# Caledonian Railway Cables

## ZUG/ ZUT/ SUG Indoor Equipment Cables

#### **Applications**

The cables are used as cabling for the relays and electronic equipments in the Traffic Control Center and Trackside Equipment Shelter. The cables are suitable for indoor interconnection of railway network equipments.

#### Standards

• SNCF CT 455

#### Construction

- Conductors: Class 5 stranded tinned copper,
- 1 mm<sup>2</sup> or 0.38 mm<sup>2</sup> cross section.
- Insulation: Coloured PVC.
- Cabling Element: Pairs (for ZUG/ZUT)/Cores (for SUG).
- Core Wrapping (optional): Plastic tape(s) with overlapping.
- Screen (optional): Tinned copper braid for electrostatic protection (only for ZUT type).
- Sheath: Black FRPVC compound. LSZH option can be offered upon request.

## Electrical Characteristics at 20°C

| No of Strands/ Strand Diameter    | No/mm | 12/0.2  | 32/0.2  |
|-----------------------------------|-------|---------|---------|
| Nominal Cross Section Area        | mm²   | 0.38    | 1       |
| Maximum Conductor Resistance (DC) | Ω/km  | 52.5    | 20.1    |
| Operating Voltage                 | V     | 450/750 | 450/750 |

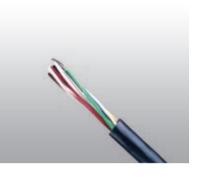
## Mechanical and Thermal Properties

- Minimum Bending Radius: 4×OD (static); 8×OD (dynamic)
- Operating Temperature: -15°C to +70°C

## Dimensions and Weight

#### ZUG Cables

| Cable Code                                | Number of Pairs | Nominal Sheath Thickness mm | Nominal Overall Diameter mm | Nominal Weight<br>kg/km |
|---|-----------------|-----------------------------|-----------------------------|-------------------------|
| 12/0.2mm Conductor, 1.4mm Insulated Wire  |                 |                             |                             |                         |
| RS/ZUG-075-YY-28P0.38S                    | 28              | 0.7                         | 15.7                        | 310                     |
| 32/0.2mm Conductor, 2.09mm Insulated Wire |                 |                             |                             |                         |
| RS/ZUG-075-YY-1P1S                        | 1               | 0.7                         | 7.0                         | 59                      |



FRPVC/LSZH Sheath
Stranded Tinned Copper Conductor
PVC Insulation
Twisted Pair
Non Hygroscopic Tape





| Cable Code          | Number of Pairs | Nominal Sheath Thickness<br>mm | Nominal Overall Diameter mm | Nominal Weight kg/km |
|---------------------|-----------------|--------------------------------|-----------------------------|----------------------|
| RS/ZUG-075-YY-3P1S  | 3               | 0.7                            | 9.9                         | 108                  |
| RS/ZUG-075-YY-6P1S  | 6               | 0.7                            | 12.4                        | 184                  |
| RS/ZUG-075-YY-12P1S | 12              | 0.7                            | 15.7                        | 335                  |

#### SUG Cables

| Cable Code                                | Number of<br>Conductors | Nominal Sheath Thickness mm | Nominal Overall Diameter mm | Nominal Weight<br>kg/km |
|---|-------------------------|-----------------------------|-----------------------------|-------------------------|
| 32/0.2mm Conductor, 2.09mm Insulated Wire |                         |                             |                             |                         |
| RS/SUG-075-YY-3C1S                        | 3                       | 0.7                         | 8                           | 73                      |

#### **ZUT** Cables

| Cable Code                                | Number of Pairs | Nominal Sheath Thickness mm | Nominal Overall Diameter<br>mm | Nominal Weight<br>kg/km |
|---|-----------------|-----------------------------|--------------------------------|-------------------------|
| 32/0.2mm Conductor, 2.09mm Insulated Wire |                 |                             |                                |                         |
| RS/ZUT-075-YCY-2P1S                       | 2               | 0.7                         | 9.5                            | 122                     |
| RS/ZUT-075-YCY-6P1S                       | 6               | 0.7                         | 13.5                           | 276                     |
| RS/ZUT-075-YCY-12P1S                      | 12              | 0.7                         | 17.5                           | 445                     |







Rated voltage

Laid In Cable Tray Flame Retardant NF C32-070-2.1(C2) IEC 60332-1/EN 50265-2-1

