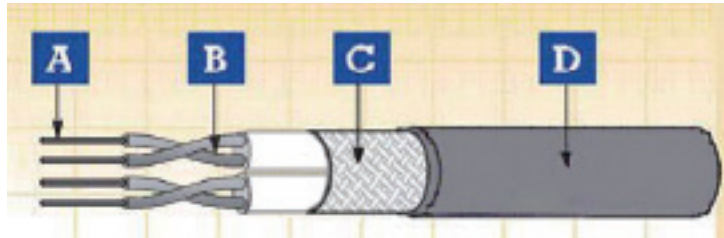


## RS 485 Databus Cables

300/500 V

FRL-MVB-02Y(ST)CH-IO5-xPyS/FRL-MVB-02YCH-OS-xPyS



A. Conductor B. Insulation+Pair Screen C. Overall Screen D. Sheath

### Application

120 Ohm data transmission cables

### 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

#### Multipair Databus RS 485 Single 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
- Overall Screen: Copper wire braid
- Outer Sheath: Cross linked EVA rubber type EM 104 or equivalent, in accordance with EN 50264-1

### Electrical & Mechanical Properties

Nominal Voltage	300/500 V
Impedance	120 Ω±15 %
Capacitance@1KHz	41 nF/km
Min. Insulation Resistance	5000 MΩ

### Chemical & 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, HL4
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

### 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;	Vertical flame spread of vertically mounted bunched wires or cables
NF C 32-070 2.2 (C1); VDE 0472 Teil 804	
EN 50268-2; IEC 61034-2; NF C 32-073 ;	Low Smoke Emission

NF C 20-902; NF F 16 101; VDE 0472 Teil 816  
 EN 50267-2-1; IEC 60754-1; NF C 32-074;  
 NF C 20-454; VDE 0472 Teil 815  
 EN 50267-2-2/3; IEC 60754-2; NF C 32-074;  
 NF C 20-453; VDE 0472 Teil 813  
 EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853  
 NF F 63 808; BS6853; NF F 16 101

Halogen Free  
 Low Corrosivity (Acidity & Conductivity)  
 Low Toxicity  
 Smoke Index

**FRL-MVB-02Y(ST)CH-IOs-xPyS 300/500 V**

No. of Pair x	Nominal Cross-Sectional Area y	Number & Nominal Diameter of Strands	Nominal Overall Diameter	Nominal Weight
	mm <sup>2</sup>	No/mm	mm	kg/km
1	0.22	7/0.2	4.5	58
2	0.22	7/0.2	6.2	79
4	0.22	7/0.2	6.5	118
1	0.5	16/0.2	6.6	79
2	0.5	16/0.2	9.0	105
4	0.5	16/0.2	9.8	145
1	0.75	24/0.2	9.5	115
2	0.75	24/0.2	10.3	135
4	0.75	24/0.2	11.6	182
1	1	30/0.2	11.5	125
2	1	30/0.2	12.5	150
4	1	30/0.2	13.5	180

**FRL-MVB-02YCH-OS-xPyS 300/500 V**

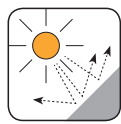
No. of Pair x	Nominal Cross-Sectional Area y	Number & Nominal Diameter of Strands	Nominal Overall Diameter	Nominal Weight
	mm <sup>2</sup>	No/mm	mm	kg/km
1	0.22	7/0.2	4.2	55
2	0.22	7/0.2	5.9	75
4	0.22	7/0.2	6.2	115
1	0.5	16/0.2	6.3	75
2	0.5	16/0.2	8.5	100
4	0.5	16/0.2	9.4	140
1	0.75	24/0.2	9.0	110
2	0.75	24/0.2	9.7	130
4	0.75	24/0.2	11.1	178
1	1	30/0.2	11.0	120
2	1	30/0.2	12.0	145
4	1	30/0.2	13.0	175



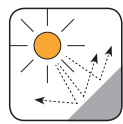
Corona Resistant



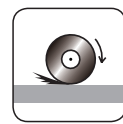
Highly Flexible



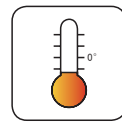
UV Resistant



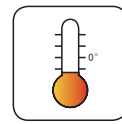
Ozone Resistant



Abrasion Retardant



Cold Resistant



Resistance To Soldering Heat



Acid &amp; Alkaline Resistant


 IRM 903  
 Fuel Oil Resistant

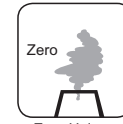
 IRM 902  
 Mineral Oil Resistant

 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

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

 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

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