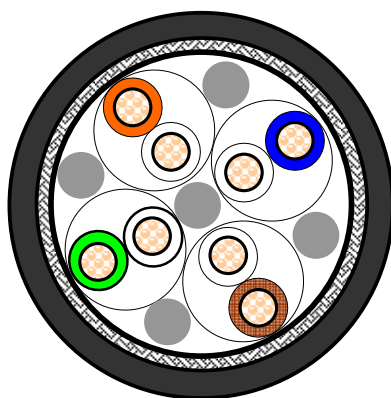


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STANDARDS

- ISO/IEC 11801 2nd edition (September 2002).
- EN 50173 – 1 (November 2002).
- TIA/EIA-568-B.2 (May 2001).

CABLE CONSTRUCTION



Conductor:

Material

Stranded PACW

Construction

19X0.1 mm (26 AWG)

Insulation:

Material

PP (solid)

Diameter

1.0 mm +/- 0.05

Pair

Pair

2 twisted insulated conductors

Number of pairs

4, twisted together + fillers

Colour code pair 1

White / Blue & Blue

Colour code pair 2

White / Orange & Orange

Colour code pair 3

White / Green & Green

Colour code pair 4

White / Brown & Brown

Foil-Screen

Material

Aluminium Polyester tape

Braided Screen:

Material

tinned copper wires

Coverage

>80%

Sheath:

Material

PUR Halogen-free and Weld-splatter resistant.

Diameter

6.4 +/- 0.3 mm

Foil

non-woven under the sheath

Colour

Black

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ELECTRICAL CHARACTERISTICS

Low frequency and D.C.

D.C. resistance conductor	< 140 Ω/km
Resistance unbalance	< 2 %
D.C. insulation resistance	> 5000 MΩ.km
Dielectric strength cond. – cond. (2 sec.)	2.5 kV D.C.
Mutual capacitance	< 56 nF/km
Capacitance unbalance	< 1600 pF/km

High frequency

Velocity of propagation @ 4 – 100 MHz	≥ 0.6 c
Skew @ 1 – 100 MHz	≤ 40 ns/100m
Propagation delay @ 1 – 100 MHz	≤ 534 + 36/√f ns/100m
Longitudinal attenuation	≤ 1.5*(1.9108*√f + 0.0222f + 0.2/√f)

Attenuation	1 MHz	3.2
dB/100m	4	6.2
Max.	10	9.5
	16	12.1
	20	13.6
	31.25	17.9
	62.5	24.8
	100.0	32.0

Near end cross talk (NEXT) @ 0.772 – 100 MHz	≥ 65.3-15xlog(f) dB
Power sum near end cross talk @ 0.772 – 100 MHz	≥ 62.3-15xlog(f) dB
Equal level far end cross talk (ELFEXT) @ 1 – 100 MHz	≥ 65.0-20xlog(f) dB
Power sum equal level far end cross talk (PSELFEXT) @ 1 – 100 MHz	≥ 61.0-20xlog(f) dB
Attenuation cross talk ratio (ACR)	
@ 1 – 4 MHz	≥ 65.3-15xlog(f)-(1.967*√f+0.023*f+0.05/√f) dB
@ 4 – 100 MHz	≥ 65.3-15xlog(f)-(1.9108*√f+0.0222*f+0.2/√f) dB
Power sum attenuation cross talk ratio (PSACR)	
@ 1 – 4 MHz	≥ 63.3-15xlog(f)-(1.967*√f+0.023*f+0.05/√f) dB
@ 4 – 100 MHz	≥ 63.3-15xlog(f)-(1.9108*√f+0.0222*f+0.2/√f) dB
Input impedance open/short (Zo/s) @ 4-100 MHz	100 ± 15 Ω
Mean characteristic impedance (Zcm) @ 100 MHz	100 ± 5 Ω
Return Loss (RL)	
@ 1 ≤ f ≤ 10 MHz	≥ 20 + 5 log (f) dB
@ 10 ≤ f ≤ 20 MHz	≥ 25 dB
@ 20 ≤ f ≤ 100 MHz	≥ 25 – 8.6 log (f/20) dB

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MECHANICAL CHARACTERISTICS

Elongation at break sheath	≥ 300 %
Tensile strength sheath	≥15 Mpa
Torsion-test (+/- 360 degrees, 12 cycles/min over 1mtr.)	> 2 million cycles

ENVIRONMENTAL AND OVERALL CHARACTERISTICS

Maximum operating voltage	450 V D.C. and 300 V A.C.
Maximum continuous current per conductor (@25°C)	1.4 A rms
Halogenfree acc to IEC 60754-2	
Oil resistant acc IEC 60811-2-1	
Minimum setting radius	30 mm
Temperature range moving application and installation	-5 / +50 °C
Temperature range fixed application	-40 / +80 °C
Flame propagation	FT-2



Belden declares this product to be in compliance with the environmental regulations EU RoHS (Directive 2002/95/EC, 27 January 2003); this is valid for all material produced after the RoHS compliant date for this product.