



- 1 Inner conductor: AWG23 Bare copper wire
- 2 PE insulated conductor: 1.5 mm Ø
- 3 Screen (pair): Alu PETP foil
- 4 Overall screen: Tinned braided copper
- 5 Outer sheath: FRNC/LSOH Orange RAL 2003



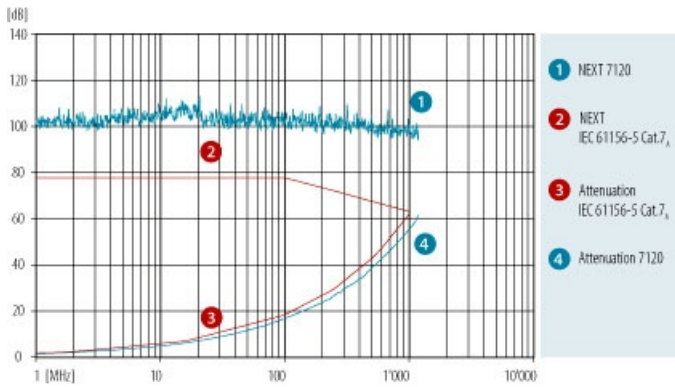
**DESCRIPTION**

Electrically and mechanically advanced quality Cat.7<sub>A</sub> data cable - fulfils the requirements of ISO/IEC 11801, IEC 61156-5, EN 50173-1 and EN 50288-9-1. Excellent shielding effect due to individually screened pairs and overall copper braid. Reduced outer diameter. Compatible with all current connecting hardware in accordance with EN 50173 and ISO/IEC 11801.

**APPLICATION**

Data cable for structured premises cabling. For the transmission of digital and analogue voice, video and data signals. Suitable for all ICT network applications up to class F<sub>A</sub> applications (1000 MHz) in accordance with EN 50173-1 and ISO/IEC 11801 and for the transmission of broadband signals (such as cable TV) in accordance with ISO/IEC 11801-4. Applicable for Power over Ethernet PoE / PoE+ / 4PPoE up to 100W.

**GRAPH**



**ELECTRICAL CHARACTERISTICS**

Category	1	4	10	5e	6	6 <sub>A</sub>	7	CATV	7 <sub>A</sub>	1300
Frequency [MHz]				100	250	500	600	862	1000	
Attenuation [dB/100m]	1.8	3.5	5.4	17.7	28	41	46	54	57	64
NEXT [dB]	103	103	103	103	103	98	96	92	90	85
PS NEXT [dB]	100	100	100	100	100	95	93	89	87	82
ACR-N [dB]	101	100	98	85	75	57	50	38	33	21
PS-ACR-N [dB]	98	97	95	82	72	54	47	35	30	18
ACR-F [dB]	108	106	104	92	82	69	64	56	53	46
PS-ACR-F [dB]	105	103	101	89	79	66	61	53	50	43
Return loss [dB]	26	30	33	33	28	26	25	24	23	20

These performance data are typical measured values.

## ELECTRICAL PROPERTIES

Category:	Cat.7 <sub>A</sub>
Coupling attenuation:	85 dB
Delay Skew:	14 ns/100 m
Impedance at 100 MHz, ±5Ω:	100 Ω
Loop resistance at 20°C:	< 134 Ω/km
Near end unbalance attenuation LCL at 1-600 MHz:	40 dB
NVP %:	76
operating capacity:	44 pF/m
Transfer impedance 1/10/30 MHz:	< 5/5/8 mΩ/m

## SUPPORTED APPLICATIONS

10Base-T, 100Base-T, 1000Base-T, 2.5GBase-T, 5GBase-T, 10GBase-T

## MECHANICAL PROPERTIES

Minimum bending radius during installation:	60 mm
Minimum bending radius permanently installed:	30 mm
Tensile strength (4P):	110 N
Tensile strength (2x4P):	220 N
Minimal crush resistance / 10cm:	1,000 N
Minimum number of impacts:	10
Installation temperature:	0 °C - +50 °C
Operating temperature:	-20 °C - +60 °C

## STANDARDS

Reaction to fire (Euroclass)	EN 13501-6: B2 <sub>ca</sub>
Wire colour	white/bluewhite/orangewhite/greenwhite/brown in accordance with IEC 60189 and IEC 60708
Imprint	DATWYLER «cable type» «additional text» «batch number» «meter marks»
Zero halogen, no corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2, AREI-RGIE Art.104-SA
Flame propagation	IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2, AREI-RGIE Art.104-F1
Flame spread	IEC 60332-3-24, EN 60332-3-24, AREI-RGIE Art.104-F2
Smoke density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2, AREI-RGIE Art.104-SD
PoE	IEEE 802.3bt
EMC	shielded
Segregation class	d
Cat./Class	Cat 7 <sub>A</sub> / Class F <sub>A</sub> - limit values as specified by IEC 61156-5 and EN 50288-9-1 guaranteed

## VERSIONS

Article No.	DoP	Product	Reaction to fire (Euroclass)	Dimensions n x p x [mm (AWG)]	Sheath	Sheath colour	Sheath Ø [mm]	Weight [kg/km]	Cu rate [kg/km]	Fire load [MJ/m]	Fire load [kWh/m]	PU
19146702BL		CU 7120 2x4P	B2ca-s1b,d1,a1	2 x (4 x 2 x 0.59 (AWG23))	FRNC/LSZH	orange	7.6 x 16.0	121	64.6	1.298 MJ/m	0.18	500 m drum
19146600BK		CU 7120 4P	B2ca-s1a,d1,a1	4 x 2 x 0.59 (AWG23)	FRNC/LSZH	orange	7.6	60	32.3	0.649 MJ/m	0.18	1000 m drum