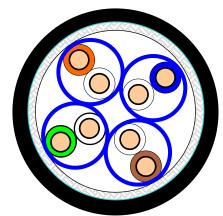


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# **STANDARDS**

- ISO/IEC 11801 Cat 7,
- EN 50173 − 1
- TIA/EIA-568-B.2 (May 2001).
- UL AWM 21292

# **CABLE CONSTRUCTION**



Conductor:

Material stranded PACW

Construction 7x0.16 mm (26 AWG)

Nom. Diameter 0.48 mm

Insulation:

Material Foam-skin PE

Diameter 1.05 mm +/- 0.05 mm

Nom wall thickness 0.30 mm

Screend Pair

Pair 2 twisted insulated conductors

Number of pairs 4, all twisted together Left hand lay.

Colour code pair 1 White & Blue
Colour code pair 2 White & Orange
Colour code pair 3 White & Green
Colour code pair 4 White & Brown

Foil-Screen each pair Aluminium-polyester, Alu-side out

Braided Screen:

Material tinned copper wires

Coverage >65%

Sheath:

Material PUR Flame-retardant and Halogen-free

Diameter 6.8 +/- 0.2 mm Wall-thickness 0.7 mm

Colour Black , Waterblue or Gray (like RAL7032)



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# **ELECTRICAL CHARACTERISTICS**

Low frequency and D.C.

D.C. resistance conductor < 145  $\Omega$ /km Resistance unbalance < 2 %

D.C. insulation resistance  $> 5000 \text{ M}\Omega.\text{km}$  Dielectric strength cond. - cond. (2 sec.) 2.5 kV D.C. Mutual capacitance < 56 nF/km Capacitance unbalance < 1600 pF/km

High frequency

High frequency

Velocity of propagation ≥ 0.7\*c

Skew @100MHz  $\leq$  40 ns/100m Propagation delay  $\leq$  534 + 36/Vf ns/100m

Mean characteristic impedance (Zcm)

@ 100 MHz  $100 \pm 5 \qquad \qquad \Omega$  Input impedance 1-600 MHz  $100 \pm 15 \qquad \qquad \text{ohm}$ 

Transfer Impedance (Z<sub>T</sub>)

@ 10 MHz < 5  $m\Omega/m$ 

Frequency	Insertion loss dB/100m (max)	NEXT (dB)	PSNEXT (dB)	ELFEXT (dB)	PS ELFEXT (dB)	Return Loss (dB)
1	2.7	80	77			
4	5.5	80	77	58	55	23
10	8.5	80	77	50	47	25
16	10.8	80	77	46	43	25
20	12.1	80	77	44	41	25
31.25	15.2	80	77	40	37	23.6
62.5	27.8	75.1	72.1	34	31	21.5
100	27.8	72.4	69.4	30	27	20.1
200	40.1	67.9	64.9	24	21	18
300	50	65.3	62.3	20	17	17.3
600	73.3	60.8	57.8	14	11	17.3

# **MECHANICAL CHARACTERISTICS**

Elongation at break conductor  $\geq 10 \%$ Elongation at break insulation  $\geq 100 \%$ Elongation at break sheath  $\geq 100 \%$ Tensile strength sheath  $\geq 15 \text{ Mpa}$ 



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## **ENVIRONMENTAL AND OVERALL CHARACTERISTICS**

Maximum operating voltage 450 V D.C. and 300 V A.C.

Maximum operating voltage UL AWM 30 V A.C.

Maximum continuous current per conductor (@25°C) 1.0 A rms

Halogenfree acc to IEC 60754-2

Oil resistant acc IEC 60811-2-1

Maximum pulling tension 80 N

 $\begin{array}{lll} \mbox{Minimum bending / setting \ radius} & 65 / 30 \ \mbox{mm} \\ \mbox{Temperature range during installation} & -15 / +60 \ ^{\circ}\mbox{C} \\ \mbox{Temperature range during operation} & -40 / +80 \ ^{\circ}\mbox{C} \\ \mbox{Temperature range storage} & -40 / +80 \ ^{\circ}\mbox{C} \\ \end{array}$ 

Flame resistance UL AWM Horizontal flametest

UL AWM Style 21292



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.