



- 1 Inner conductor:** AWG23 Bare copper wire
- 2 PE insulated conductor:** 1.4 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 high-quality Cat.7 data cable - exceeds the requirements of ISO/IEC 11801, IEC 61156-5, EN 50173-1 and EN 50288-4-1.

Excellent shielding effect due to individually screened pairs and overall copper braid.

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 applications (600 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 IEC 15018.

Applicable for Power over Ethernet (PoE) / PoE+.

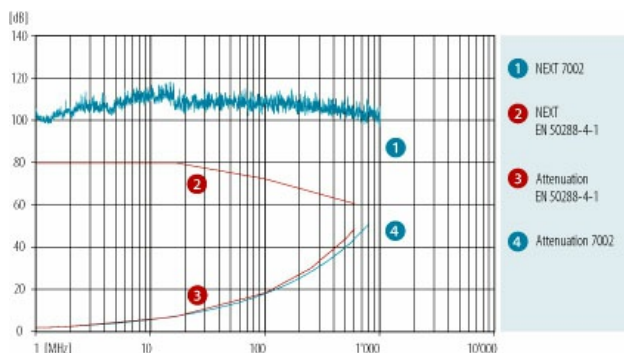
## ELECTRICAL CHARACTERISTICS

Category			5e	6	6A	7				
Frequency [MHz]	1	4	10	100	250	500	600	800	862	1000
Attenuation [dB/100m]	1.9	3.6	5.6	17.9	28	41	46	52	54	57
NEXT [dB]	100	100	100	100	100	92	90	84	83	80
PS NEXT [dB]	97	97	97	97	97	89	87	81	80	77
ACR-N [dB]	98	96	94	82	72	58	44	32	29	23
PS-ACR-N [dB]	95	93	91	79	69	55	41	29	26	20
ACR-F [dB]	98	98	98	78	69	56	45	39	37	33
PS-ACR-F [dB]	95	95	95	75	66	53	42	36	34	30
Return loss [dB]	26	30	33	33	28	26	25	23	22	20

These performance data are typical measured values.

## ELECTRICAL PROPERTIES

Loop resistance at 20° C:	140 Ω/km
Mutual capacitance:	42 pF/m
Impedance at 100 MHz:	100 Ω ±5 Ω
Transfer impedance at 1/10/30 MHz:	< 6/6/10 mΩ/m
Coupling attenuation (limit curve of critical state - IEC 61156):	> 85 dB
Near end unbalance attenuation	> 40 dB
LCL at 1-600 MHz:	
Delay Skew:	12 ns/100 m
NVP:	81%



## MECHANICAL PROPERTIES

		<b>CU 7002 4P</b>	<b>CU 7002 2x4P F8</b>
Bending radius (flat side)	during draw-in:	≥ 60 mm	≥ 60 mm
	permanently installed:	≥ 30 mm	≥ 30 mm
Tensile strength:		≤ 110 N	≤ 220 N
Crush resistance:		≥ 1000 N/10 cm	≥ 1000 N/10 cm
Impact:		≥ 10 impacts	≥ 10 impacts
Temperature range	during installation:	0° C to + 50° C	0° C to + 50° C
	in operation:	-20° C to + 60° C	-20° C to + 60° C

## STANDARDS

Wire colour	white/blue white/orange white/green white/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 50267-2-1/-2-2, VDE 0482-267-2-1/-2-2, 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 802.3at
EMC	shielded
Cat./Class	Cat 7 / Class F - limit values as specified by IEC 61156-6 and EN 50288-4-2 guaranteed

## VERSIONS

Article No.	Product	Dimension n x n x n mm (AWG)	Sheath	Sheath Ø [mm]	Weight [kg/km]	Cu rate [kg/km]	Fire load [kWh/m]	Fire load [MJ/m]	PU
177388	CU 7002 4P	4 x 2 x 0.57 (AWG23)	FRNC/LS0H	7.4	60	31.1	0.16	0.57	1000 m drum
177398	CU 7002 2x4P F8	2 x (4 x 2 x 0.57 (AWG23))	FRNC/LS0H	7.4 x 15.6	120	62.2	0.32	1.14	500 m drum