin-PE Ø 6.5 mm	Foam skin-PE Ø 9.7 mm
Inner screen	silver plated Ø 5.1 mm	silver plated Ø 7.1 mm	silver plated Ø 10.5 mm
Insulation	PE Ø 6.6 mm	PE Ø 8.6 mm	PE Ø 11.9 mm
Outer screen	Cu-braid bare Ø 7.2 mm	Cu-braid bare Ø 9.2 mm	Cu-braid bare Ø 12.7 mm
Sheath	PVC, FRNC or PUR	PVC, FRNC or PUR	PVC, FRNC or PUR
Standard/reinforced	Ø 8.4 / 8.9 mm	Ø 10.9 / 12.2 mm	Ø 14.5 mm / -
Electrical properties			
Attenuation MHz (dB/100 m)	1 10 100 300 0.6 2.2 7.5 13.8	1 10 100 300 0.5 1.6 5.4 10.3	1 10 100 300 0.4 1.1 3.8 7.7
Characteristic impedance	75 Ω ± 3 %	75 Ω ± 3 %	≈ 75 Ω ± 3 %
DC-resistance Ω/km			
Inner conductor Ω/km	25	13	6
Inner screen Ω/km	12	10	6
Outer screen Ω/km	10	8	4
Insulation resistance			
Inner conductor/inner screen (MΩ x km)	≥ 10 ⁴	≥ 10 ⁴	≥ 10 ⁴
Inner screen/outer screen (MΩ x km)	≥ 10 ³	≥ 10 ³	≥ 10 ³
Capacitance at 800 Hz pF/m	54	54	54
Return loss MHz dB	1-100 100-300 ≥ 26 ≥ 23	1-100 100-300 ≥ 26 ≥ 23	1-100 100-300 ≥ 26 ≥ 23
Screening factor dB	≥ 75	≥ 75	≥ 75
Operating voltage	300 V eff.	400 V eff.	400 V eff.

Product codew	CT SAP				
	Triax 8	Triax 8/1	Triax 11	Triax 11/1	Triax 14
PVC	2765700 1002223		2766400 1002226		2766700 1002236
FRNC	2853201 1002266	2853203 1002268	2850801 1002264		7666700 1002273
PUR	2765500 1002221		2766600 1002233	2767101 1002243	2767000 1002240
PE			2766404 1002229		2766704 1002239

Triflex camera cables



Triflex 8+8/1

Triflex 11

Triflex 8+8/1	Triflex 11
Stranded Cu-wire	Stranded Cu-wire
silver plated	silver plated
Ø 1.0 mm	Ø 1.4 mm
Foam skin-PE	Foam skin-PE
Ø 4.5 mm	Ø 6.5 mm
silver plated	silver plated
Ø 5.1 mm	Ø 7.1 mm
TPE	TPE
Ø 6.6 mm	Ø 8.6 mm
Cu-braid	Cu-braid
bare	bare
Ø 7.2 mm	Ø 9.2 mm
Special PVC	Special PVC
or FRNC	or FRNC
Ø 8.4 / 9.2 mm	Ø 10.9 / -
1 10 100 300	1 10 100 300
0.7 2.6 8.4 15.1	0.5 1.8 6.5 11.6
75 Ω ± 3 %	75 Ω ± 3 %
28	15
12	10
10	8
≥ 10 ⁴	≥ 10 ⁴
≥ 10 ³	≥ 10 ³
54	54
1-100 100-300	1-100 100-300
≥ 26 ≥ 23	≥ 26 ≥ 23
≥ 75	≥ 75
300 V eff.	400 V eff.

CT SAP	CT SAP	CT SAP
Triflex 8	Triflex 8/1	Triflex 11
2767300 1002244		2767400 1002249
2767900 1002255	2767901 1002256	2768100 1002259

Hybrid camera cable SMPTE 311M



Cable lay up		
Diameter	mm	9.2
Number and dimension auxiliary conductor		4 x 0.60 mm ²
Number of signal conductor		2 x 0.22 mm ²
Number of fiber optics		2 x 9/125µ
Number of strain relief elements	Ø	1 x 2.10 mm
Mechanical properties		
Bending radius	mm	65.00 mm
Sheath		PUR
Product code		
CT		2987002

Other cable types on request

The hybrid HDTV camera cable is applicable as a camera cable for slmos, 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 power, video, audio and control signals and is intended to interconnect camera units and base stations in conjunction with the connector interface standard. It is suitable for all new digital camera systems of well-known manufacturers.

Multicore - Proven quality

THE SMOOTH PERFORMANCE OF YOUR PROVEN CAMERA SYSTEMS OF PHILIPS, PANASONIC, BOSCH, SONY, IKEGAMI, HIATACHI, JVC, RCA AND THOMSON HAVE BEEN 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.

Compatibility

Camera cables of our product lines Triax and Triflex are suitable for all common camera systems.

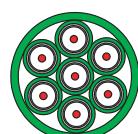
Based on our close cooperation with experienced triaxial connector manufacturers like Damar & Hagen, Fischer, Lemo as well as assemblers, we obtain short delivery times for our assembled camera cables.

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 with long application



Multicore



Cable type	755-804	757-703	755-901	752-10
Cable design				
Diameter mm	20.0	16.0	22.2	10.0
Number and dimension of coaxial	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
Number of powercores mm ²				2 x 1.5 mm ² unscreened
Number of cores mm ²				5 x 0.14 mm ² unscreened unscreened
Mechanical properties				
Bending radius mm	200.0	220.0	225.0	95.0
Sheath	DMC Flex PVC	PUR	FRNC-C	DMC Flex PVC
Product codew		CT SAP	CT SAP	CT SAP
		2961400 1002319	2758800 1002285	2985800 1002325
				2740500 1002370

Other cables types on request

755-804

- 75: Characteristic impedance of the coaxiales
- 5: Number of coaxiales
- 8: cable construction
- 01: FRNC
- 02: PVC
- 03: PUR
- 04: DMC Flex PVC



756-12



758-2/1 HDTV



Premium Patch CAT7

12.7	13.5	7.0
6 x 0.38L/1.7	3 x 0.6/2.8 AF +5 x 0.38L/1.7	
2 x 1.5 mm ²	6 x 0.5 mm ²	
unscreened	unscreened	
9 x 0.14 mm ²	2 x 0.14 mm ²	
unscreened	unscreened	
8 x 0.14 mm ²	4 x 0.14 mm ²	
unscreened	unscreened	
CT SAP	CT SAP	CT SAP
2739100 1002366	2739901 1002369	2602700 1006811



VAN



VA 12



VAN 113

VAN	VA 12	VAN 113
14.0	11.8	13.5
2 x 0.6/2.8 AF	1 x 0.8/3.7 AF +5 x 0.38L/1.7	1 x 0.6L/2.8 AF
3 x 1.5 mm ² screened		
3 x 2 x 0.22 mm ² screened	2 x 2 x 0.22 mm ² screened	1 x 2 x 0.14 mm ² screened
140.0	120.0	120.0
PUR	DM Flex PVC	DM Flex PVC
CT SAP	CT SAP	CT SAP
2877000 1002306	2875700 1002302	2963200 1002321

VAN 113

V = Video
A = Audio
N = Power supply
1 = 1 x Video
1 = x Audiopair
3 = x Power element

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 HIGHLY 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 quality 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.

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 high-quality speaker cables with a DMC Flex PVC sheath. Round and flexible, they grant an easy wind up of the cable.

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 statical boost to a minimum. We

offer high-quality products and take care of the requirements related to practice, 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 routes. To ensure the perfect sound of an electric or an electrically 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 design ensures a low loss and high-quality transmission during application in studios and on stage.





Cable type	DMX PAT 512N	Micro 22	Micro 22 outside	Guitar cable DMC 1/6
Cable design				
Conductor	Stranded Cu-wires tinned 0.34 mm ²	Stranded Cu-wires bare 2 x 0.22 mm ²	Stranded Cu-wires bare 2 x 0.22 mm ²	Stranded Cu-wires bare 2 x 0.22 mm ²
Insulation	PE	PVC	Foam skin-PE	PE
Overall screen	PET-Al-Foil Stranded Cu-wires	Spiraled Cu-wires	Aramid Spiraled Cu-wires	Spiraled Cu-wires
Number of powercores				
Mechanical properties				
Diameter	5.7 mm	6.0 mm	6.5 mm	6.2 mm
Bending radius	60 mm	25 mm	30 mm	25 mm
Product code				
	CT	CT SAP	CT SAP	SAP
	29955701	2989503 1002099	2963500 1002059	2757700 1002523

Other cables types on request.

Future Perspective Cabling Solutions

We have offices and production facilities all over the world. To get in touch with us and find out how we can help you build your network, visit our website at www.draka.com/communications or contact us.

AUSTRIA*

Lemböckgasse 47A
A-1230 Vienna
Phone: +43 1 294 0095 16
Telefax: +43 1 294 0095 97
martina.horak@
prysmiangroup.com
* including: Hungary, Czech Republic,
Slovakia, Slovenia, Albania,
Macedonia, Romania and Bulgaria

DENMARK

Priorparken 833,
DK-2605 Broendby
Phone: +45 6039 2600
Telefax: +45 4343 7617
dk-comm-cc@
prysmiangroup.com

FINLAND*

Metsäneidonkuja 8
FI-02130 Espoo
Phone: +358 10 56 61
Telefax: +358 10 56 63 394
fi-info@prysmiangroup.com
* including: The Baltic States

FRANCE

Le Sophocle -
Parc demAlgorithmes
9, Avenue du Marais
95100 Argenteuil
Phone: +33 1 34 34 41 30
Telefax: +33 1 30 76 40 12
DrakaCustomerCare.MMSFrance
@prysmiangroup.com

GERMANY

Friedrichshagener Str. 29-36
D - 12555 Berlin
Phone: +49 30 65 485 760
Telefax: +49 30 65 485 602
berlin.info@prysmiangroup.com

GERMANY*

Piccoloministr 2
D-51063 Cologne
Phone: +49 221 67 70
Telefax: +49 221 67 73 890
koeln.info@prysmiangroup.com
* including: Switzerland

ITALY

Prysmian Cables and Systems
Viale Sarca 222
20126 Milano
Phone: +39 02 64493201
Telefax: +39 02 64495060
multimedia@prysmiangroup.com
www.prysmian.com

NETHERLANDS

Draka Kabel B.V.
Hamerstraat 2-4
1021 JV Amsterdam
Phone: +31 20 637 9911
Telefax: +31 20 6379363
multimedia@prysmiangroup.com
www.draka.nl

NETHERLANDS*

Zuidelijk Halfvondt 11
NL-2801 DD Gouda
Phone: +31 182 59 21 00
Telefax: +31 182 59 22 00
nl.dct.info@prysmiangroup.com
* including: Belgium and Luxembourg

NORWAY*

Kjerraten 16
3013 Drammen
Phone: +47 32 24 90 00
Telefax: +47 32 24 9116
multimedia@prysmiangroup.com
* including: Sweden and Iceland

RUSSIA

Neva Cables Ltd.
8th Verkhny pereulok, 10,
Industrial Zone PARNAS
RUS-St. Petersburg, 194292
Phone: +7 812 6006671
Telefax: +7 812 6006683
office@nevacables.ru

SINGAPORE

Singapore Cables Manufacturers
Pte Ltd, SCM
Draka Comteq Singapore Pte Ltd, DCS
Prysmian Cables Systems Pte Ltd, PCS
Draka Vietnam (SCM Rep Office)
No 20 Jurong Port Road, Jurong Town
Singapore 619094
Phone: +65 6265 0707
Telefax: +65 6265 2226
ronald.wee@prysmiangroup.com

SPAIN*

Can Vinyalets núm. 2
E-08130 Sta. Perpetua de Mogoda
Barcelona
Phone: +34 935 74 83 83
Telefax: +34 935 60 13 42
multimedia@prysmiangroup.com
* including: Portugal and Italy

TURKEY*

Haktan Is Merkezi No:39 Kat 2
setstu Kabatas
34427 Istanbul
Phone: +90 212 393 77 00
Telefax: +90 212 393 77 64
tpks@prysmiangroup.com
* including: All other countries
in Africa and Middle East

UNITED KINGDOM*

Crowther Road,
Crowther Industrial Estate,
Washington, Tyne and Wear,
NE38 0AQ
Phone: +44 191 415 50 00
Telefax: +44 191 415 82 78
comtequk@prysmiangroup.com
* including: Ireland

www.draka.com/communications
www.prysmiangroup.com



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