

# CU 7080 4P SHF1

Data cable, S/FTP, Category 7, AWG23, Euroclass Dca

1000 MHz



- 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 SHF1



## Description

Electrically and mechanically superior 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.

Oil resistant, fire retardant and halogen free sheath.

Certified by Det Norske Veritas.

## Application

Data cable for structured premises cabling - designed for use in industrial areas, particularly for higher requirements in offshore and marine applications.

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+ / 4PPoE up to 100W.

Oil resistant, flame retardant and zero halogen outer sheath.

## Construction

Outer sheath material	FRNC/LSZH SHF1
Outer sheath colour	grey

## General properties

Installation temperature	0 °C - +50 °C
Operating temperature	-20 °C - +60 °C
Wire colour	white/blue, white/orange, white/green, white/brown, according to IEC 60189 and IEC 60708
Imprint	DATWYLER CU 7080 4P AWG23 S/FTP CAT 7 IEC SHF1 NVP81% - DNV-CP-0403 - TAE0000449 - Dca-s1a,d2,a1 MADE IN SWITZERLAND <Lot-number> <length marking> M
Field of application	Off-Shore / Shipbuilding

## Electrical properties

Category	Cat.7
Gbit/s	Up to 10 Gbit/s
Loop resistance at 20 °C	140 Ω/km
Operating capacity	42 pF/m
Impedance at 100 MHz, ±5Ω	100 Ω
NVP %	81
Delay skew	12 ns/100 m
Shielding	shielded
Near end unbalance attenuation LCL at 1-600 MHz	40 dB
Transfer impedance 1/10/30 MHz	< 6/6/10 mΩ/m
Coupling attenuation	85 dB
Segregation class	d

Frequency [MHz]	Category	Attenuation [dB]	NEXT [dB]	PS-NEXT [dB]	ACR-N [dB]	PS-ACR-N [dB]	ACR-F [dB]	Return Loss [dB]
1		1.9	100	97	98	95	98	26
4		3.6	100	97	96	93	98	30
10		5.6	100	97	94	91	98	33
100	5e	17.9	100	97	82	79	78	33
250	6	28	100	97	72	69	69	28
500	6 <sub>A</sub>	41	92	89	58	55	56	26
600	7	46	90	87	44	41	45	25
800		52	84	81	32	29	39	23
862		54	83	80	29	26	37	22
1,000		57	80	77	23	20	33	20

The performance data given are typical measured values.

## Mechanical properties

Solid / Flex	Solid wire
AWG	23
Minimum bending radius (permanently installed)	30 mm
Minimum bending radius (during installation)	60 mm
Tensile strength (2x4P)	220 N
Tensile strength (4P)	110 N

## Standards

Reaction to fire	EN 13501-6
Euroclass	D <sub>ca</sub>
Smoke density	AREI-RGIE Art.104-SD, EN 61034-1/-2, IEC 61034-1/-2, VDE 0482-1034-1/-2
Zero halogen no corrosive gases	AREI-RGIE Art.104-SA, EN 60754-1/-2, IEC 60754-1/-2, VDE 0482-754-1/-2
Flame propagation	AREI-RGIE Art.104-F1, EN 60332-1-2, IEC 60332-1-2, VDE 0482-332-1-2
Flame spread	AREI-RGIE Art.104-F2, EN 60332-3-24, IEC 60332-3-24
UV resistance	EN 50289-4-17-A [720h]
Cables standard	ISO/IEC 61156-5, EN 50288-4-1
Cat./Class	Cat.7 / Class F
DNV standard	DNV-CP-0403
Oil resistance	IEC 60811-404, EN 60811-2-1
PoE	IEEE 802.3bt Type 4 (100W)

## Versions

Material number	Product	Reaction to fire	Dimensions n x p x [mm (AWG)]	Outer sheath dimensions [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Packing unit	GTIN / EAN
19439101DK	CU 7080 4P SHF1	Dca-s1a,d2,a1	4 x 2 x 0.57 (AWG23)	7.6	31.1	60.4	0.183	1000 m drum	40393910022315

Subject to technical modification

As of 2025-10-30 11:20:04