

2139A Multi-Conductor - Category 5e Indoor/Outdoor OSP/CM-LS LSZH 25pr Corrugated Shield Cable



For more Information
please call

1-800-Belden1



General Description:

CAT5e (100 MHz), 25 Pair, U/UTP-Unshielded, Indoor/Outdoor OSP/CM-LS, Premise Backbone Cable, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Gel-Filled, Polyolefin Inner Jacket, Corrugated Aluminum Tape, Ripcord, UV-Resistant Flame Retardant Haloarrest® LSZH Outer Jacket

Usage (Overall)

Suitable Applications: Indoor/Outdoor, Premise Backbone Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, OSP, Outside Plant

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
25	24	Solid	BC - Bare Copper

Total Number of Conductors: 50

Insulation

Insulation Material:

Insulation Material
PO - Polyolefin

Inner Jacket

Inner Jacket Material:

Inner Jacket Trade Name	Inner Jacket Material	Nom Wall (mm)	Nom. Dia. (mm)
Polyolefin	Medium Density Polyethylene	1.016	12.954

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material	Nom. Wall Thickness (mm)
Polyolefin	Flame Retardant Polyethylene	1.524

Outer Jacket Diameter:

Nom. Dia. (mm)
18.542

Outer Jacket Ripcord: Yes

Outer Jacket over Armor (y/n): Yes

Outer Jacket over Armor

Outer Jacket Material over Armor (y/n): Yes

Outer Jacket Material Over Armor:

OJ Over Armor Trade Name	OJ Over Armor Material	Nom. Wall (mm)	Dia. (mm)
Corrugated Aluminum Tape	Aluminum	0.203	15.494

Outer Jacket Wall Thickness Over Armor: 0.060

Armor

Armor Type: Corrugated Tape

Armor Material: Aluminum

METRIC MEASUREMENT VERSION

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Armor Thickness: 0.008

Diameter over Armor: 0.610

Overall Cable

Overall Cabling Fillers: 2 x Polyolefin ROD fillers - inner layer.

Overall Nominal Diameter: 18.542 mm

Pair

Pair Color Code Chart:

Number	Color
1	Black & Blue
2	Black & Orange
3	Black & Green
4	Black & Brown
5	Black & Gray
6	Yellow & Blue
7	Yellow & Orange
8	Yellow & Green
9	Yellow & Brown
10	Yellow & Gray
11	Purple & Blue
12	Purple & Orange
13	Purple & Green
14	Purple & Brown
15	Purple & Gray
16	White & Orange
17	White & Green
18	White & Brown
19	White & Gray
20	Red & Blue
21	Red & Orange
22	Red & Green
23	Red & Brown
24	Red & Gray
25	White & Blue

Mechanical Characteristics (Overall)

Storage Temperature Range: -40°C To +75°C

Installation Temperature Range: -20°C To +60°C

Operating Temperature Range: -20°C To +60°C

UL Temperature Rating: 60C

Installation Temperature Rating: 60C

Bulk Cable Weight: 494.082 Kg/Km

Max. Recommended Pulling Tension: 733.953 N

Min. Bend Radius/Minor Axis: 190.500 mm

Min. Bend/Installation: 368.300 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CM-LS

CEC/C(UL) Specification: CM-LS

EU Directive 2011/65/EU (ROHS II): Yes

IEEE Specification: POE per IEEE 802.3af

EU Directive 2000/53/EC (ELV): Yes

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EU Directive 2002/95/EC (RoHS):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 5e - TIA 568.C.2, ISO/IEC 11801:2011 Amendment 2.2 Class D
ANSI Specification:	ANSI/ICEA S-56-434 Outdoor Use, ANSI/ICEA S-99-689 Broadband Outdoor Use
Other Specification:	NEMA WC-63.1 Category 5e

Flame Test

UL Flame Test:	UL1581 Vertical Tray
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Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Aerial:	Yes - When supported by messenger wire
Suitability - Burial:	Yes
Suitability - Hazardous Locations:	No
Sunlight Resistance:	Yes
Non-halogenated:	No

Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)

45.934

Maximum Capacitance Unbalance (pF/100 m): 330

Nominal Velocity of Propagation:

VP (%)

68.000

Maximum Delay:

Delay (ns/100 m)

538 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

45

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

9.38

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

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Electrical Characteristics-Premise (Overall)

Premise Cable Electricals:

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Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. PSNEXT (dB)	Min. SRL (dB)	Fitted Imp. (Ohms)
.772	1.800	64	19.4	100 ± 15%
1	2.000	62.3	20	100 ± 15%
4	4.100	53.3	23.0	100 ± 15%
8	5.800	48.8	24.5	100 ± 15%
10	6.500	47.3	25	100 ± 15%
16	8.200	44.3	25	100 ± 15%
20	9.300	42.8	25	100 ± 15%
25	10.400	41.3	24.3	100 ± 15%
31.25	11.700	39.9	23.6	100 ± 15%
62.5	17.000	35.4	21.5	100 ± 15%
155	28.100	29.4	18.8	100 ± 15%
100	22.000	32.3	20.1	100 ± 15%
200	32.400	27.8	18.0	100 ± 15%

Premise Cable Electrical Table 2:

Freq. (MHz)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
0.772	66	63.0
1	63.8	60.8
4	51.8	48.8
8	45.7	42.7
10	43.8	40.8
16	39.7	36.7
20	37.8	34.8
25	35.8	32.8
31.25	33.9	30.9
62.5	27.9	24.9
100	23.8	20.8
155	20.0	17.0
200	17.8	14.8

Notes (Overall)

Notes: Third party verified to TIA/EIA-568-C.2, Category 5e, Print Includes Descending Footage / Meter Markings, -20C Cold bend per UL 1581, Water Penetration per GR 421-CORE para. 4.3.5.1, and ANSI/ICEA S-107-704 Para. 8.2.1

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
2139A 0101000	1,000 FT	350.000 LB	BLACK		CAT5E 25PR CAT OSP-CM REEL

Revision Number: 0 Revision Date: 07-31-2017

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