

RD-Y(St)Yv / RD-Y(St)YY reinforced (double) outer jacket, instrumentation cable, Maxi-Termi-Point®



Technical data

- Special PVC data transmission cable adapted to DIN VDE 0815 and 0816
- **Conductor resistance** (loop) max. 73,6 Ohm/km
- **Temperature range** flexing -5°C to +50°C fixed installation -40°C to +70°C
- **Operating voltage** (peak value) max. 600 V
- **Test voltage** core/core 2000 V core/screen 2000 V
- **Insulation resistance** core/core min. 100 MOhm x km core/screen min. 100 MOhm x km
- **Mutual capacitance** at 800 Hz max. 100 nF/km (this value may be exceeded by 20% with a make-up to 4 pairs)
- **Impedance** at 1 kHz approx. 370 Ohm at 10 kHz approx. 130 Ohm
- **Capacity unbalance** at 800 Hz max. 200 pF/100 m (20% of the values, but one value up to 400 pF is allowed)
- **Line attenuation** at 1 kHz approx. 1,2 dB/km at 10 kHz approx. 3,0 dB/km
- **Cross-talk attenuation** at 10 kHz and cable length of 500 m min. 60 dB
- **Minimum bending radius** approx. 7,5x cable Ø

Cable construction

- Bare copper stranded wires 0,5 mm² (7x0,3 mm)
- PVC core insulation
- Cores colour coded
- Cores twisted in pairs (approx. 20 pitch/m \pm 50 mm) 4 pairs stranded to a unit
- Units stranded in concentric layers
- Electrostatic screen of plastic coated aluminium foil and drain-wire tinned, 0,5 mm² (7x0,3 mm)
- PVC outer jacket
- Colour grey (RAL 7001)
- Core colours:
pair-no.1, a-core=blue, b-core=red
pair-no.2, a-core=grey, b-core=yellow
pair-no.3, a-core=green, b-core=brown
pair-no.4, a-core=white, b-core=black (4 pairs = 1 unit)

Properties

- PVC self-extinguishing and flame retardant according to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The static screen protects the transmission circuits against outer electrical interferences
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Note

- AWG sizes are approximate equivalent values. The actual cross-section is in mm².
- Cop.Weight including drain-wire.
- Maxi-Termi-Point® = registered trade mark AMP.

Application

The data transmission cables RD-Y(St)Yv are used in measurement and control technology such as in control rooms of industrial plants and power stations. The pairs are twisted with short pitches and different lay-lengths which lead to good crosstalk attenuation values in a unit. The cables serve for transmission of analog and digital signals up to frequencies of approx. 10 kHz. These cables offer considerable advantages by using the quick and economical connecting possibilities in Maxi-Termi-Point® technique. This solderless connecting technique is defined by a compression termination that employs a spring-clip for the connection of the cable to a square rigid post without pre-stripping. For this technique it is necessary to have an exact 7-core stranded conductor and a Semi-Rigid-PVC. Suitable for fixed installation only inside of buildings. With the reinforced PVC(-Yv) outer jacket these cables are suitable for fixed installation in inside buildings and also in open air and in underground.

CE = The product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC.

RD-Y(St)Yv

| Part No. | No. pairs x cross-sec. mm ² | Core Ø ca. mm | No. units | Outer Ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|--|---------------|-----------|----------------|---------------------|--------------------|---------|
| 20160 | 2 x 2 x 0,5 | 2,0 | - | 8,0 | 25,0 | 80,0 | 20 |
| 20161 | 4 x 2 x 0,5 | 2,0 | 1 | 10,0 | 45,0 | 125,0 | 20 |
| 20162 | 8 x 2 x 0,5 | 2,0 | 2 | 13,0 | 85,0 | 200,0 | 20 |
| 20163 | 12 x 2 x 0,5 | 2,0 | 3 | 13,5 | 125,0 | 255,0 | 20 |
| 20164 | 16 x 2 x 0,5 | 2,0 | 4 | 15,0 | 165,0 | 315,0 | 20 |
| 20165 | 24 x 2 x 0,5 | 2,0 | 6 | 17,5 | 245,0 | 370,0 | 20 |
| 20166 | 32 x 2 x 0,5 | 2,0 | 8 | 21,5 | 325,0 | 555,0 | 20 |
| 20167 | 48 x 2 x 0,5 | 2,0 | 12 | 24,0 | 485,0 | 170,0 | 20 |
| 20168 | 96 x 2 x 0,5 | 2,0 | 24 | 38,0 | 965,0 | 1300,0 | 20 |

RD-Y(St)YY

| Part No. | No. pairs x cross-sec. mm ² | Core Ø ca. mm | No. units | Outer Ø ca. mm | Cop. weight kg / km | Weight ca. kg / km | AWG-No. |
|----------|--|---------------|-----------|----------------|---------------------|--------------------|---------|
| 20180 | 2 x 2 x 0,5 | 2,0 | - | 8,5 | 25,0 | 90,0 | 20 |
| 20181 | 4 x 2 x 0,5 | 2,0 | 1 | 10,5 | 45,0 | 140,0 | 20 |
| 20182 | 8 x 2 x 0,5 | 2,0 | 2 | 13,5 | 85,0 | 220,0 | 20 |
| 20183 | 12 x 2 x 0,5 | 2,0 | 3 | 14,5 | 125,0 | 275,0 | 20 |
| 20184 | 16 x 2 x 0,5 | 2,0 | 4 | 16,0 | 165,0 | 350,0 | 20 |
| 20185 | 24 x 2 x 0,5 | 2,0 | 6 | 18,5 | 245,0 | 470,0 | 20 |
| 20186 | 32 x 2 x 0,5 | 2,0 | 8 | 28,5 | 325,0 | 620,0 | 20 |
| 20187 | 48 x 2 x 0,5 | 2,0 | 12 | 25,0 | 485,0 | 850,0 | 20 |
| 20188 | 96 x 2 x 0,5 | 2,0 | 24 | 39,0 | 965,0 | 1450,0 | 20 |

Dimensions and specifications may be changed without prior notice.