

## QUICK STUDY GUIDE

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	Series	Pin Configuration(s)	Description
	<b>SVK</b>	13, 19, 25, 37, 54, 85, 100 & 150 pins	<i>Panel &amp; inline; IP67 waterproof rated; MIL-C-5015 compliant; gold or silver contacts</i>
	<b>SVS</b>	72 & 101 pins	
	<b>SHD</b>	13, 19, 25, 37, 54, 85, 100 & 150 pins	<i>Roadline: Enhanced, robust, heavy-duty version of the SVK Series</i>
	<b>SV</b>	24 Audio & 6 Video (Coax) Pins	<i>Panel &amp; Inline Audio/Video Hybrid Connectors; gold plated precision contacts</i>
	<b>SMA</b>	122 & 176 pins	<i>Hermaphroditic IP67 panel &amp; inline audio, up to 56 channels; gold plated solder contacts</i>
	<b>SPK</b>	4, 8 & 19 pins	<i>Pro loudspeaker panel &amp; inline; rubber locking ring; CA-COM mateable; silver &amp; gold solder or crimp contacts</i>
	<b>SPK8</b>	8 pin	<i>Adapter; CA-COM 8 compatible; male one end, female other end</i>
	<b>SB</b>	2, 3, 4, 6, 7, 8 & 9 pins	<i>HMI Ballast &amp; Lamp connector; 400W - 200KW; configurable; bayonet lock &amp; coupling roller; silver plated contacts</i>
	<b>SSX</b>	19, 16 pin   UL & Heavy Duty Versions	<i>Lighting connector; Socapex 419 compatible; panel &amp; inline; fast wiring, indestructible; IP67; first make, last break gold or silver plated contacts</i>
	<b>SPX</b>	Single Pole High Amperage Power Connectors	<i>Power 400A - 750A; panel &amp; inline; US, EU, UK &amp; AU color codes; IP67; IP2X; high impact shell; silver plated contacts</i>
	<b>SPZ</b>		
	<b>Cables</b>	Application Specific Cables	<i>Expertly engineered pro audio &amp; video features; power distribution; data</i>
	<b>Drums</b>	Cable Drums (featuring optional IO Side Panels)	
	<b>Glands</b>	Metric & PG types	<i>Glands, standard or spiral flex, metal, strain relief mesh grips, hanger grips</i>
	<b>Tooling</b>	Tooling & Accessories	<i>Contact us for more information</i>

v15.0

# DIGITAL CABLES

## DIGITAL MULTIPAIR mod. 7YDPR..SX



7YDPR04SX

- Conductors: tinned OFC 24 AWG - 28 x 0.10 mm
- Conductors jacket: white/blue gas injected foam - Ø 1,4 mm
- Drain wire: tinned OFC 24 AWG - 7 x 0.18 mm
- Screen: aluminium / mylar foil 100% coverage
- Operating temperature: -30° +70° C
- Pair jacket: Black PVC flame-retardant Ø=3.4 mm
- Nominal Impedance: 1-4 Mhz 110 Ω/100 mt
- D.C.R. conductors: <86 Ω/Km
- D.C.R. shield: <70 Ω/Km
- Capacitance cond./cond.: 1Khz 37 nF/Km
- Capacitance cond./shield: 1Khz 57 nF/Km
- Overall jacket: matt Black super flexible PVC flame-retardant

The SYNTAX DIGITAL MULTIPAIR cables are developed for those applications (either in fixed installations or outdoors) where the management of digital equipment are a very important part of the whole system.

The cables have been designed in accordance with the standard AES/EBU specifications, 110 Ω impedance and a very low capacitance thanks to the use of a special gas injected foam for the conductors' insulation.

The particular internal arrangement solves the problems of twisting and knotting of the cores while keeping the right flexibility. The pairs are twisted and individually shielded by aluminium foil with drain wire. The external jacket of each pair is individually numbered. The overall external jacket is made with a high tech PVC polymer, very flexible and impact absorbing, slipping over rough surfaces and granting suppleness even with low temperatures.

N. PAIR	PART N.	Ø CABLE
2	7YDPR02SX	9,6 mm
4	7YDPR04SX	11,2 mm
8	7YDPR08SX	14,8 mm
12	7YDPR12SX	17,4 mm
16	7YDPR16SX	19,5 mm

## DIGITAL AES/EBU INSTALLATION mod. 7XDCBL02SX

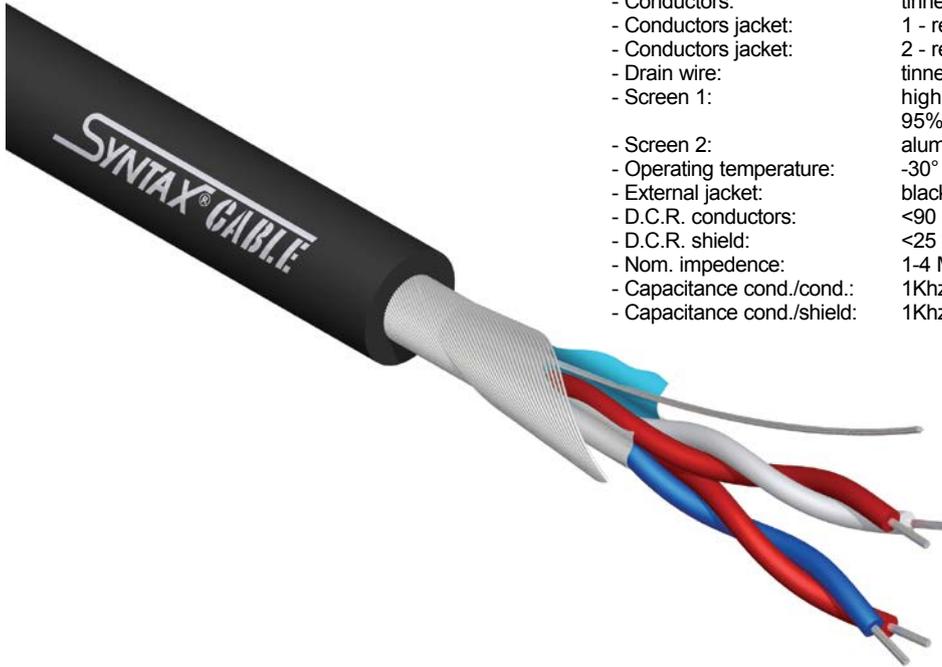


- Conductors: tinned OFC 24 AWG 28 x 0.10 mm
- Conductors jacket: white/blue gas injected foam - Ø 1,4 mm
- Drain wire: tinned OFC 24 AWG - 7 x 0.18 mm
- Screen: aluminium/mylar foil 100% coverage
- Nominal Impedance: 1-4 Mhz 110 Ω/100 mt
- D.C.R. conductors: <86 Ω/Km
- D.C.R. shield: <70 Ω/Km
- Capacitance cond./cond.: 1Khz 37 nF/Km
- Capacitance cond./shield: 1Khz 57 nF/Km
- Operating temperature: -30° +70° C
- Jacket: Black PVC flame-retardant Ø=3.4 mm

The SYNTAX® Digital Installation cable represents the best solution for the internal wiring of racks and digital equipment installations. The cables have been designed in accordance with the standard AES/EBU specifications, 110 Ω impedance and a very low capacitance thanks to the use of a special gas injected foam for the conductors' insulation.

The pairs are made up of tinned OFC conductors, twisted and shielded by aluminium foil with drain wire, providing 100% protection from external noises

## TWO PAIRS DIGITAL mod. 7XDDS07SX



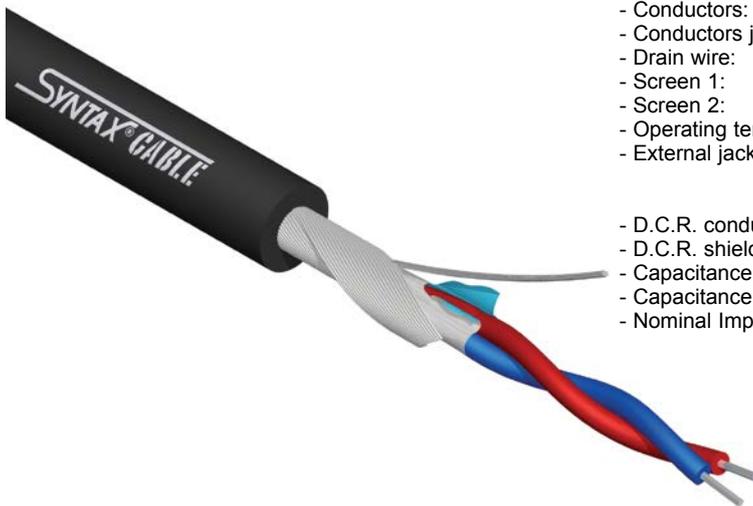
- Conductors: tinned OFC 24 AWG 19 x 0,12 mm
- Conductors jacket: 1 - red/blue Foam - Skin Ø 1,4 mm
- Conductors jacket: 2 - red/white Foam - Skin Ø 1,4 mm
- Drain wire: tinned OFC 24 AWG 19 x 0,12 mm
- Screen 1: high density spiral tinned OFC 95% coverage
- Screen 2: aluminium / polyester foil 100% coverage
- Operating temperature: -30° +70° C.
- External jacket: black PVC Ø 7,2 mm flame-retardant
- D.C.R. conductors: <90 Ω/Km
- D.C.R. shield: <25 Ω/Km
- Nom. impedance: 1-4 Mhz 110 Ω
- Capacitance cond./cond.: 1Khz 40 nF/Km
- Capacitance cond./shield: 1Khz 80 nF/Km

The SYNTAX® two twisted pairs digital cable is manufactured with reliably consistent impedance and features a special polymer sheath for low capacitance. The shield is made up of two different screens: the first is a high-density spiral tinned copper, the second is a aluminium/polyester foil.

The drain wire between the two screens makes connection easier.

The second pair may be used for the feedback signal on digital data lines. The external jacket is black PVC flame-retardant, trampling-proof, impact absorbing, water-proof and flexible for longer lifespan

## DIGITAL AES/EBU-DMX mod. 7XDDS03SXN - 7XDDS03SX



- Conductors: tinned OFC 24 AWG - 19x0,12 mm
- Conductors jacket: red/blue Foam Skin Ø 1,4 mm
- Drain wire: tinned OFC 24 AWG - 19x0,12 mm
- Screen 1: high density spiral tinned OFC 95% cov.
- Screen 2: aluminium/polyester foil 100% cov.
- Operating temperature: -30° +70° C.
- External jacket: PVC Ø 5,5 mm flame-retardant, Blue (7XDDS03SX), Black (7XDDS03SXN)
- D.C.R. conductors: <90 Ω/Km
- D.C.R. shield: <40 Ω/Km
- Capacitance cond./cond.: 1Khz 40 nF/Km
- Capacitance cond./shield: 1Khz 80 nF/Km
- Nominal Impedence: 1-4 Mhz 110 Ω/100 mt

SYNTAX® single pair DIGITAL AES/EBU-DMX CABLE, (standard AES/EBU and DMX use specifications) is manufactured with reliably consistent impedance and features a special polymer sheath for low capacitance.

To ensure a high protection level from EMI/RFI noise, the shield is made up of two different screens:

- the first is a high-density spiral tinned copper;
- the second is a aluminium/polyester foil.

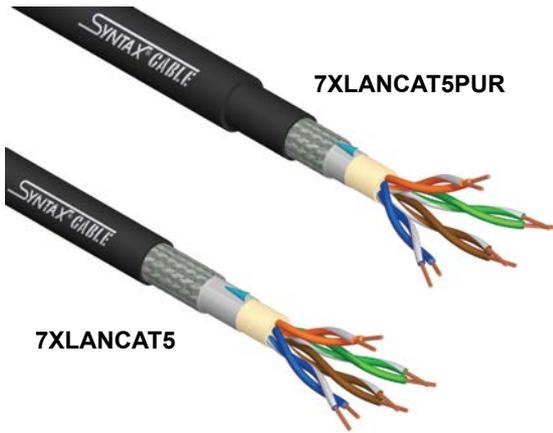
The drain wire between the two screens makes connection easier.

Black or Blue PVC flame-retardant external jacket, trampling-proof, impact absorbing and flexible for longer lifespan.

**Furter model is the halogen free 7XDDHF03SX for installation use with external dark green jacket LSZH**

# DIGITAL CABLES

## ETHERNET CABLES mod. 7XLANCAT5 - 7XLANCAT5PUR

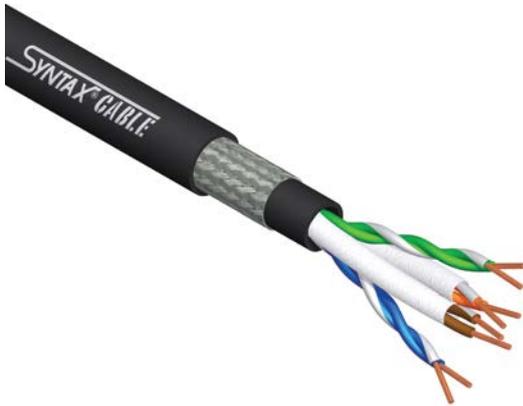


- Conductors: Solid bare OFC Ø=0,51 mm - 24 AWG
- Conductors jacket: Polyolefin Foam - Ø=0,95 mm
- Color code: green, white-green, orange, white-orange, blue, white-blue, brown, white-brown
- First screen: aluminium/mylar overlapping foil 100% tinned copper braid coverage >80%
- Second screen: tinned copper braid coverage >80%
- Resistance of conductors: < 90 Ω/Km
- Insulation resistance: > 8 GΩ per Km
- Capacity between conductors: 51 nF/Km
- Impedance from 1 to 100MHz: 100 Ω
- Operating temperature: -30° +70° C
- Jacket 7XLANCAT5: PVC black flame retardant Ø=6,4 mm
- Jackets 7XLANCAT5PUR:
  - First: PVC black flame retardant Ø=6,4 mm
  - Second: Polyurethane compound black Ø=7,7 mm

SYNTAX® offers a cable with high intrinsic quality, excellent flexibility and robustness to tackle the difficult jobs in the entertainment world, ensuring reliable performance in critical conditions. With the great spread of the Internet, this kind of cables, widely used in the computer world, are produced on a large scale to drive down prices, often at the expense of transmission quality and manageability. The Syntax CAT5e cable is designed for use in broadcasting and in all the network installations for transmission of high Class D bit-rates; it is compliant with ISO/IEC 11801 - EN 50173 - EIA/TIA 568B.2, ensuring accurate transmission of data up to 90 meter cable length. To maintain the correct data transfer along the entire length, it is very important that the body of the cable is not deformed by an alteration in the internal position of the four twisted pairs. In this regards, the use of a particular foamy compound keeps the twisted pairs fixed and properly spaced. Moreover, the presence of two shields (one in aluminium foil and the other in tinned copper braid) guarantees a 100% protection from external noise. The version PUR up-jacketed has been particularly designed for heavy outdoor application, for use on cable drum, for mobile transmission vehicles and wherever a high abrasion resistance and continuous bending cycles are needed, preserving an enduring transmission quality. When using this version, the second jacket should be removed near the RJ45 connector, in order to get the right diameter for assembling.

Frequency (MHz)	1	4	10	16	20	31.25	62.50	100
Attenuation (dB/100m)	2.0	3.8	6.1	7.5	8.6	10.7	15.6	19.9
Next (dB)	66.3	57.3	51.3	48.2	46.8	43.9	39.4	36.4

## ETHERNET mod. 7XLANCAT6PUR



- Conductors: Solid bare OFC Ø=0.57 mm - 23 AWG
- Conductors jacket: Polyolefin Foam - Ø=1 mm
- Color code: green, white-green, orange, white-orange, blue, white-blue, brown, white-brown
- First Jacket: PVC black Ø=6.2 mm flame retardant
- Screen: tinned copper braid coverage >80%
- Second jacket: PUR - Polyurethane compound black Ø=8.0 mm
- Resistance of conductors: < 75 Ω/Km
- Insulation resistance: > 5 GΩ/Km
- Capacity between conductors: 48 nF/Km
- Impedance from 1 to 250MHz: 100 Ω ± 15%
- Operating temperature: -30° +70° C

The SYNTAX® 7XLANCAT6PUR Cat6 cable is designed for mobile use in broadcasting and in all Class E network installations with transmission frequency up to 250MHz; it is compliant with ISO/IEC 11801 - EN 50173 - EIA/TIA 568B.2 and ensures accurate transmission of data up to 90 meter cable stretches. For optimal data transfer along the entire cable, the internal position of the four twisted pairs should not be altered. In this regard, a particular foamy tape has been used to surround the twisted pairs and keep them fixed and properly spaced, thus maintaining the correct structure of the cable throughout its length. A particular method has been used for the tinned copper braid shielding between the first and the second cable sheath, greatly improving the return loss values, which are usually critical with the standard S/FTP shielding. The outer polyurethane (PUR) sheath has been particularly designed for rigorous conditions in outdoor applications, for use on cable drum, for mobile media vehicles and wherever high abrasion resistance and continuous bending cycles are needed, preserving enduring transmission quality. This version of Cat6 can be wired with standard RJ45 connectors. In order to make the diameter right for assembling, the second jacket should be removed near the RJ45 connector.

Frequency (MHz)	1	4	10	16	20	31.25	62.50	100	200	250
Attenuation (dB/100m)	1.9	3.5	5.4	6.9	7.8	9.9	14.3	18.4	27.1	30.8
Next (dB)	89.3	79.3	69.3	64.7	62.6	58.7	53.0	49.4	44.6	43.2
Return Loss (dB/100m)	30.3	28.5	27.3	26.7	26.4	25.9	25.1	24.2	23.1	21.8