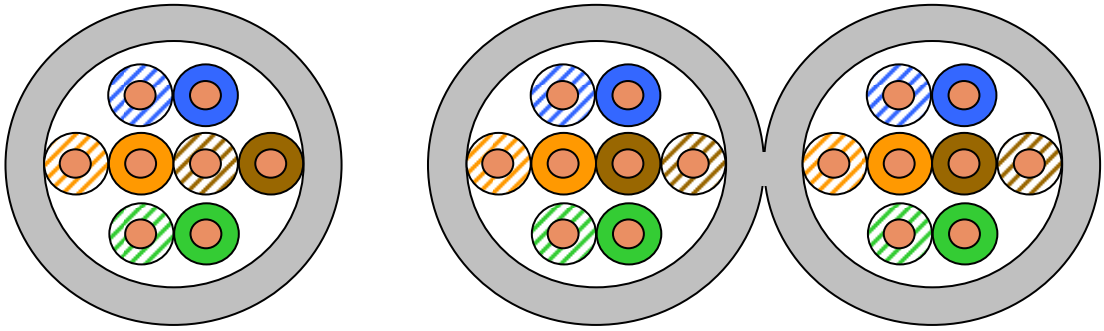
# Draka Comteq Cat.5e U/UTP

100Ω Data Installation Cable ISO/IEC 11801 CAT-5e





**Application**: Primary (Campus), Secondary (Riser), Tertiary (Horizontal)
IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;
IEEE 802.5 16 MB; ISDN; TPDDI; ATM

**Standards:** EIA/TIA 568A;
ISO/IEC 11801 2nd ed.; IEC 61156-5
EN 50173; EN 50288-3-1

**Fire rating**
**PVC**: IEC 60332-1
**FRNC**: IEC 60332-1; IEC 60754-2; IEC 61034;

## Construction

| | |
|---|---|
| Conductor | bare copper wire Ø 0.5 mm (AWG24) |
| Insulation | Polyethylene, Ø 0.9 mm |
| Twisting | 2 cores to the pair |
| Cable lay up | 4 pairs to the core |
| Sheath | PVC alt. FRNC, grey RAL 7035<br>Duplex sheath: two cables parallel, separable |

## Technical Data

| Product code | Designation | Brand name | Outer diameter | Fire load | | Weight | Copper content | Tensile force |
|---|---|---|---|---|---|---|---|---|
| | | | Mm | MJ/km | kWh/m | kg/km | kg/km | N |
| CD2743731 | J-2YY 4x2x0.5 | Draka Comteq Cat.5e U/UTP 4P PVC | 5.0 | 365 | 0.101 | 35 | 17.5 | 80 |
| CD2993120 | J-2YH 4x2x0.5 | Draka Comteq Cat.5e U/UTP 4P LSOH | | 336 | 0.093 | 36 | | |
| CD2756531 | J-2YY 2x(4x2x0.5) | Draka Comteq Cat.5e U/UTP 2x4P PVC | 5.0/10.0 | 730 | 0.202 | 70 | 35 | 160 |
| CD7656530 | J-2YH 2x(4x2x0.5) | Draka Comteq Cat.5e U/UTP 2x4P LSOH | | 672 | 0.186 | 72 | | |

# Draka Comteq Cat.5e U/UTP

100Ω Data Installation Cable ISO/IEC 11801 CAT-5e



## Mechanical Properties

| | | |
|---|---|---|
| Bending radius | | ≥ 20 mm without load<br>≥ 40 mm with load |
| Temperature range, | during operation<br>during installation | -20°C upto + 60°C<br>0°C upto + 50°C |

## Electrical Properties (at 20°C ± 5°C)

| | |
|---|---|
| DC loop resistance | ≤ 190 Ω /km |
| Resistance unbalance | ≤ 2% |
| Insulation resistance (500 V) | ≥ 2000 MΩ *km |
| Capacitance at 800 Hz | nom. 48 nF/km |
| Capacitance unbalance (pair to ground) | ≤ 1500 pF/km |
| Characteristic impedance (1-100 MHz) | (100 ± 15) Ω |
| Nominal velocity of propagation | approx. 67 % |
| Propagation delay | ≤ 535 ns/100m |
| Delay skew | ≤ 20 ns/100m |
| Test voltage (DC, 1 min) Core/Core | 1000 V |

## Nominal transmission characteristics acc. to Category 5e (at 20 °C)

| f (MHz) | Attenuation (dB/100m) | NEXT (dB) | PS-NEXT (dB) | ACR (dB/100m) | PS-ACR (dB/100m) | ELFEXT (dB/100m) | PS-ELFEXT (dB/100m) | Return loss (dB) |
|---|---|---|---|---|---|---|---|---|
| 1 | 1,9 | 71 | 68 | 69,1 | 66,1 | 68 | 65 | 20 |
| 4 | 3,7 | 62 | 59 | 58,3 | 55,3 | 56 | 53 | 23 |
| 10 | 6 | 56 | 53 | 50 | 47,0 | 48 | 45 | 25 |
| 16 | 7,6 | 53 | 50 | 45,4 | 42,4 | 44 | 41 | 25 |
| 20 | 8,5 | 51 | 48 | 42,5 | 39,5 | 42 | 39 | 25 |
| 31,2 | 10,7 | 49 | 46 | 38,3 | 35,3 | 38 | 35 | 24 |
| 62,5 | 15,7 | 44 | 41 | 28,3 | 25,3 | 32 | 29 | 22 |
| 100 | 19,8 | 41 | 38 | 21,2 | 18,2 | 28 | 25 | 20 |
| 125 | 22,3 | 40 | 37 | 17,7 | 14,7 | 26 | 23 | 19 |
| 155,5 | 24,2 | 38 | 35 | 13,8 | 10,8 | 24 | 21 | |
| 175 | 25,7 | 37 | 34 | 11,3 | 8,3 | 23 | 20 | |
| 200 | 27,5 | 36 | 33 | 8,5 | 5,5 | 22 | 19 | |
| 250 | 29,2 | 35 | 32 | 5,8 | 2,8 | 20 | 17 | |
| 300 | 32,0 | 34 | 31 | 2,0 | -1,0 | 16 | 13 | |