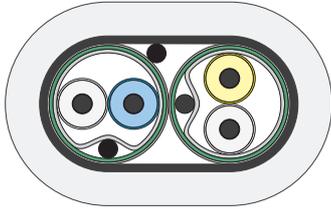


# Datacable - Twisted Pair - Category 4

**SPEEDLAN® – up to 20 MHz**

**LAN-20 C/STP 24-..P-120**



|                |                        |               |                        |
|----------------|------------------------|---------------|------------------------|
| 20 MHz         | Frequency range        | DA 2-8        | Number of double cores |
| Z 120Ω         | Impedance              | C             | Overall screening      |
| AWG 24         | Dimension of conductor | Cable make up |                        |
| Cable elements |                        |               |                        |

| Type               | Number of double cores | Fire load value kWh/m | Outer diameter approx. mm | Weight approx. kg/km |
|--------------------|------------------------|-----------------------|---------------------------|----------------------|
| LAN-20 C/STP 24-2P | 2                      | 0,271 (0,200)         | 5,4 x 8,6                 | 56 (54)              |
| LAN-20 C/STP 24-4P | 4                      | 0,456 (0,329)         | 9,5                       | 97 (91)              |
| LAN-20 C/STP 24-8P | 8                      | 0,702 (0,541)         | 11,8                      | 161 (151)            |

Values in ( ) are valid for FRNC-version

## Specification

### Application

Overall shielded data transmission cable for 20 MHz with individually shielded pairs.

High-screened data cable with high system reserves (near to Cat.5), outstanding EMV characteristics and low attenuation due to 120 Ohm impedance. Multipurpose cable usable in telecommunication facilities. Because of the lower attenuation (compared with 100 Ohm-cables) longer distances are bridgeable.

Usable for:  
xDSL, narrow-/broad band ISDN, analogue telephony, facsimile telegraphy.

### Construction details

Conductor: solid, bare copper wire Ø 0,49 mm  
 Insulation: Skin-foam-skin PE  
 Colour code: naturell/BU, naturell/YE (2P) or naturell/RD (4P, 8P)  
 Cable make up: cores twisted together wrapping with plastic tapes, tinned copper drain wire Ø 0,5 mm, aluminium laminated PET-foil (**STP**), wrapping with plastic tapes, identification with number-tapes (4P, 8P) shielded pairs cabled together (2 shielded pairs parallel),  
 Drain wire: tinned copper wire Ø 0,5 mm  
 Screening: tinned copper braid (**C**)  
 Sheath: PVC, grey (approx. RAL 7035)

### Note

Also available with halogenfree (LSOH, FRNC) sheath according to EN 50167 (**LAN-20 C/STP 24-..P FRNC**); orange

### Cable Marking

LAN-20 C/STP 24-..P CAT.4 ISO/IEC 11801 20MHZ PMD P/N... <JT< \* SPEEDLAN \* <00000m>

## Electrical Details (at 20°C)

| Standard  | Category 4 (ISO/IEC 11801)                                    |
|---|---|
| Loop resistance   | ≤ 192 Ω/km  |
| Insulation resistance   | ≥ 10 GΩkm   |
| Mutual capacitance (at f=800Hz)                                 | nom. 38 nF/km   |
| Capacitance unbalance k (at f=800Hz)                            | ≤ 100 pF/500m   |
| Capacitance unbalance e (at f=800Hz)                            | ≤ 750 pF/500m   |
| Propagation Delay (NVP)   | nom. 77%  |
| Transfer impedance R <sub>K</sub> at 1-100 MHz                  | ≤ 10 mΩ/m   |
| Impedance Z ≥ 1 MHz   | 120±15 % Ω  |
| Dielectric strength   | 1000V/50Hz conductor/conductor<br>1000V/50Hz conductor/shield |
| Temperature range during installation for stationary conditions | -5 up to +50 °C<br>-30 up to +70 °C                           |

| Frequency   | f               | MHz     |                    | 1    | 4    | 10   | 16   | 20   |
|-------------|-----------------|---------|--------------------|------|------|------|------|------|
| Attenuation | α               | dB/100m | max. <sup>1)</sup> | 2,0  | 4,0  | 6,7  | 8,1  | 9,2  |
|             |                 |         | typ.               | 1,7  | 3,3  | 5,6  | 7,6  | 8,3  |
| NEXT        | α <sub>NN</sub> | dB      | min. <sup>1)</sup> | 56   | 47   | 41   | 38   | 36   |
|             |                 |         | typ.               | >90  | >90  | 77   | 72   | 68   |
| ACR         |                 | dB      | min.               | 53,9 | 42,7 | 33,8 | 29,1 | 25,8 |
|             |                 |         | typ.               | >88  | >87  | 71,4 | 64,4 | 59,7 |

<sup>1)</sup> Category 4 – values according to ISO/IEC11801