



- 1 Inner conductor:** AWG23 / 0.57 mm Ø Bare copper wire
- 2 PE insulated conductor:** 1.4 mm Ø
- 3 Screen (pair):** Alu PETP foil
- 4 Overall screen:** Tinned braided copper
- 5 Outer sheath:** PUR orange RAL 2003



DESCRIPTION

Electrically and mechanically superior quality Cat.7 data cable with PUR sheath - exceeds the requirements of ISO/IEC 11801, IEC 61156-5, EN 50173-1 and EN 50288-4-1. Compatible with Datwyler IP67 connecting hardware. 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 - designed for use in indoor and outdoor industrial areas. Oil resistant. 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. Applicable for Power over Ethernet (PoE) / PoE+.

ELECTRICAL CHARACTERISTICS

Category				5e	6	6A	7
Frequency [MHz]	1	4	10	100	250	500	600
Attenuation [dB/100m]	1.9	3.6	5.6	17.9	28	41	46
NEXT [dB]	100	100	100	100	100	92	90
PS NEXT [dB]	97	97	97	97	97	89	87
ACR-N [dB]	98	96	94	82	72	58	44
PS-ACR-N [dB]	95	93	91	79	69	55	41
ACR-F [dB]	98	98	98	78	69	56	45
PS-ACR-F [dB]	95	95	95	75	66	53	42
Return loss [dB]	26	30	33	33	28	26	25

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 %

SUPPORTED APPLICATIONS

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

MECHANICAL PROPERTIES

Bending radius	during draw-in:	≥ 60 mm
	permanently installed:	≥ 30 mm
Tensile strength:		≤ 110 N
Crush resistance:		≥ 1000 N/10 cm
Impact:		≥ 10 impacts
Temperature range	during installation:	0° C to + 50° C
	in operation:	-30° C to + 60° C

STANDARDS

Reaction to fire (Euroclasses)	EN 13501-6:Eca
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
Oil resistance	EN 60811-2-1 (IEC 60811-404)
PoE	IEEE 802.3at
EMC	shielded
Segregation class	d
Cat./Class	Cat 7 / Class F - limit values as specified by IEC 61156-5 and EN 50288-4-1 guaranteed

VERSIONS

Article No.	DoP	Product	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
18768900EK		CU 7002 4P	4 x 2 x 0.57 (AWG23)	PUR	orange	7.7	57.4	31.1	0.70 MJ/m	0.19	1000 m drum