



**Product:** [8772ELW](#) 

Life Cycle Status: Capability

Electronic, 3C #20 Str TC, PO ins, OS, LSNH Jkt 300V, Cca

## Product Description

Electronic, 3 Conductor AWG 20 Tinned Copper - Stranded, Polyolefin (PO, PE, PP) insulation, Foil(s) or Copper Tape(s) shielding, LSZH / FRNC jacket , 300V, Cca

## Technical Specifications

### Product Overview

Suitable Applications:	Instrumentation and computer cable; For data transmission applications
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### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	No. of Conductors
20	7x28	TC - Tinned Copper	3

Conductor Count:	3
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#### Insulation

Material	Nominal Diameter	Diameter +/- Tolerance	Nominal Wall Thickness
PE - Polyethylene	1.78 mm	0.05 mm	0.017 in

#### Color Chart

Number	Color
Wire 1	Black
Wire 2	Red
Wire 3	Clear

#### Outer Shield

Type	Material	Material Trade Name	Coverage [%]	Thickness of Foil	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Bi-Laminate (Alum+Poly)	Beldfoil® (Z-Fold®)	100%	9 / 12 µm	TC - Tinned Copper	AWG20/7	7x28

#### Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
LSZH - Low Smoke Zero Halogen (Flame Retardant)	5.65 mm	0.9 mm

## Construction and Dimensions

#### Cabling

Description	Twists
3 wires twisted to cable core	6 twist/ft

## Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
34.5 Ohm/km	30.8 Ohm/km

#### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield
88.6 pF/m	167.3 pF/m

#### Impedance

Nominal Characteristic Impedance
69 Ohm

#### Delay

Nominal Velocity of Propagation (VP) [%]
66%

#### Current

Element	Max. Recommended Current [A]
Conductor(s)	4 A

#### Voltage

UL Voltage Rating	Voltage Rating [V]
300 V RMS	300 V

#### Temperature Range

Installation Temperature Range:	-15°C To +80°C
Storage Temperature Range:	-30°C To +80°C
Operating Temperature Range:	-30°C To +80°C
Operating Temp Range (Fixed Install):	-30°C To +80°C

#### Mechanical Characteristics

Oil Resistance:	IEC 60811-404
Max. Pull Tension:	180 N
Min. Bend Radius During Installation:	56.5 mm
Min. Bend Radius/Minor Axis:	2 in

#### Standards

CPR Euroclass:	Cca-s1,d1,a1
GENELEC Compliance:	EN 50290-2-20

#### Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Cca
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

#### Suitability

Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes

#### Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
IEC 60754-1 - Halogen Amount:	Zero
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 - Smoke Density Min. Transmittance:	60%

#### Plenum/Non-Plenum

Plenum (Y/N):	No
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#### Product Notes

Notes:

This is a preliminary Technical Design Specification (TDS) which is subject to modification throughout the prototyping phase. The minimum business quantity to offer is 6km for the first order. This product will have Chrome 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 8772NH plus extra 6-7 weeks. Please liaise with your Belden representative for confirmation.

## History

Update and Revision:

Revision Number: 0.42 Revision Date: 06-19-2024

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