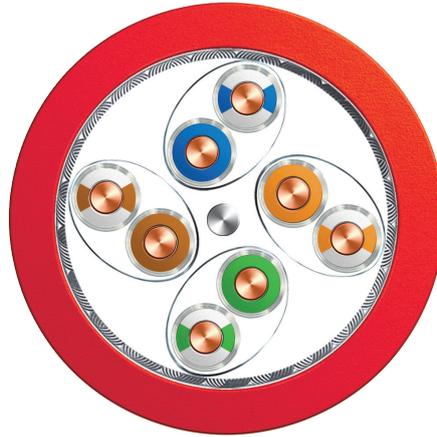


Cat.7 4x2x23/1 AWG S/FTP Fire Resistant
Horizontal Cable



Application

Offshore installations, Maritime Environment, Optimized for IEEE 802.3at PoE+, High bandwidth digital applications with low BER, Ships, High speed & Light craft. The cable design and structure comply with the circuit integrity performance during a fire of the relevant requirements of IEC 60331-23 and allows data transmission during the fire. DNVGL approved (Certificate No: TAE00002A1.)

Cable Design

Conductor	Solid annealed bare copper wire (23awg)
Insulation	PO
Fire Barrier	FFCi™ Fire resistant tape wrapped
Diameter	Ø 1.20 mm nom.
Screened Pair	2 cores twisted to a pair + Aluminium/polyester foil,
100% coverage	
Formation	4 screened pairs (4x2x23/1awg)
Pair Identification	Per TIA/EIA 598-C

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Braid	Tinned copper wire braid
Coverage	55% nom.
Drain Wire	0,41 mm solid tinned copper wire
Outer Jacket	FR-LSZH SHF-1 or XL-HFFR SHF2, Red
Diameter	Ø 9.10 mm nom.
Weight	85 kg/km

Performance

Frequency Range	1-600	MHz
Impedance	100	Ohm
Transfer Impedance	Grade 1	
Coupling Attenuation	Type I	
DC Resistance	73	Ohm/km @ 20 °C
Max. Resistance Unbalance	2	%
Max. Screen Resistance	5	Ohm/km @ 20 °C (cable level) typical value
Capacitance	42	pF/m
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
Tensile Strength - Short Term	130	N max.
Min. Bend Radius	80	mm
Max. Operating Temperature	+85	°C
Min. Operating Temperature	-40	°C
UV Resistance	Yes	

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Transmission Properties

Frequency (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.7	Typ.	Cat.7	Typ.	Cat.7	Typ.	Cat.7	Typ.	Cat.7	Typ.	Cat.7	Typ.	Cat.7
1	2,0	2,0	105,0	75,0	108,0	78,0	22,0	20,0	68,0	N/A	95,0	75,0	98,0	78,0
4	3,6	3,7	98,0	75,0	101,0	78,0	25,0	23,0	68,0	N/A	90,0	75,0	93,0	78,0
10	5,6	5,8	95,0	75,0	98,0	78,0	28,0	25,0	68,0	N/A	86,0	71,0	89,0	74,0
20	7,9	8,3	90,0	75,0	93,0	78,0	28,0	25,0	68,0	N/A	80,0	65,0	83,0	68,0
30	9,7	10,2	85,0	75,0	88,0	78,0	27,0	23,8	68,0	N/A	76,0	61,5	79,0	64,5
100	18,0	19,0	80,0	69,4	83,0	72,4	24,0	21,1	68,0	N/A	66,0	51,0	69,0	54,0
150	22,4	23,6	78,0	66,7	81,0	69,7	22,0	18,8	65,0	N/A	63,0	47,5	66,0	50,5
200	26,0	27,5	78,0	65,0	81,0	68,0	21,0	18,0	65,0	N/A	60,0	45,0	63,0	48,0
250	29,4	31,0	75,0	63,4	78,0	66,4	20,0	17,3	62,0	N/A	58,0	43,0	61,0	46,0
300	32,5	34,2	75,0	62,2	78,0	65,2	19,0	17,3	62,0	N/A	52,0	41,5	55,0	44,5
400	38,0	40,0	70,0	60,4	73,0	63,4	19,0	17,3	62,0	N/A	49,0	38,9	52,0	41,9
500	43,0	45,2	70,0	58,9	73,0	61,9	19,0	17,3	62,0	N/A	47,0	37,0	50,0	40,0
600	47,6	50,1	70,0	57,7	73,0	60,7	19,0	17,3	62,0	N/A	45,0	35,4	48,0	38,4

Standards

Applicable Standards

DNV-GL certified, IEC 60092-359, IEC 60092-350, IEC 60811-2-1, IEC 61156-5, IEEE 802.3at PoE+, ISO/IEC 11801, TIA/EIA-568, ASTM G 154, RoHS-2 2011/65/EU

Flammability Rating

IEC 60331-23, IEC 60332-1, IEC 60332-3, IEC 60754-1/2, IEC 61034-1/2, UL 1581 VW-1

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Specification

Part Number	Construction	Shield Type	Outer Jacket
AMS7-SF23-UAF1	4x2x23/1 awg	S/FTP	SHF1
AMS7-SF23-UAF2	4x2x23/1 awg	S/FTP	SHF2