



# Caledonian

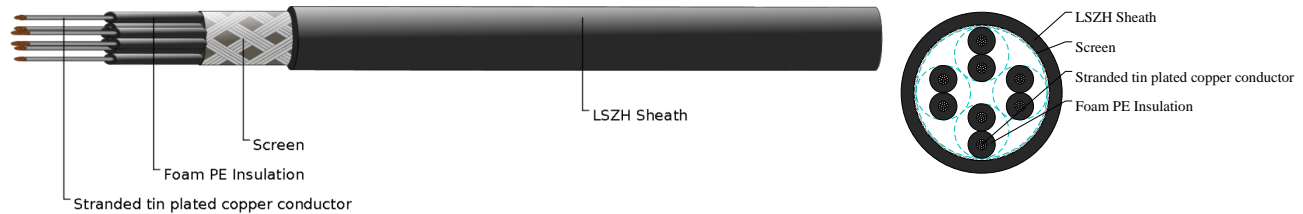
Rolling Stock Cables

www.caledonian-cables.com

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## RS 485 Databus Cables

FRL-MVB-02Y(ST)CH-IO5-xPyS



### APPLICATIONS

120 Ohm data transmission cables

### VOLTAGE RATING

300/500 V

### CABLE CONSTRUCTION

Multipair Databus RS 485 Double Screened Cable

Conductor: Stranded tin plated copper conductor according to IEC 60228 class 5(0.22mm<sup>2</sup>-1mm<sup>2</sup>).

Insulation: Cross linked foam PE or foam skin PE

Cable Element: Twisted pair

Pair Screen: Individual Aluminium tape

Overall Screen: Copper wire braid

Outer Sheath: Cross linked EVA rubber type EM 104 or equivalent, in accordance with EN 50264-1

### MECHANICAL PROPERTIES

Impedance: 120 Ω +/- 15 %

Capacitance@1KHz: 41 nF/km

Min. Insulation Resistance: 5000 MΩ

### CHEMICAL AND ENVIRONMENTAL PROPERTIES

|                        |   |
|------------------------|---|
| EN 60684-2             | No fluorine   |
| EN 50305; EN 60811-2-1 | Resistance to mineral oil & fuel oil, acid & alkali |
| EN 50305               | Resistance to ozone                                 |

### FIRE PERFORMANCE FOR ROLLING STOCK APPLICATION

|             |  |
|-------------|--|
| EN 50306-2  | Hazard levels HL1, HL2, HL3                      |
| DIN 5510-2  | Protection level 1/2/3/4                         |
| BS 6853     | Interior use 1a, 1b, II; Exterior use 1a, 1b, II |
| NF F 16-101 | F0   |



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|           |  |
|-----------|--|
| EN45545-2 | R15 Interior/ R16 Exterior HL1, HL2, HL3 |
|-----------|--|

## FIRE PERFORMANCE IN GENERAL

|   |   |
|---|---|
| EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)                                 | Vertical flame propagation for a single insulated wire or cable     |
| EN 50266-2-4 + EN 50305; IEC 60332-3-24;NF C 32-070 2.2 (C1); VDE 0472 Teil 804   | Vertical flame spread of vertically mounted bunched wires or cables |
| EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816 | Low Smoke Emission  |
| EN 50267-2-1; IEC 60754-1; NF C 32-074;NF C 20-454; VDE 0472 Teil 815             | Halogen Free  |
| EN 50267-2-2/3; IEC 60754-2; NF C 32-074;NF C 20-453; VDE 0472 Teil 813           | Low Corrosivity (Acidity & Conductivity)                            |
| EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853                                | Low Toxicity  |
| NF F 63 808; BS6853; NF F 16 101  | Smoke Index   |
| EN45545-2   | Requirement for fire behavior of materials & components R15/R16     |

## DIMENSION AND PARAMETERS

| No. of Pairs | Nominal Cross-sectional Area | No./Nominal Diameter of Strands | Approx. Overall Diameter | Nominal Copper Weight |
|--------------|------------------------------|---------------------------------|--------------------------|-----------------------|
|              | mm <sup>2</sup>              | no./mm                          | mm                       | kg/km                 |
| 4            | 0.75                         | 24/0.2                          | 11.6                     | 182                   |



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Abrasion Retardant



Acid & Alkaline Resistant



Cold Resistant



Corona Resistant



Fire Retardant  
NF C32-070-2,2(C1)  
IEC60332-3-24/EN50266-2-4



Flame Retardant  
NF C32-070-2,1(C2)  
IEC60332-1-2/EN50265-2-1



Highly Flexible



IRM 902  
Mineral Oil Resistant



IRM 903  
Fuel Oil Resistant



Low Corrosivity  
IEC60754-2/EN50267-2-2/3  
NF C32-074/NF C20-453



Low Smoke Emission  
IEC 61034-2 / EN 50268-2  
NF C32-073/NF C 20-902



Low Toxicity  
EN 50305; NF X70-100/NF  
F63 808/TM1-04/BS 6853



Ozone Resistant



Resistance To Soldering Heat



UV Resistant



Zero Halogen  
IEC 60754-1/EN 50267-2-1  
NF C20-454