



Steel Braid Protected Low Smoke Zero Halogen Cat6a F/FTP Data Cable for Marine Applications

Document Information

Drawing Number	CSWL190930E-V1
Date	30/09/2019
Design	ADMIRAL CAT6A F/FTP GSWB SHF1

Cable Construction

23 AWG Solid Plain Annealed Copper Conductor
(IEC 60228 Class 1)

Extruded FS-PE Insulation
(Foam Skin Polyethylene)

2 Cores Twisted Together to form a Pair

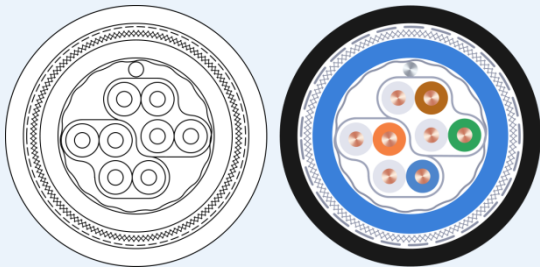
4 Pairs laid up and Screened
(Z-Configuration Aluminium/Polyester Tapes in contact with communal Solid Tinned Annealed Copper Drain Wire)

Extruded LSZH Inner Sheath
(Low Smoke Zero Halogen to BS 7655 LTS1-4, IEC 60092 SHF1, EN 50363 TM7)

Galvanised Steel Wire Braid
(In accordance with BS EN 10257-1)

Polyester (Melinex®/Mylar®) Separation Tape
Prevents bonding of adjacent materials to assist installation

Extruded LSZH Outer Sheath
(Low Smoke Zero Halogen to BS 7655 LTS1-4, IEC 60092 SHF1, EN 50363 TM7)



Colours & Identification

Pair Identification
1 x White/Orange Pair
1 x White/Blue Pair
1 x White/Brown Pair
1 x White/Green Pair

Inner Sheath Colour
Blue

Outer Sheath Colour
Black

Properties & Standards

Standards

EN 50173-1, EN 50288-5-1, ISO/IEC 11801, IEC 61156-5, TIA/EIA-568-C.2

Electrical

Loop Resistance	≤ 176 Ω/km
Resistance Unbalance	≤ 2%
Insulation Resistance (@500v)	≥ 2000 MΩ/m
Mutual Capacitance (@800Hz)	43 nF/km
Capacitance Unbalance (Pair/Ground)	≤ 1500 pF/km
Characteristic Impedance (1-100 MHz)	100 Ω (±5)
Velocity of propagation	ca 79%
Propagation delay	≤ 427 ns/100m
Delay skew	≤ 12 ns/100m
Test Voltage (DC, 1min, cor/cor, cor/scr)	1000 V
Transfer Impedance @1 MHz	≤ 20 mΩ /m
Transfer Impedance @10 MHz	≤ 50 mΩ /m
Transfer Impedance @30 MHz	≤ 100 mΩ /m
Coupling attenuation	≥ 55dB

Temperature

Operating Temperature Range -20°C to +70°C

Physical

Minimum Bend Radius 5 x Overall Diameter

Fire Performance

Flame Retardance	IEC 60332-1-2
Flame Retardance	IEC 60332-3-24 (Cat C)
Halogen Gas Content	IEC 60754-1
Gas Acidity	IEC 60754-2
Smoke Emission	IEC 61034

Properties and Standards may be indicative prior to manufacture and testing.

Nominal Dimensions

Inner Sheath Diameter	7.10	mm
Braid Armour Wire Size	0.20	mm
Outer Sheath Diameter	10.75	mm

Dimensions are theoretical nominals calculated prior to manufacture.