



Caledonian

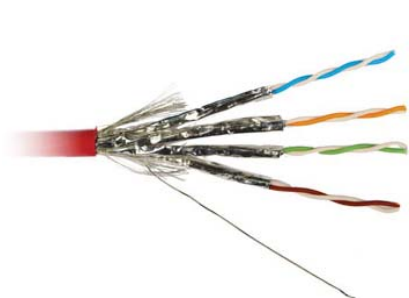
FIREFLIX Fire Resistant Instrumentation & Data Cables

www.caledonian-cables.net www.addison-cables.com

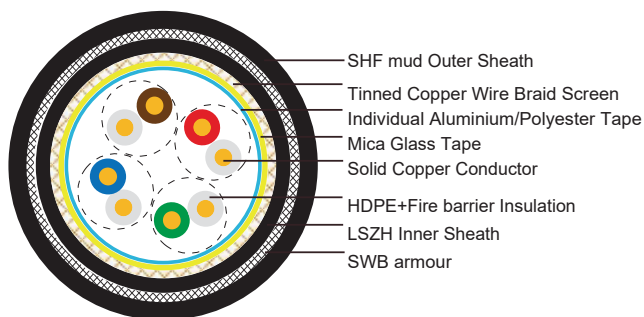
Fire Resistant CAT6A SWB Armoured Data Cables

Fire Resisting S/FTP Cat6A Cable to IEC 60331-23

part no. FFX-CAT6S/FTP4P23FR SWB



S/FTP CAT6A



S/FTP CAT6A SWB armored

APPLICATION

Cat6 Cable is a cable standard for Gigabit Ethernet and other network protocol, suitable for 10BaseT, 100BaseTx & 1000BaseT (Gigabit Ethernet) application. In addition, these cables can be offered with copper wire braid armoured & flame retardant outer sheath, providing additional mechanical protection still maintaining the flexibility of the cable.

STANDARDS

Basic design adapted to EN 50173

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-23; BS 6387 CWZ (Optional)
Flame Retardance (Single vertical wire or cable test)	IEC 60332-1-2; EN 60332-1-2
Reduced Fire Propagation (Vertically-mounted bundled wires & cables test)	IEC 60332-3-24; EN 60332-3-24
Halogen Free	IEC 60754-1; EN 50267-2-1
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2
Minimum Smoke Emission	IEC 61034-2; EN 61034-2

CABLE CONSTRUCTION

Conductors: 23AWG solid bare copper.

Insulation: HDPE+fire barrier insulation.

Twinning: Two coloured insulated conductors twisted together to form a pair.

Individual Shield: Every pair is separately shielded with polyester aluminum foil, which covers > 100% of twisted pair, tinned copper drain wire is outside the Aluminum side contact with the braiding.

Fire Barrier tape: Mica glass tape applied over each pair.

Overall Shield: Tinned copper braiding, min. 60% coverage.

Inner Sheath: Thermoplastic LSZH compound, coloured black.

Armouring: Steel wire braiding.

Outer Sheath: SHF mud. Halogen-free flame retardant thermosetting LSZH compound type LTS3 as per BS 7655-6.1, which is UV resistance, oil resistance, mud resistance.

PHYSICAL AND THERMAL PROPERTIES

Temperature range: -30°C - +75°C

Minimum bending radius during installation (mobile state): 8 x Overall Diameter

Minimum bending radius during operation (fixed state): 4 x Overall Diameter

ELECTRICAL PROPERTIES

AWG		23
Nominal Conductor Diameter	mm	0.58
Maximum DC Resistance@20°C	Ω/100m	9.38
Maximum DCR Unbalance	%	3
Maximum Mutual Capacitance	pF/m	5.8
Maximum Capacitance Unbalance	pF/100m	30
Characteristic Impedance@1-100MHz	Ω	100±15
Maximum Propagation Delay Skew	ns/100m	18

TRANSMISSION PROPERTIES

FREQ MHz	Attenuation dB/100m	NEXT dB	PSNEXT dB	ELFEXT dB/100m	PSELFEXT dB/100m	RL dB
0.772	1.8	76.0	74.0	70.0	67.0	—
1	2.0	74.3	72.3	67.8	64.8	20.0
4	3.8	65.3	63.3	55.7	52.7	23.0
8	5.3	60.8	58.8	49.7	46.7	24.5
10	6.0	59.3	57.3	47.8	44.8	25.0
16	7.6	56.3	54.3	43.7	40.7	25.0
20	8.5	54.8	52.8	41.7	38.7	25.0
25	9.5	53.3	51.3	39.8	36.8	24.3
31.25	10.7	51.9	49.9	37.9	34.9	23.6
62.5	15.4	47.4	45.4	31.8	28.8	21.5
100	19.8	44.3	42.3	27.8	24.8	20.1
155	25.2	41.5	39.5	23.9	20.9	18.8
200	29.0	39.8	37.8	21.7	18.7	18.0
250	32.8	38.3	36.3	19.8	16.8	17.3



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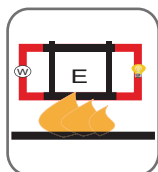
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CONSTRUCTION PARAMETERS

Cable Code	Construction No. of Elements×No. of Cores in Element×Conductor Diameter	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Nominal Outer Sheath Thickness	Approx. Overall Diameter	Nominal Weight
	mm	mm	mm	mm	mm	kg/km
FFX-CAT6S/FTP4P23FR SWB	4×2×0.58	0.45	0.9	1.1	20.0	530



Standard



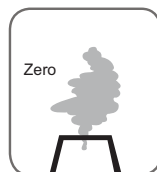
Circuit Integrity
IEC 60331-23/BS 6387(Optional)



Flame Retardancy
BS EN 60332-1-2



Reduced Fire Propagation
EN 60332-3-24



Halogen Free
IEC 60754-1



Low Corrosivity
IEC 60754-2



Low Smoke Emission
IEC 61034-2