



# Caledonian

FIRETOX LSZH Flame Retardant Instrumentation & Data Cables

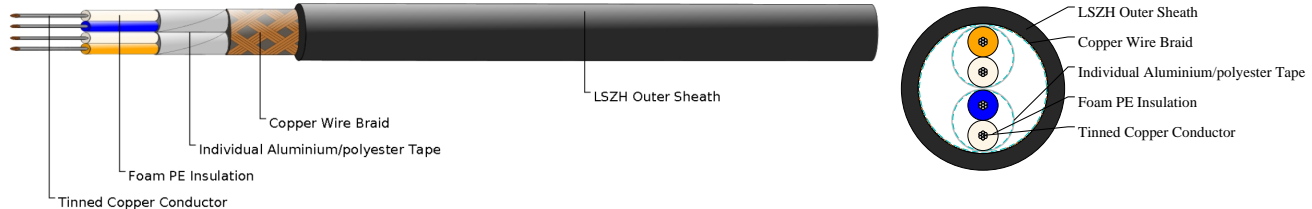
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## LSZH Flame Retardant RS 485 Databus Cables

Multipair RS 485 Individual & Overall Screened Databus Cable

RE-02Y(St)CH PiMF / RE-02YS(St)CH PiMF 2P0.22



## APPLICATIONS

The cables are designed for RS485 data connections where continued functionality is required during a fire situation. This cable combines low capacitance insulation with one of the highest levels of screening to provide high speed, interference free, data transmission where continued functionality is required during a fire situation.

## STANDARDS

Basic design adapted to EIA/TIA 485

## 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       |

## CABLE CONSTRUCTION

Conductors: Tinned copper wire, stranded according to IEC 60228 class 2.

Insulation: Foam PE or foam skin PE.

Cabling Elements: Insulated cores are twisted to form pairs with varying lay length to minimize crosstalk. Two pair cable had four cores laid in quad formation.

Cabling: Pairs are cabled together in concentric layers.

Individual Screen: Individual aluminium/polyester tape.

Overall Screen: Copper wire braid.

Outer Sheath: 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).

Outer Sheath Option: UV resistance, hydrocarbon resistance, oil resistance, anti-rodent and anti-termites properties can be offered as option.

## PHYSICAL AND THERMAL PROPERTIES



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Temperature range during operation (fixed state): -20°C - +90°C

Temperature range during installation (mobile state): -5°C - +60°C

Minimum bending radius: 8 x Overall Diameter

### Electrical Properties

Dielectric test: 1000 V r.m.s. for 5' (core-core)

1000 V r.m.s. for 5' (core-screen)

Impedance: 120 Ω

Capacitance: 45 nF/km conductor to conductor

90 nF/km conductor to shield

### DIMENSION AND PARAMETERS

| No. of Pairs | Nominal Cross-sectional Area | No./Nominal Diameter of Strands | Nominal Insulation Thickness | Nominal Sheath Thickness | Approx. Overall Diameter | Approx. Weight |
|--------------|------------------------------|---------------------------------|------------------------------|--------------------------|--------------------------|----------------|
|              | mm <sup>2</sup>              | no./mm                          | mm                           | mm                       | mm                       | kg/km          |
| 2            | 0.22                         | 7/0.2                           | 0.7                          | 1.1                      | 10.2                     | 110            |



Rated voltage



EIA/TIA 485



Flame Retardancy  
BS/EN/IEC 60332-1-2



Halogen Free  
IEC 60754-1



Low Corrosivity  
IEC 60754-2



Low Smoke Emission  
IEC 61034-2



Reduced Fire Propagation  
EN 60332-3-24