



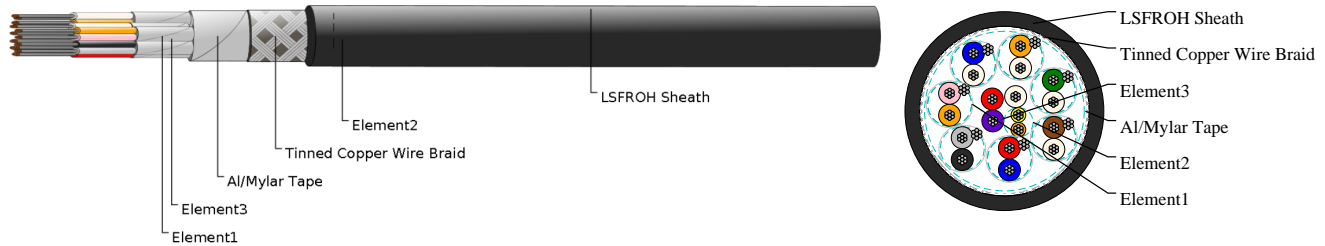
Caledonian

Composite Cables

www.caledonian-cables.com

marketing@caledonian-cables.com

DVI Rolling Stock Cable (7P+1P+3C)



FIRE PERFORMANCE

Vertical flame propagation for a single insulated wire or cable	EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)
Vertical flame spread of vertically mounted bunched wires or cables	EN 50266-2-4; EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804
Low Smoke Emission	EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816
Halogen Free	EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815
Low Corrosivity (Acidity & Conductivity)	EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813
Low Toxicity	EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853
Smoke Index	NF F 63 808; BS6853; NF F 16 101
Fire Performance Relating to Rolling Stock Application	DIN 5510-2;BS 6853;NF F16 101;NF F 63 808

CABLE CONSTRUCTION

Element 1: 7PR×24AWG(Cu/PE/Individual Al-mylar Screen+ TC Drain Wire)

Conductor: Stranded annealed tinned copper wire, 7/0.20mm

Insulation: Polyethylene. Thickness 0.28mm. Outer diameter 1.16+0.05mm

Core Identification: 1PR=White/Brown; 2PR=White/Red, 3PR=White/Green; 4PR=White/Blue, 5PR=Grey/Black, 6PR=Pink/Orange, 7PR=Light Blue/Purple

Twisting: The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm

Individual Shield:Aluminum/ mylar laminated tape applied with the metallic side down in electrical contact with a 24AWG tinned copper drain wire (7 strands formation).A 23 micron mylar tape is applied over the screening tape with a minimum 25% overlap.

Element 2: 1PR×24AWG(7/0.2mm) Stranded TC/PE

Conductor: Stranded annealed tinned copper wire, 7/0.20mm

Insulation: High density polyethylene. Thickness 0.15mm. Outer diameter 0.9mm

Insulation Color: Yellow and orange

Twisting: The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm



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Element 3: 3C×24AWG(7/0.2mm) Stranded TC/PE

Conductor: Stranded annealed tinned copper wire, 7/0.20mm

Insulation: High density polyethylene. Thickness 0.15mm. Outer diameter 0.9mm

Insulation Color: Red/Purple/White

Element Assembly

Overall Screen: Aluminum/ mylar tape

Braid Shield: Braid of tinned copper wire. Coverage $\geq 85\%$

Outer Sheath: LSFROH elastomeric sheath, Thickness 1.0mm. Outer diameter 12.5+1mm, other material is optional

Sheath Color: Black or as per the client's requirement

PHYSICAL AND THERMAL PROPERTIES

Physical Characteristic:

Temperature rating: -25°C to $+80^{\circ}\text{C}$

Minimum bending radius: 3 x Overall Diameter

Electrical Properties

Rated voltage: 30V

Max conductor resistance at 20°C : ≤ 89.2 Ohm/Km

Min insulation resistance: $\geq 100\text{M}$ Ohm/m

Test voltage: Min. AC 250V/1second

Nom. mutual capacitance at 1KHz: 57 pF/m