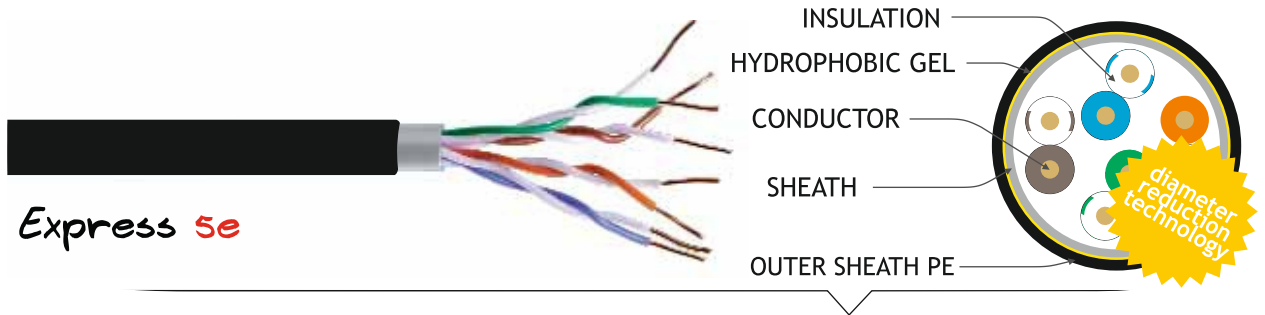


Structural Cabling System Fibrain Data
Category 5e cabling
 U/UTP PVC+PE sheath

01



OUTDOOR Cable 200 MHz PVC+PE sheath
 U/UTP cat. 5e+

FIBRAIN DATA cabling Express series is fully complied to requirements of category 5e (class D) according to the norm ISO/IEC 11801 2nd edition: 2002. Moreover all channels components are complied to directive ROHS 2002/95/WE.

| Electrical and construction parameters: | | |
|--|--------------|----------------|
| Parameter | | |
| Resistance (max) Ohm/100 m(328 ft) @ 20 °C | | 8,90 |
| Mutual capacitance (max) nF/100 m(328 ft) @ 1 kHz | | 5,60 |
| Nominal velocity of propagation NVP (% speed of light) | | 68 |
| Impedence characteristic (Ohm) | | (min-max) |
| values at: | 772 kHz | 87-117 |
| | 1,0-200 MHz | 85-115 |
| Return loss (RL) dB (min) | | |
| values at: | 1,0 - 10 MHz | 20+5 log(f) |
| | 10 - 20 MHz | 25 |
| | 20 - 100 MHz | 25-7 log(f/20) |
| Propagation delay (max) (ns @ 10 MHz) | | 540 |
| Delay skew (max) (ns/100 m) | | 45 |
| Diameter (mm) | | 6,5 |
| Weight (kg/km) | | 45 |
| Minimal bending radius (mm) | | 26 |

Construction:

- Conductor - 24AWG (0,51 mm)
- Insulation - polyolefin
- Pair number - 4 pairs twisted
- Internal jacket - PVC grey color
- External jacket - PE black color
- Hydrophobic gel under the outer sheath

Application:

- 10BASE-T (IEEE 802.3)
- 4/16 Mbps Token Ring (IEEE 802.5)
- 100BASE-VG-AnyLAN
- 100 Mbps TP-PMD (ANSI X3T9.5)
- 100BASE-T (IEEE 802.3)
- 55/155 Mbps ATM
- 1000BASE-T (Gigabit Ethernet)

Norms:

- IEC 60332-1
- ANSI/TIA/EIA 568-C.2 (Cat. 5e)
- ISO/IEC 11801
- IEC 61156-5
- EN 50173, EN 50288

Cable marking:

Every cable meter is marked as follow:

- **Brand:** FIBRAIN DATA
- **Cable type:** U/UTP 4PR 24AWG CAT.5E 200 MHz
- **Jacket type:** PVC+PE
- **Norms:** IEC 61156-5 ISO/IEC 11801 EN 50173
- **Production year:** XXXX
- **Identification:** XXXXX
- **Length mark in meters**



| Frequency MHz: | Attenuation Max dB/100 m: | NEXT dB/100 m(min): | PS-NEXT dB/100 m(min): | ACR-F dB/100 m(min): | PS-ACR-F dB/100 m(min): |
|----------------|---------------------------|---------------------|------------------------|----------------------|-------------------------|
| 0,772 | 1,8 | 72,0 | 69,0 | 68,2 | 65,2 |
| 1 | 2,1 | 70,3 | 67,3 | 66,0 | 53,0 |
| 4 | 4,0 | 61,3 | 58,3 | 54,0 | 51,0 |
| 10 | 6,2 | 55,3 | 52,3 | 46,0 | 43,0 |
| 16 | 7,9 | 52,2 | 49,2 | 41,9 | 38,9 |
| 25 | 10,0 | 49,3 | 46,3 | 38,0 | 35,0 |
| 31,25 | 11,2 | 47,9 | 44,9 | 36,1 | 33,1 |
| 62,5 | 16,2 | 43,4 | 40,4 | 30,1 | 27,1 |
| 100 | 20,9 | 40,3 | 37,3 | 26,0 | 23,0 |
| 155 | 26,7 | 37,4 | 34,4 | 22,2 | 19,2 |
| 200 | 30,8 | 35,8 | 32,8 | 20,0 | 17,0 |

XE100.155 FIBRAIN DATA Express U/UTP Kat.5e+ 200 MHz box 305 m OUTDOOR sheath type PVC+PE black color

XE100.156 drum 500 m

XE100.157 drum 1000 m