



**Product:** [7704ELV](#)

Life Cycle Status: Capability

LonWorks, 2PR #22 Sol BC, PO ins, OS, LSNH Jkt, 300V, B2ca

## Product Description

LonWorks, 2 Pair AWG 22 Bare Copper - Solid, Polyolefin (PO, PE, PP) insulation, Overall Beldfoil® shielding, LSZH / FRNC jacket , 300V, CPR B2ca

## Technical Specifications

### Product Overview

Suitable Applications:	LonWorks, instrumentation, Low capacitance
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### 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

#### Insulation

Material	Nominal Diameter	Min. Wall Thickness
PE - Polyethylene (Foam)	1.35 mm	0.3 mm

#### Color Chart

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

Table Notes:	Ring marking applied
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#### Outer Shield

Type	Material	Coverage [%]	Drainwire Material	Drainwire Diameter	Drainwire AWG
Tape	Bi-Laminate (Alum+Poly)	100%	TC - Tinned Copper	0.51 mm	24

Table Notes:	Aluminum inside
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#### Outer Jacket

Material	Nominal Diameter	Diameter +/- Tolerance	Min. Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	6.5 mm	0.4 mm	0.5 mm

Material:	LSZH - Low Smoke Zero Halogen (Flame Retardant)
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## Construction and Dimensions

### Cabling

Description
2 pairs twisted to cable core

## Electrical Characteristics

### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR

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 $\mu$ H/m

#### Impedance

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

#### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. NEXT [dB]
0.772 MHz	
1 MHz	59 dB
4 MHz	50 dB
10 MHz	44 dB
16 MHz	41 dB
20 MHz	40 dB

#### Current

Element	Max. Recommended Current [A]
Conductor(s)	2.5 Amps per Conductor

#### Voltage

Voltage Rating [V]
300 V

### Temperature Range

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

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

### Standards

CPR Euroclass:	B2ca-s1,d1,a1
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### Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass B2ca
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### Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
IEC 60754-1 - Halogen Amount:	Zero

### Product Notes

Notes:	This is a preliminary Technical Design Specification (TDS). The minimum business quantity to offer is 3km for the first order. This product will have White as standard color and 305mt or 500mt as standard put-ups. Additional options for colors and put-ups are available on special request. The estimated production lead time for the first order will be similar to the production lead time of 7704ELW. Please liaise with your Belden representative for confirmation.
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### History

Update and Revision:	Revision Number: 0.36 Revision Date: 06-19-2024
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