



**Product:** [NH50105SFR](#) 

DataTuff™ Industrial Ethernet CAT5e 4x2x23AWG/1 S/FTP Fire Resistant, Anti-rodent

## Product Description

DataTuff™ Industrial Ethernet CAT5e 4x2x23AWG/1 S/FTP Fire Resistant, Anti-rodent

## 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	Material	No. of Pairs
22 AWG	Solid	BC - Bare Copper	4

#### Insulation

Material	Nom. Insulation Diameter	Color Code	Notes
PE - Polyethylene	1.17 mm (0.0461 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)

#### Inner Shield

Element	Shield Type	Material	Coverage	Drainwire Type	Notes
Individual Pair	Tape	Bi-Laminate (Alum+Poly)		26 AWG (Solid) TC	All four pairs laid up together, bound by a fire-protection barrier of mica-glass tape (MGT)
Overall	Braid	Tinned Copper (TC)	60%		Water-blocking tape is wrapped over the braid shielding

#### Outer Jacket

Material	
LSZH - Low Smoke Zero Halogen (Flame Retardant)	
Overall Cable Diameter (Nominal):	11.9 mm (0.469 in)

### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Nom. Characteristic Impedance
54.3 Ohm/km @ 20 Deg. C	100 Ohm

#### Delay

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

#### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
4	4.1 dB/70m	56.3	63.3	51.8	48.8	23.0
10	6.5 dB/70m	50.3	57.3	43.8	40.8	25.0
20	9.3 dB/70m	45.8	52.8	37.8	34.8	25.0
25	10.4dB/70m	44.3	51.3	35.8	32.8	24.3
31.25	11.7 dB/70m	42.9	49.9	33.9	30.9	23.6

62.5	17.0 dB/70m	38.4	45.4	27.9	24.9	21.5
100	22.0 dB/70m	35.3	42.3	23.8	20.8	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, EN 50200 PH120
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	IEC 61156-5
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, IEC 61034-2 - Smoke Density Min. Transmittance = 60%
Other Standard Compliance(s):	BS EN 50289-4-16, BS6387 CWZ

## History

Update and Revision:	Revision Number: 0.17 Revision Date: 02-20-2026
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