



# Armada<sup>®</sup> Cat.6A FFCi 4x2x23/1AWG SU/FTP

## DataGuard<sup>®</sup> Armoured SHF-1



### Application

DataGuard<sup>®</sup> armoured (GSWB) Cat6A for offshore installations, Maritime Environment, Optimized for IEEE 802.3at PoE+, High bandwidth digital applications with low BER. 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.

### Cable Design

Conductor	Solid annealed bare copper wire (23awg)
Insulation	PO
Fire Barrier	FFCi <sup>™</sup> 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
Braid	Tinned copper wire braid, 55% nom. Coverage
Drain Wire	0,41mm solid tinned copper wire
Inner Jacket	Low Smoke Zero Halogen FireFighter <sup>®</sup> SHF-1, Red
Diameter	Ø 8.20 mm nom.
Armour	DataGuard <sup>®</sup> Galvanised Steel Wire Braid (GSWB)
Outer Jacket	Low Smoke Zero Halogen FireFighter <sup>®</sup> SHF-1
Diameter	Ø 12.10 mm nom.
Weight	255 kg/km





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### Specification

Part Number	Type
AMS6A-SF23-DGF1	Cat.6A 4x2xAWG23/1 SU/FTP Fire Resistant DataGuard (GSWB) SHF-1 with RED outer jacket.
AMS6A-SF23-DGF1-01	Cat.6A 4x2xAWG23/1 SU/FTP Fire Resistant DataGuard (GSWB) SHF-1 with BLACK outer jacket.

### Standards

Applicable Standards	IEC 60092-359, IEC 60092-350, IEC 61156-5, ISO/IEC 11801, TIA/EIA-568, ASTM G154, RoHS-2 2011/65/EU
Flamability Rating	IEC 60331-23, IEC 60332-1, IEC 60332-3, IEC 60754-1/2, IEC 61034-1/2, UL 1581 VW-1

### Electrical & Mechanical Performance

Frequency Range	1-500	MHz
Impedance	100	Ohm
Transfer Impedance	Grade 1	
Coupling Attenuation	Type I	
Max. DC Resistance	78	Ohm/km @ 20°C
Max. Resistance Unbalance	2	%
Capacitance	47	pF/m
Capacitance Unbalance	1,6	pF/m max.
Velocity of Propagation	65	% nom.
Dielectric Strength	700	V/minute
Dielectric Strength to Shield	700	V/minute
Min. Insulation Resistance	4	GOhm•km
Max. Operating Temperature	+65	°C
Min. Operating Temperature	-30	°C
UV resistance	Yes	
Rodent resistant	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)	
	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A	Typ.	Cat.6A
1	2,0	2,0	95	72,3	98	75,3	22	20	70	67	85	65
4	3,7	3,8	95	63,3	98	66,3	25	23	70	67	73	53
10	5,6	5,9	95	57,3	98	60,3	28	25	70	67	65	45
20	7,9	8,4	90	52,8	93	55,8	28	25	70	67	59	39
30	9,7	10,3	85	50,1	88	53,1	27	23,8	70	67	55,4	35,4
100	18,0	19,1	80	42,3	83	45,3	24	21,1	67	62,5	45	25
150	22,4	23,6	78	39,7	81	42,7	22	18,8	66	59,8	41,5	21,5
200	26,0	27,6	78	37,8	81	40,8	21	18,0	65	58	49	19
250	29,4	31,0	75	36,3	78	39,3	20	17,3	63	56,5	37	17
300	32,5	34,3	75	35,1	78	38,1	19	17,3	62	55,3	35,5	15,5
400	38,0	40,0	70	33,3	73	36,3	19	17,3	61	53,4	33	13
500	43,0	45,2	70	31,8	73	34,8	19	17,3	59	52	31	11

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

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