



Product: [NH50106AUFL](#) 

DataTuff™ Industrial Ethernet CAT6A 4x2x23AWG/1 U/FTP Fire Resistant

Product Description

DataTuff™ Industrial Ethernet CAT6A 4x2x23AWG/1 U/FTP Fire Resistant

Technical Specifications

Product Overview

Suitable Applications:	This Category 6A Cable is a cable standard for Gigabit Ethernet, capable to continue transmitting data even when being directly attacked by fire.
------------------------	---

Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs
Conductor(s)	23 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), 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
LSZH - Low Smoke Zero Halogen (Flame Retardant)

Overall Cable Diameter (Nominal):	10.80 mm (0.4252 in)
-----------------------------------	----------------------

Electrical Characteristics

Electricals

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

Delay

Max. Delay Skew
45 ns/70m

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	3.8 dB/70m	66.3	63.3	56.0	53.0	23.0
10	5.9 dB/70m	60.3	57.3	48.0	45.0	25.0
20	8.4 dB/70m	55.8	52.8	42.0	39.0	25.0
25	9.4 dB/70m	54.3	51.3	40.0	37.0	24.3
31.25	10.5 dB/70m	52.9	49.9	38.1	35.1	23.6
62.5	15.0 dB/70m	48.4	45.4	32.1	29.1	21.5

100	19.1 dB/70m	45.3	42.3	28.0	25.0	20.1
250	31.1 dB/70m	39.3	36.3	20.0	17.0	17.3
300	34.3	38.1	35.1	18.5	15.5	17.3
500	45.3	34.8	31.8	14.0	11.0	17.3

Voltage

Voltage Rating
60 V

Mechanical Characteristics

Temperature

Operating
-40°C to + 60°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
AWM Compliance:	AWM 21130
CEC / C(UL) Compliance:	.
Data Category:	Category 6A
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):	BS6387 CWZ

History

Update and Revision:	Revision Number: 0.6 Revision Date: 08-23-2026
----------------------	--

© 2026 Belden, Inc
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.