

# CU 6502 4P SHF1

Data cable, U/FTP, Category 6<sub>A</sub>, AWG23, Euroclass Dca



- 1 Inner conductor: AWG23 Bare copper wire
- 2 PE insulated conductor: 1.3 mm Ø
- 3 Screen (pair): Alu PETP foil
- 4 Drain wire: Tinned copper wire
- 5 Outer sheath: FRNC/LS0H SHF1



## Description

Electrically and mechanically improved quality Cat.6A data cable - fulfils the requirements of ISO/IEC 11801, IEC 61156-5, EN 50173-1 and prEN 50288-10-1.

Good shielding effect due to individually screened pairs.

Oil resistant, fire retardant and halogen free sheath.

Compatible with all current connecting hardware in accordance with EN 50173 and ISO/IEC 11801.

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.

Oil resistant, flame retardant and zero halogen outer sheath.

For the transmission of digital and analogue voice, video and data signals.

Suitable for all ICT network applications up to class EA applications (500 MHz) in accordance with EN 50173-1 and ISO/IEC 11801.

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

Supported Applications: 10Base-T, 100Base-T, 1000Base-T, 2.5GBase-T, 5GBase-T, 10GBase-T, Fieldbus

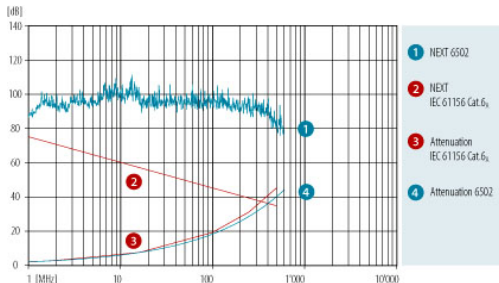
## General Properties

Circuit Integrity	No
Field of application	Off-Shore and Shipbuilding
Inprint	DATWYLER «cable type» «additional text» «batch number» «meter marks»
Wire colour	white - blue/blue, white orange/orange, white green/green, white brown/brown in acc. with IEC 60189 and IEC 60708 (ring marked)
Installation temperature	0 °C - +50 °C
Operating temperature	-20 °C - +60 °C

## Electrical properties

Category	Cat.6 <sub>A</sub>
Coupling attenuation	55 dB
Delay Skew	5 ns/100 m
EMC	shielded
Gbit/s	Up to 10 Gbit/s
Impedance at 100 MHz, ±5Ω	100 Ω

Loop resistance at 20°C	150 Ω/km
Near end unbalance attenuation LCL at 1-600 MHz	40 dB
NVP %	79
operating capacity	42 pF/m
Segregation class	c
Transfer impedance 1/10/30 MHz	< 50/100/200 mΩ/m



Frequency [MHz]	Category	Attenuation [dB]	NEXT [dB]	PS-NEXT [dB]	ACR-N [dB]	PS-ACR-N [dB]	ACR-F [dB]	Return Loss [dB]
1		2.1	93	90	91	88	96	26
4		3.8	93	90	89	86	96	28
10		5.9	93	90	87	84	96	30
100	5e	19	93	90	73	70	74	30
250	6	30	83	80	53	50	56	27
500	6 <sub>A</sub>	43	75	72	32	29	33	21

## Mechanical properties

Solid / Flex	Solid wire
AWG	23
Minimal crush resistance / 10cm	1,000 N
Minimum bending radius during installation	56 mm
Minimum bending radius permanently installed	28 mm
Minimum number of impacts	10
Tensile strength (2x4P)	190 N
Tensile strength (4P)	95 N

## Standards

Cat./Class	Cat.6 <sub>A</sub> / Class E <sub>A</sub>
DNV standard	DNVGL-CP-0403
PoE	IEEE 802.3bt Type 4 (100W)
Reaction to fire (Euroclasses)	EN 13501-6: D <sub>ca</sub>
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
Smoke Density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2, AREI-RGIE Art.104-SD

## Versions

Material number	Product	Reaction To Fire	Dimensions n x p x [mm (AWG)]	Outer sheath colour	Outer sheath material	Outer sheath diameter [mm]	CU rate [kg/km]	Weight [kg/km]	Fire load [kWh/m]	Packing unit
19439202DK	CU 6502 4P U/FTP CAT <sub>6A</sub> SHF1 GR	Dca-s2,d1,a1	4 x 2 x 0.55 (AWG23)	grey	FRNC/LSZH SHF1	7.2	20.0	53	0.178	1000 m drum