



# Caledonian

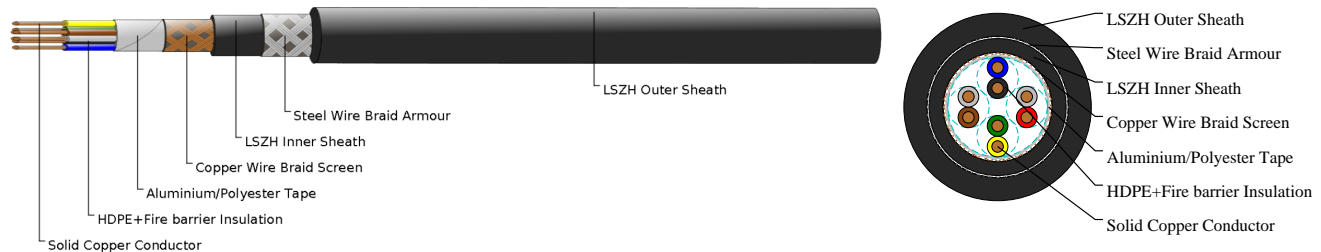
FIREFLIX Fire Resistant Instrumentation & Data Cables

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## Fire Resistant CAT5E CWB/SWB/SWA Armoured Data Cables

FFX-CAT5E SF/UTP 4P24FR SWB



## APPLICATIONS

Cat5E is a cable standard for Gigabit Ethernet and other network protocol, suitable for basic voice and data installations up to 100 MHz. In addition, these cables can be offered with copper wire braid armoured & flame retardant outer sheath, providing additional mechanically protection still maintaining the flexibility of the cable.

## STANDARDS

ISO/IEC 11801

EN 50173

ANSI/TIA/EIA 568

## FIRE PERFORMANCE

|   |                                      |
|---|--------------------------------------|
| Flame Retardance (Single Vertical Wire 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              |
| Circuit Integrity   | IEC 60331-23; BS 6387 CWZ (Optional) |

## CABLE CONSTRUCTION

Conductors: 24AWG solid bare copper.

Insulation: HDPE+Fire barrier.

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

Overall Fire Barrier (optional).

Overall Screen1: Aluminium/polyester tape screen.

Overall Screen2:Copper wire braid screen.

Inner Sheath: Thermoplastic LSZH compound.

Armouring:Steel Wire Braid(SWB).

Outer Sheath: Halogen-free flame retardant thermoplastic LSZH compound type LTS3 as per BS 7655-6.1(Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered).



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Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the PVC compound and the overall cable design. LSPVC can also be provided upon request.

### 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: 24

Nominal Conductor Diameter: 0.53mm

Maximum DC Resistance@20°C: 9.38Ω/100m

Maximum DCR Unbalance: 5%

Maximum Mutual Capacitance: 55.8pF/m

Maximum Capacitance Unbalance: 330pF/100m

Characteristic Impedance@1-100MHz: 100±15Ω

Maximum Propagation Delay Skew: 45ns/100m

### DIMENSION AND PARAMETERS

| Caledonian Cable Code                | No. of Pairs | Conductor Diameter | Nominal Insulation Thickness | Nominal Inner Sheath Thickness | Nominal Outer Sheath Thickness | Approx. Overall Diameter | Cable Weight |
|--------------------------------------|--------------|--------------------|------------------------------|--------------------------------|--------------------------------|--------------------------|--------------|
|                                      |              | mm                 | mm                           | mm                             | mm                             | mm                       | kg/km        |
| FFX-CAT5E<br>SF/UTP<br>4P24FR<br>SWB | 4            | 0.53               | 0.65                         | 0.6                            | 1                              | 11.76                    | 143          |



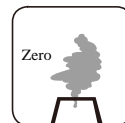
Circuit Integrity  
IEC 60331-23/BS 6387(Optional)



EN 50173



Flame Retardancy  
BS EN 60332-1-2



Zero  
Halogen Free  
IEC 60754-1



Low Corrosivity  
IEC 60754-2



Low Smoke Emission  
EN 61034-2



Reduced Fire Propagation  
EN 60332-3-24