



**Product:** [NH50105UFL](#)

DataTuff™ Industrial Ethernet CAT5e 4x2x23AWG/1 U/FTP Fire Resistant (PH120)

### Product Description

DataTuff™ Industrial Ethernet CAT5e 4x2x23AWG/1 U/FTP Fire Resistant (PH120)

### Technical Specifications

#### Product Overview

Suitable Applications:	This Category 5e Cable is a cable standard for Gigabit Ethernet, capable to continue transmitting data even when being directly attacked by fire.
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#### Construction Details

##### Conductor

Size	Stranding	Stranding Class	Material	No. of Pairs	No. of Elements
23 AWG	Solid	Class 1	BC - Bare Copper	4	8

##### Insulation

Material	Nom. Insulation Diameter	Color Code	Notes
PE - Polyethylene	1.58 mm (0.0622 in)	Blue & White with Blue Strips, Orange & White with Orange Strips, Green & White with Green Strips, Brown & White with Brown Strips	Fire Protection Barrier: Mica glass Tape(MGT), Twist Direction = S, 25% AL-mylar tape(Overlapping)

##### Inner Shield

Shield Type	Material	Drainwire Type	Notes
Tape	Bi-Laminate (Alum+Poly)	26 AWG (Solid) TC	All 4 Pairs laid up together & binded by Fire Protection Barrier: Mica Glass Tape(MGT)

##### Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	10.80 mm (0.4252 in)

#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance	Nom. Characteristic Impedance
73.2 Ohm/km (22.3 Ohm/1000ft)	1,600 pF/m	100 Ohm

##### Delay

Max. Delay Skew
45 ns/100m
536 ns/100m

##### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. RL (Return Loss) [dB]
1	2.04	65.3	62.3	20
4	4.05	56.3	53.3	23
8	5.77	51.8	48.8	24.5
10	6.47	50.3	47.3	25
16	8.25	47.2	44.2	25
20	9.27	45.8	42.8	25

25	10.42	44.3	41.3	24.3
30	11.47	43.1	40.1	23.8
31.25	11.72	42.9	39.9	23.6
62.5	16.99	38.4	35.4	21.5
100	21.98	35.3	32.3	20.1

## Mechanical Characteristics

### Temperature

Operating
-40°C to + 80°C

## Standards and Compliance

Environmental Suitability:	UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-22, IEC 60331-23, BS EN 50200 PH120
AWM Compliance:	AWM 21130
Data Category:	Category 5e
TIA/EIA Compliance:	EIA/TIA 568
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = 0.5 %, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
Other Standard Compliance(s):	BS EN 50289-4-16

## History

Update and Revision:	Revision Number: 0.51 Revision Date: 08-13-2024
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	EAN
NH50105UFL-A305	Black	Reel	305 m	8719605213273

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