Integrated 9/11/18/20 Cores 0.75mmsq UIC Databus Cables
FRL-UIC-4G10+2G6+1G2.5+2G0.75
FRL-UIC-4G10+2G6+1G2.5+2G1+2G0.75
FRL-UIC-4Q1S+2G0.75/FRL-UIC-4Q1S+2P0.75S

Application
The cables are used as connecting cables to transmit digital signals inside railway rolling stocks.

Construction

For 9 cores UIC databus cables
4 cores: 10 mm² stranded tinned copper conductor with LSZH insulation
Combined Element: 3 cores (with Cu-strand 2 x 6mm², 1 x 2.5mm²) are twisted with a filling element to form a combined element
Core Wrapping: Overlapped plastic-foil(s)
Elements Sheaths: TPE
UIC Data Bus 0.75mm²: Two foam PE or foam skin PE insulated tinned copper stranded conductors are twisted together with two filling elements to form a pair
Core Wrapping: Overlapped plastic-foil(s)
Screen: Tin plated copper braid
Core Wrapping: Overlapped plastic-foil(s)
Stranding: 4 strands are twisted to a core together with 3 cored element, the UIC data bus and two fillers
Core Wrapping: Overlapped plastic-foil(s)
Outer Sheath: Cross-linked oil resistant LSZH compound

For 11 cores UIC databus cables
4 cores: 10 mm² stranded tinned copper conductor with LSZH insulation
Combined Element: 5 cores (with Cu-strand 2 x 6mm², 1 x 2.5mm² and 2 x 1.0 mm²) are twisted with a filling element to form a combined element
Core Wrapping: Overlapped plastic-foil(s)
Elements Sheaths: TPE
UIC Data Bus 0.75mm²: Two foam PE or foam skin PE insulated tinned copper stranded conductors are twisted together with two filling elements to form a pair
Core Wrapping: Overlapped plastic-foil(s)
Screen: Tin plated copper braid
Element Sheaths: TPE
Core Wrapping: Overlapped plastic-foil(s)
Databus Cables

Stranding: 4 strands are twisted to a core together with 5 cored element, the UIC data bus and two fillers
Core Wrapping: Overlapped plastic-foil(s)
Outer Sheath: Cross-linked oil resistant LSZH compound

For 18/20 cores UIC databus cables
Star Quad: Four LSZH insulated 1mm² stranded tinned copper conductors are twisted to form a star quad.
UIC Data Bus 0.75mm²: Two foam PE or foam skin PE insulated tinned copper stranded conductors are twisted together with two filling elements to form a pair
Core Wrapping: Overlapped plastic-foil(s)
Screen: Tin plated copper braid
Element Sheaths: TPE
Core Wrapping: Overlapped plastic-foil(s)
Stranding: 4 star quads are stranded together with 2 or 4 UIC data bus cable and several fillers
Core Wrapping: Overlapped plastic-foil(s)
Screen: Tin plated copper braid.
Outer Sheath: Cross-linked oil resistant LSZH compound

Electrical & Mechanical Properties
Nominal Voltage: 300 V
Max. Temperature: 90 °C
Min. Temperature: -40 °C
Bending Radius: 12 × Overall Diameter

Chemical & Environmental Properties
EN 60684-2
EN 50305; EN 60811-2-1
EN 50305

Fire Performance for Rolling Stock Application
EN 50306-2
DIN 5510-2
BS 6853
NF F 16-101

Fire Performance in General
EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)
EN 50266-2-4 + EN 50305; IEC 60332-3-24;
NF C 32-070 2.2 (C1); VDE 0472 Teil 804
EN 50268-2; IEC 61034-2; NF C 32-073 ;
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

Vertical flame propagation for a single insulated wire or cable
Vertical flame spread of vertically mounted bunched wires or cables
Low Smoke Emission
Halogen Free
Low Corrosivity (Acidity & Conductivity)
Low Toxicity
Smoke Index
### Caledonian

**FRL-UIC-4G10+2G6+1G2.5+2G0.75**

<table>
<thead>
<tr>
<th>Nominal Cross-Sectional Area</th>
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<td>0.75</td>
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<td>1.8</td>
<td>25</td>
<td>917</td>
<td>26.7</td>
<td>120+/-12</td>
<td>10 13 14 18</td>
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<tr>
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<tr>
<td>2.5</td>
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**Notes:**
- **Corona Resistant:**
- **Highly Flexible:**
- **UV Resistant:**
- **Ozone Resistant:**
- **Abrasion Resistant:**
- **Cold Resistant:**
- **Resistance To Soldering Heat:**
- **Acid & Alkaline Resistant:**
- **Flame Retardant:**
- **Fuel Oil Resistant:**
- **Mineral Oil Resistant:**
- **Zero Halogen:**
- **Zero Fire Retardant:**
- **Low Smoke Emission:**
- **Low Corrosivity:**
- **Low Toxicity:**
- **Low Corrosivity:**
- **Low Smoke Emission:**
- **Low Fire Retardant:**
- **Resistance To Soldering Heat:**
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- **Low Corrosivity:**
- **Low Smoke Emission:**
- **Low Fire Retardant:**
- **Resistance To Soldering Heat:**
- **Acid & Alkaline Resistant:**

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**IRM 903** Fuel Oil Resistant
**IRM 902** Mineral Oil Resistant
**Zero Halogen**
**Zero Fire Retardant**
**Low Smoke Emission**
**Low Corrosivity**
**Low Toxicity**
**Low Smoke Emission**
**Low Fire Retardant**
**Resistance To Soldering Heat**
**Acid & Alkaline Resistant**

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