

Cat.6_A 4x2x24/1 AWG S/FTP LSZH-SHF1

Part Number: **9MG05** **DNV APPROVED**

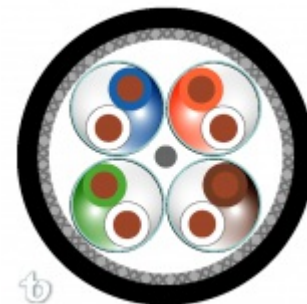
Applications: Offshore installations, Maritime Environment, High data rates, Indoor/Outdoor use, fixed installations, Ships, High speed & Light craft

General Construction: 4 individually foil-shielded twisted pairs with solid conductors, cabled together, overall braid-shield and jacketed.

Outer Jacket Material: FR-LSZH

Outer Diameter: 7.2 mm nom.

Weight: 58 kg/km



Design & Materials

Conductor Material:	Annealed Bare Copper
Conductor Size:	24 AWG
Conductor Construction:	Solid
Insulation Material:	Cellular PO
Insulation O.D.:	1.04 mm nom.
Conductor unit identification:	Solid Color
Color Code:	Per TIA/EIA 568-B
Ind. Shield Material:	Aluminum/Polyester Foil
Ind. Shield Design:	Helically applied aluminum foil, 100% coverage
Conductor unit lay-up:	Pairs
Overall Shield Design:	Braid
Overall Braid Shield:	Yes
Overall Braid Material:	Annealed Tinned Copper
Braid Coverage:	55 % nom.
Overall Drain-wire Material:	Annealed Tinned Copper
Total number of conductors:	8
Outer Jacket Color:	Grey
Marking:	Per request, Teldor Standard

Standards

Applicable Standards:	DNV-GL certified, ABS certified, LLOYDS certified, RMRS certified, IEC 60092-360, IEC 60092-359, IEC 60092-350, IEC 61156-6, IEC 61156, IEEE 802.3at (PoE+), ISO/IEC 11801-1, RoHS 3 2015/863/EU
Flammability Rating:	IEC 60332-1, IEC 60332-3-22, IEC 60332-3 , IEC 60754-1/2, IEC 61034-1/2, UL 1581 VW-1

Electrical Properties:

Cat. 6_A Screened-pair Work Area Cables*

Freq. MHz	Attenuation dB/100m 20°C		PS NEXT Loss dB		NEXT Loss dB		RL dB		PS ANEXT dB		PS ELFEXT dB		ELFEXT dB	
	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A	Typical Value	Cat. 6 _A
1	3.0	3.1	95.0	72.3	98.0	75.3	22.0	20.0	70.0	67.0	85.0	65.0	88.0	68.0
4	5.6	5.8	95.0	63.3	98.0	66.3	25.0	23.0	70.0	67.0	73.0	53.0	76.0	56.0
10	8.7	9.0	95.0	57.3	98.0	60.3	28.0	25.0	70.0	67.0	65.0	45.0	68.0	48.0
20	12.4	12.8	90.0	52.8	93.0	55.8	28.0	25.0	70.0	67.0	59.0	39.0	62.0	42.0
30	15.3	15.8	85.0	50.1	88.0	53.1	27.0	23.8	70.0	67.0	55.4	35.4	58.4	38.4
100	29.0	29.9	80.0	42.3	83.0	45.3	24.0	21.1	67.0	62.5	45.0	25.0	48.0	28.0
150	36.2	37.4	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	42.5	43.8	78.0	37.8	81.0	40.8	21.0	18.0	65.0	58.0	49.0	19.0	52.0	22.0
250	48.2	49.7	75.0	36.3	78.0	39.3	20.0	17.3	63.0	56.5	37.0	17.0	40.0	20.0
300	53.4	55.1	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	63.1	65.1	70.0	33.3	73.0	36.3	19.0	17.3	61.0	53.4	33.0	13.0	36.0	16.0
500	71.9	74.0	70.0	31.8	73.0	34.8	19.0	17.3	59.0	52.0	31.0	11.0	34.0	14.0

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

Performance

Frequency Range:	1 - 500 MHz
Impedance:	100 Ω
Transfer Impedance:	Grade 1
Coupling Attenuation:	Type I
DC Resistance:	90 Ω/km nom.
Max. DC Resistance :	120 Ω/km@20°C
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 GΩ•km
Min. Bend Radius:	6xD mm
Max. Operating Temperature:	+ 85 °C
Min. Operating Temperature:	- 40 °C
UV Resistance:	Yes

Prepared By	Revised By	Version Num	Modified on
Ofer Solter	Ofer Solter	1.6	22-01-2020

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