



# Caledonian

FIREGUARD Flame Retardant Instrumentation & Data Cables

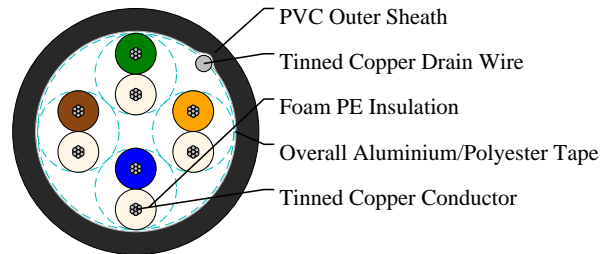
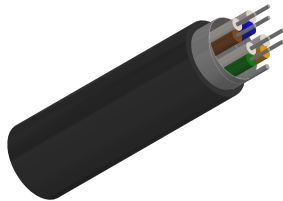
www.caledonian-cables.com

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## Flame Retardant RS485 Databus Cables

Multipair RS 485 Overall Screened Databus Cable

RE-02Y(St)Y / RE-02YS(St)Y 4P0.22



## 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)	BS EN 60332-1-2
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## 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  $\Omega$

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
4	0.22	7/0.2	0.7	1.1	10.3	103



Rated voltage



EIA/TIA 485



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