



Part Number: 7704NH

LonWorks Cable Paired Cable 300 V, +80 °C

Product Description

22 AWG, BC Conductors, Foamed Polyethylene Insulation, White LSZH Jacket, Overall Beldfoil Shield, 2 Pairs

Technical Specifications

Product Overview

Environmental Space:	Indoor - Euroclass B2ca
Suitable Applications:	Instrumentation and computer cable; For data transmission applications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
22	Solid	BC - Bare Copper	0.64 mm	2

Conductor Count:	4
Total Number of Pairs:	2
Conductor Size:	22 AWG

Insulation

Material	Nominal Diameter	Min. Wall Thickness
FPE - Foamed Polyethylene	1.35 mm	0.3 mm

Color Chart

Number	Color
Pair 1	White/Blue & Blue/White
Pair 2	Orange/White & White/Orange

Color Chart1, Table Note:	Ring marking applied
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Outer Shield Material

Type	Material	Coverage [%]	Drainwire Material	Drainwire Diameter	Drainwire AWG
Tape	Aluminum/Polyester	100 %	TC - Tinned Copper	0.51 mm	24

Note:	Aluminum inside
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Outer Jacket Material

Material	Color	Nominal Diameter	Diameter +/- Tolerance	Min. Wall Thickness
LSZH / FRNC	White (like RAL 9003)	6.5 mm	0.4 mm	0.5 mm

Construction and Dimensions

Cabling

Description
2 pairs twisted to cable core

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
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55 Ohm/km	17 Ohm/km
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Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Shield
40 pF/m	65 pF/m

Inductance

Nominal Pair Inductance
0.65 µH/m

Impedance

Frequency [MHz]	Nominal Characteristic Impedance
1 - 20	100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss	Nom. NEXT [dB]
0.772 MHz	1.8 dB/100m	
1 MHz	2 dB/100m	59 dB
4 MHz	3.6 dB/100m	50 dB
10 MHz	5.5 dB/100m	44 dB
16 MHz	7 dB/100m	41 dB
20 MHz	7.8 dB/100m	40 dB

Current

Element	Max. Recommended Current [A]
Conductor	2.5 A

Voltage

Voltage Rating [V]
300 V

Temperature Range

Operating Temp Range:	-15°C To +80°C
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Mechanical Characteristics

Bulk Cable Weight:	40.2 kg/km
Max Recommended Pulling Tension:	50 N
Min Bend Radius During Installation:	80 mm

Standards

CPR Euroclass:	B2ca-s1,d1,a1
Other Specification:	BS 7655 section 6.1 table 1, LTS 3

Applicable Environmental and Other Programs

EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01
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Flammability, LS0H, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-3-24
Amount of Halogen acc. to IEC 60754-1 & EN50267-1:	Zero

Part Number

Variants

Item #	Color
7704NH.001020	White
7704NH.00305	White
7704NH.00500	White

History

Revision Number:	6
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