



Caledonian

FIREGUARD Flame Retardant Instrumentation & Data Cables

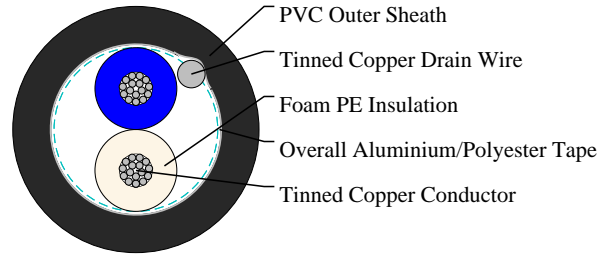
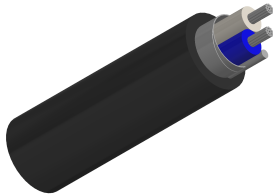
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Flame Retardant RS485 Databus Cables

Multipair RS 485 Overall Screened Databus Cable

RE-02Y(St)Y / RE-02YS(St)Y 1P0.5



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) | BS EN 60332-1-2 |
|--|-----------------|

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.

Overall Screen: Aluminum/polyester tape with tinned copper drain wire.

Outer Sheath: Thermoplastic PVC compound.

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 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



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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 ² | no./mm | mm | mm | mm | kg/km |
| 1 | 0.5 | 16/0.2 | 0.7 | 1.1 | 6.2 | 52 |



Rated voltage



EIA/TIA 485



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