

Cables for bus system DeviceNet

Characteristic impedance: 120 ohm

UNITRONIC® BUS DeviceNet THICK + THIN



Info

- DeviceNet

Application range

- Stationary application
- DeviceNet™ connects industrial devices e.g. limit switches, photoelectric switches, valve islands, motor starters, drives, PLCs, etc.
- DeviceNet™ Bus system (Rockwell Automation)

Product features

- Based on proven CAN (Controller Area Network) technology.
- Permissible cable lengths vary with the data rate and the cable thickness
- THICK cable total trunk length
 - 125 kbit/s = 500 m
 - 250 kbit/s = 250 m
 - 500 kbit/s = 100 m
- THIN cable total trunk length
 - 125 kbit/s = 6 m
 - 250 kbit/s = 6 m
 - 500 kbit/s = 6 m

Approvals (Norm references)



Product Make-up

- Stranded tinned copper conductor
- PE core insulation
- PVC outer sheath
- Colour: chrome grey, RAL 7005

Technical data

- Core identification code**
Data pair: light blue + white
Power supply: red + black
- Mutual capacitance**
(800 Hz): max. 40 nF/km
- Peak operating voltage**
300 V (not for power applications)
- Conductor resistance**
Thick (loop): max. 45 ohm/km
Thin (loop): max. 180 ohm/km
- Minimum bending radius**
Fixed installation:
10 x cable diameter
- Test voltage**
1000 V
- Temperature range**
Fixed installation: -20°C to +70°C
- Characteristic impedance**
at 1 MHz: 120 +/- 10 Ohm

| Article number | Article designation | Number of pair and AWG per conductor | Outer diameter (mm) | Copper index (kg/km) | Weight (kg/km) |
|----------------|---------------------|--------------------------------------|---------------------|----------------------|----------------|
| 3801234 | DeviceNet THICK | 1x2x18AWG + 1x2x15AWG | 12.0 | 80.9 | 158.7 |
| 3801235 | DeviceNet THIN | 1x2x24AWG + 1x2x22AWG | 7.2 | 30.5 | 66.9 |

Photographs are not to scale and do not represent detailed images of the respective products.

Data communication systems

Coaxial cables

High frequencies

COAXIAL RG SERIES RG 59/U, RG 6/90, RG 11/U



Info

- 75 Ohm

Benefits

- Broadband for low loss attenuation of high frequency signal

Application range

- CATV and data networking
- Optimizing frequency up to 1000 MHz
- Suitable for use in dry and damp areas

Product features

- Double screen, offer good screening against external interference
- UV-resistant
- Flame retardant in acc. to IEC 60332-1-2

Approvals (Norm references)



- TUV SUD PSB type test for 3801313

Product Make-up

- Bare copper clad steel solid conductor
- Foam PE insulation
- Aluminium foil bonded, 100% coverage
- Aluminium wire braiding
- PVC outer sheath, black

Technical data

- Mutual capacitance**
53.1 pF/m
- Minimum bending radius**
Fixed installation:
10 x cable diameter
- Temperature range**
Fixed installation: -30°C to +80°C
- Characteristic impedance**
75 +/- 3 Ohm

| Article number | Article designation | Conductor cross-section | Outer diameter (mm) | Working voltage in V | Min. braiding coverage | Copper index (kg/km) | Weight (kg/km) |
|----------------|---------------------|-------------------------|---------------------|----------------------|------------------------|----------------------|----------------|
| 3800768 | RG 59/U | 1x20 AWG | 6.0 | 350 | 68% | 0.3 | 33 |
| 3801313 | RG 6/90 | 1x18 AWG | 6.8 | 350 | 90% | 0.5 | 43 |
| 3800720 | RG 11/U | 1x14 AWG | 10.2 | 600 | 60% | 1.2 | 100 |

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 APPENDIX