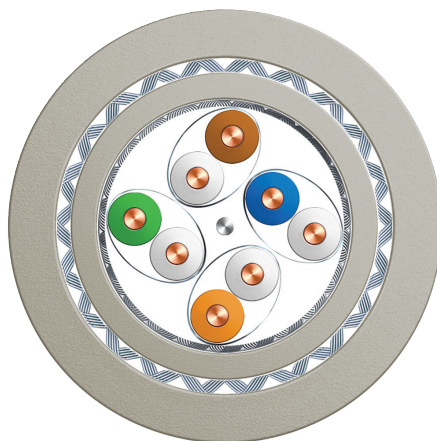


Armoured (GSWB) Cat.6a 23/1awg S/FTP Horizontal Cable



Application

DNV-GL Approved Cat6a for Offshore installations, Maritime Environment, Data-Centers/SANs, Indoor/Outdoor use, fixed installations, Compliance with low voltage safety earth-connection and grounding regulations, Optimized for IEEE 802.3bt 4PPoE, High data rates, Ships, High speed & Light craft. Certificate No: TAE0000456.

Cable Design

Conductor AWG	Solid Annealed Bare Copper wire 23/1 AWG
Insulation Diameter	Cellular PO Ø 1,38 mm nom.
Formation Pair Identification	2 cores twisted to a pair, 4 pairs total (4x2x23/1awg) Per TIA/EIA 568-B
Individual shield	Aluminium/polyester foil, 100% coverage
Drain Wire	Solid Annealed Tinned Copper 0,41 mm
Overall Shield	Annealed Tinned Copper Wire Braid, 55% nom. coverage

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Inner Jacket	FR-LSZH SHF-1
Colour	Grey
Diameter	Ø 7,90 ± 0,20 mm nom.
Armour	Galvanised Steel Wire Braid (GSWB)
Outer Jacket	FR-LSZH SHF-1 or XL-HFFR SHF2 or XL-HFFR MUD-Resistant
Colour	Grey or Black
Diameter	Ø 11,50 mm ± 10%

Performance

Frequency Range	1 - 500	MHz
Impedance	100	Ohm
Transfer Impedance	Grade 1	
Coupling Attenuation	Type I	
DC Resistance	73	Ohm/km nom.
Max. Resistance Unbalance	2	%
Capacitance Unbalance	1,2	pF/m max.
Velocity of Propagation	78	% nom.
Propagation Delay Skew	25	ns/100m max.
Dielectric Strength	700	V/minute
Dielectric Strength to Shield	700	V/minute
Min. Insulation Resistance	5	GOhm • km
Cold Bend	per UL 44, per CSA C22.2 No. 38-95	
Min. Bend Radius	150	mm
Max. Operating Temperature	+85	°C
Min. Operating Temperature	-40	°C
UV resistance	YES	
MUD Resistance	Optional	
Rodent Resistance	YES	

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Electrical Properties *Cat. 6A Screened-pair Horizontal Cables **

Fre- quency (MHz)	Attenuation (dB/100m) 20°C		PS NEXT Loss (dB)		NEXT Loss (dB)		RL (dB)		PS ANEXT (dB)		PS ELFEXT (dB)		ELFEXT (dB)	
	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A
1	2,0	2,0	95,0	72,3	98,0	75,3	22,0	20	70,0	67	85,0	65	88,0	68
4	3,7	3,8	95,0	63,3	98,0	66,3	25,0	23	70,0	67	73,0	53	76,0	56
10	5,6	5,9	95,0	57,3	98,0	60,3	28,0	25	70,0	67	65,0	45	68,0	48
20	7,9	8,4	90,0	52,8	93,0	55,8	28,0	25	70,0	67	59,0	39	62,0	42
30	9,7	10,3	85,0	50,1	88,0	53,1	27,0	23,8	70,0	67	55,4	35,4	58,4	38,4
100	18,0	19,1	80,0	42,3	83,0	45,3	24,0	21,1	67,0	62,5	45,0	25	48,0	28
150	22,4	23,6	78,0	39,7	81,0	42,7	22,0	18,8	66,0	59,8	41,5	21,5	44,5	24,5
200	26,0	27,6	78,0	37,8	81,0	40,8	21,0	18	65,0	58	49,0	19	52,0	22
250	29,4	31,0	75,0	36,3	78,0	39,3	20,0	17,3	63,0	56,5	37,0	17	40,0	20
300	32,5	34,3	75,0	35,1	78,0	38,1	19,0	17,3	62,0	55,3	35,5	15,5	38,5	18,5
400	38,0	40,0	70,0	33,3	73,0	36,3	19,0	17,3	61,0	53,4	33,0	13	36,0	16
500	43,0	45,2	70,0	31,8	73,0	34,8	19,0	17,3	59,0	52	31,0	11	34,0	14

* Supplied cables meet the minimum Cat. 6A transmission requirements as per IEC 61156-5 Ed. 2

Standards

Applicable Standards

DNV-GL certified (TAE0000456), IEC 60092-359, IEC 60092-351, IEC 60092-350, IEC 60811-2-1, IEC 61156-5, IEEE 802.3at (PoE+), IEEE 802.3an 10GBASE-T 10 Gigabit Ethernet, IEEE 802.3af (PoE), IEEE 802.3bt (4PPoE), ISO/IEC 11801-1, RoHS 3 2015/863/EU , (NEK 606 for MUD Resistant option)

Flammability Rating

IEC 60332-1, IEC 60332-3-22, IEC 60754-1/2, IEC 61034-1/2

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Horizontal Cable*

Specification

Part Number	Construction	Shield Type	Armour	Outer Jacket	Colour
AML6A-SFBS23-WBZF1	4x2x23/1 awg	S/FTP	GSWB	SHF1	Grey
AML6A-SFBS23-WBZF2	4x2x23/1 awg	S/FTP	GSWB	SHF2	Grey
AML6A-SFBS23-WBZFM	4x2x23/1 awg	S/FTP	GSWB	MUD Resistant	Black