Belden



Product: OSP6U

Category 6 OSP Cable, 4 Pair, U/UTP, Gel Filled

Product Description

Category 6, OSP Rated, 4-Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Gel-Filled, Polyethylene Jacket

Technical Specifications

Product Overview

Suitable Applications:	OSP-Outside, Premise Horizontal Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE, Noisy Environments

Construction Details

Conductor

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

Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Waterblocking:	Gel Filled

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Center Member (Patented X-Spline®)	PE - Polyethylene	0.251 in (6.38 mm)	Yes

Overall Cable Diameter (Nominal):	0.251 in (6.38 mm)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	160 pF/100m

Delay

Frequency	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	45 ns/100m	65%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted) [Ohm]	Max./Min. Fitted Impedance [Ohm]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.0	74.3	72.3	70.3	67.8	64.8	20.0	100 ± 15	100 ± 15	40.0	35.0
4	3.8	65.3	63.3	59.5	55.7	52.7	23.0	100 ± 15	100 ± 15	40.0	23.0
8	5.3	60.8	58.8	53.4	49.7	46.7	24.5	100 ± 15	100 ± 15	40.0	16.9
10	6.0	59.3	57.3	51.4	47.8	44.8	25.0	100 ± 15	100 ± 15	40.0	15.0
16	7.6	56.3	54.3	46.7	43.7	40.7	25.0	100 ± 15	100 ± 15	38.0	10.9
20	8.5	54.8	52.8	44.3	41.7	38.7	25.0	100 ± 15	100 ± 15	37.0	9.0
25	9.5	53.3	51.3	41.8	39.8	36.8	24.3	100 ± 15	100 ± 15	36.0	7.0
31.25	10.7	51.9	49.9	39.2	37.9	34.9	23.6	100 ± 15	100 ± 15	35.1	5.1

62.5	15.4	47.4	45.4	30.0	31.8	28.8	21.5	100 ± 15	100 ± 15	32.0	
100	19.8	44.3	42.3	22.5	27.8	24.8	20.1	100 ± 15	100 ± 15	30.0	
155	25.2	41.5	39.5	14.3	23.9	20.9	18.8	100 ± 22	100 ± 15	28.1	
200	29.0	39.8	37.8	8.8	21.7	18.7	18.0	100 ± 22	100 ± 15	27.0	
250	32.8	38.3	36.3	3.5	19.8	16.8	17.3	100 ± 32	100 ± 15	26.0	

Voltage

Voltage Rating
300 V

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-40°C To +75°C	-40°C To +60°C	-40°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
1.0 in (25 mm)	2.5 in (64 mm)

Max. Pull Tension:	28 lbs (13 kg)
Bulk Cable Weight:	25 lbs/1000ft (37 kg/km)

Standards and Compliance

Environmental Suitability:	Outdoor, Outdoor, Sunlight Resistance, Aerial - When supported by messenger wire
Sustainability:	Product Lens™
CPR Compliance:	CPR Euroclass: Fca; CPR UKCA Class: Fca
ICEA Compliance:	S-116-732, S-56-434, S-99-689, S-100-685
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3
NEMA Compliance:	ANSI/NEMA WC-66
Data Category:	Category 6
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 6
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
CENELEC Compliance:	Segregation class according EN50174-2 = a
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Cable not guaranteed to meet TIA 568.2 specification for delay above lengths of 90m. Print Includes Descending Footage/Meter Markings from Max. Put-Up Length to 0. Fully Water Blocked. Suitable for burial or use in outdoor wet locations. Not recommended for Direct Burial applications without additional crush and impact protection. Additional crush and impact protection would include cable armoring, installation in conduit or installation with over top barriers per Belden Technical Bulletin T/8-6. Sunlight Resistant (Black Jacket Only). Belden recommends using an entrance demarcation point when transitioning inside buildings with gel-filled OSP cables due to the cable design containing gel specific for wet outdoor environments. The suggested transition point is the REVConnect core coupler, part number RVACPKUBK-S1.

History

Update and Revision:	Revision Number: 0.713 Revision Date: 08-17-2026

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
OSP6U 0101000	Black	Reel	1,000 ft	612825295235

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