



Product: [50106FLB](#)

## SWB Armored Industrial Category 6 F/UTP LSZH Cable

### Product Description

Industrial Ethernet CAT6,F/UTP, 4x2x23AWG, Solid Bare Copper Conductors, Polyolefin insulation, Overall shield, LSZH Inner Jacket, SWB Armored, LSZH Outer Jacket, UV&Oil Resistance cable

### Technical Specifications

#### Product Overview

Suitable Applications:	Industrial Ethernet cables are used for interconnecting Industrial Ethernet Switches, IP controllers, media convertors, distributed control system, programmable logic controller and transmitting industrial protocol data signals. These cables are suitable for transmitting 1000BASE-TX Gigabit Ethernet, 100BASE-T Ethernet, 100BaseVG ANYLAN, 155ATM, 622ATM, RS-422, 250MHz Category 6, EtherCAT. These are highly durable & ruggedized cables for both indoor and outdoor use meeting IEC 60332-3-24 and IEC 60754-1 & 2
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#### Construction Details

##### Conductor

Size	Stranding	Material	No. of Pairs
23	Solid	BC - Bare Copper	4

##### Insulation

Material	Color Code
PO - Polyolefin	Blue & White with Blue Stripe, Orange & White with Orange stripe, Green & White with Green Stripe, Brown & white with Brown Stripe

##### Inner Shield

Drainwire Type
26 AWG (Solid) TC

##### Inner Jacket

Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)

##### Outer Shield

Shield Type	Material
Tape	Bi-Laminate (Alum+Poly)

##### Armor

Armor Type & Material
SWB - Steel Wire Braid Armor

##### Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	10.5 mm (0.413 in)

#### Electrical Characteristics

##### Electricals

Max. Conductor DCR	Max. Capacitance Unbalance	Nom. Characteristic Impedance
93.8 Ohm/km (28.6 Ohm/1000ft)	330 pF/100m	100 Ohm

##### Delay

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

### High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	2.0	74.3	72.3	67.8	64.8	20.0
4	3.8	65.3	63.3	55.8	52.8	23.0
8	5.3	60.8	58.8	49.7	46.7	24.5
10	6.0	59.3	57.3	47.8	44.8	25.0
16	7.6	56.2	54.2	43.7	40.7	25.0
20	8.5	54.8	52.8	41.8	38.8	25.0
25	9.5	53.3	51.3	39.8	36.8	24.3
31.25	10.7	51.9	49.9	37.9	34.9	23.6
62.5	15.4	47.4	45.4	31.9	28.9	21.5
100	19.8	44.3	42.3	27.8	24.8	20.1
155	25.2	41.4	39.4	24.0	21.0	18.8
200	29.0	39.8	37.8	21.8	18.8	18.0
250	32.8	38.3	36.3	19.8	16.8	17.3

### Voltage

UL Voltage Rating
300 V

## Mechanical Characteristics

### Temperature

Operating
-20°C To +75°C

### Bend Radius

Installation Min.
84.0 mm (3.31 in)

Max. Pull Tension:	110 N (25 lbf)
Bulk Cable Weight:	141 kg/km (94.7 lbs/1000ft)

## Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-3-24
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	IEC 61156-5/ISO/IEC 11801 Cat 6, IEC 61034-2 - Smoke Density Min Transmittance = $\geq$ 60% Light Transmittance
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = $\leq$ 5 mg/g, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 $\mu$ S/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

## Product Notes

Notes:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
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## History

Update and Revision:	Revision Number: 0.52 Revision Date: 02-18-2025
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length
50106FLB 010305M	Black	Reel	305 m
50106FLB 010500M	Black	Reel	500 m
50106FLB 006305M	Blue	Reel	305 m
50106FLB 006500M	Blue	Reel	500 m

50106FLB 008305M	Gray	Reel	305 m
50106FLB 008500M	Gray	Reel	500 m

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