

High Reliability USB 2.0 Cordsets



General construction: this is a USB-2.0 cable containing one 28 AWG 90Ω characteristic impedance data pair, two 24 AWG power conductors, overall SFTP shields (SFTP = double shielding, braid and foiled), jacketed in black UV resistant Polyurethane HFFR*. Designed for fixed or portable applications in industrial and harsh environments.
*HFFR: Halogen Free Flame Retardant.

Jacket compound specification:
Halogen Free Flame Retardant Polyether-based Polyurethane. Glossy finish. Excellent hydrolysis resistance. High microbial resistance. UV resistant. High flexibility.

- Applications**
- Robotics
 - Motion control
 - Railways
 - CNC machines
 - Battelfield communication
 - Industrial process

Data
for cable alone only
(without USB plug)

| PHYSICAL CHARACTERISTICS | |
|--|--|
| DATA CONDUCTORS | bare copper, 7/0.12 mm nom (28 AWG) |
| DATA INSULATION | 0.9 mm nom |
| COLOR DATA PAIR | Green & white |
| POWER CONDUCTORS | Tinned copper, 7/0.2 mm (24 AWG) |
| POWER INSULATION | 1.1 mm nom |
| COLOR POWER WIRE | Red & Black |
| SHIELDS | Foil: providing 100% coverage, in contact with tinned copper drain wire and an overall braid providing 65% nom. coverage made of 16x5/0.1 mm tinned copper strands |
| JACKET | PU compound |
| COLOR JACKET | Black |
| WEIGHT | 26 lbs/mft (38 kg/km) |
| OUTSIDE DIAM. | 0.20 inch (5.1 mm nom. +/- 0.15) |
| MIN BEND RADIUS <i>(During installation)</i> | 45.9 mm (9x O. D.) |
| MIN BEND RADIUS <i>(During operation)</i> | 25.5mm (5 x O.D.) |
| TEMPERATURE installation | Plus 60°C, minus 5°C |
| TEMPERATURE operational | Plus 85°C, minus 40°C |

| CORDSETS WITH A USB A PLUG OVERMOLDED ON EACH END (OUT OF USB SPECIFICATION > 5 M) | |
|--|----------------------|
| Length (m/ft) | Part number |
| 6 m / 19.68 ft | USB2 AA 600 PU HFFR |
| 7 m / 22.96 ft | USB2 AA 700 PU HFFR |
| 8 m / 26.24 ft | USB2 AA 800 PU HFFR |
| 9 m / 29.52 ft | USB2 AA 900 PU HFFR |
| 10 m / 32.80 ft | USB2 AA 1000 PU HFFR |

| REEL OF DRUM (WITHOUT USB PLUG ON ENDS) | |
|---|---------------|
| Length | PN |
| 300 m / ~ 984 ft | 190-040567-00 |

| ELECTRICAL CHARACTERISTICS | |
|--------------------------------|---------------------------------------|
| DC RESISTANCE | 94 Ohms/Km @ 20°C |
| IMPEDANCE | 90 +/- 13 Ohms 1-400 MHz |
| ATTENUATION | |
| 1 KHZ | 8 db/100m max. |
| 4 MHZ | 15,6 db/100m max. |
| 24 MHZ | 38 db/100m max. |
| 96 MHZ | 76 db/100m max. |
| 200 MHZ | 128 db/100m max. |
| 400 MHZ | 232 db/100m max. |
| CAPACITANCE 2X28 AWG | 54pF/m nom. @ 1KHz |
| CAPACITANCE UNBALANCE | 2.0 pF/m max. @ 1KHz (wire to ground) |
| DIELECTRIC STRENGTH | VAC/1 min - 500 V/Min |
| RESISTANCE UNBALANCE | 2% max. @ 20°C |
| VELOCITY OF PROPAGATION | 65% min. 68% max. |

| CORDSETS WITH A USB A PLUG OVERMOLDED ON EACH END (UNDER USB SPECIFICATION ≤ 5M) | |
|--|---------------------|
| Length (m/ft) | Part number |
| 0.5 m / 1.64 ft | USB2 AA 050 PU HFFR |
| 1 m / 3.28 ft | USB2 AA 100 PU HFFR |
| 1.50 m / 4.92 ft | USB2 AA 150 PU HFFR |
| 2 m / 6.56 ft | USB2 AA 200 PU HFFR |
| 2.50 m / 8.2 ft | USB2 AA 250 PU HFFR |
| 3 m / 9.84 ft | USB2 AA 300 PU HFFR |
| 3.50 m / 11.48 ft | USB2 AA 350 PU HFFR |
| 4 m / 13.12 ft | USB2 AA 400 PU HFFR |
| 4.5 m / 14.76 ft | USB2 AA 450 PU HFFR |
| 5 m / 16.40 ft | USB2 AA 500 PU HFFR |