



**Product:** [10GXE02P](#) 

10GX Category 6A Enhanced Cable, 4 Pair, S/FTP, Black PE Outdoor, UV

## Product Description

Category 6A Enhanced Premise Horizontal Cable (625MHz), 4-Pair, 23 AWG Solid Bare Copper conductors, S/FTP, Foam Polyethylene insulation, each pair with Beldfoil® shield, tinned copper braid shield (30%), Black PE jacket, UV resistant

## Technical Specifications

### Product Overview

Suitable Applications:	Horizontal and building backbone cable; Support current and future Category 6A and 6 applications, such as: 10GBase-T (10 Gigabit Ethernet), 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM
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### Construction Details

#### Conductor

Element	Size	Stranding	Material	No. of Pairs
Individual Shielded Pair	23 AWG	Solid	BC - Bare Copper	4

#### Insulation

Element	Material	Nom. Insulation Diameter	Color Code
Individual Shielded Pair	PE - Polyethylene (Foam)	1.32 mm (0.0520 in)	White & Blue, White & Orange, White & Green, White & Brown

#### Cable Core

Description
4 pairs twisted together

#### Inner Shield

Element	Shield Type	Material	Coverage
Individual Shielded Pair	Tape	Bi-Laminate (Alum+Poly)	100%

Inner Shield Table Notes: Aluminum facing outside

#### Outer Shield

Shield Type	Material	Coverage
Braid	Tinned Copper (TC)	30%

#### Outer Jacket

Material	Nom. Diameter	Ripcord
PE - Polyethylene	7.5 mm (0.30 in)	Yes

Overall Cable Diameter (Nominal): 7.6 mm (0.30 in)

### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance
95 Ohm/km (29 Ohm/1000ft)	56 pF/m (17 pF/ft)	160 pF/100m	100 Ohm

#### Delay

Max. Delay Skew	Nom. Velocity of Prop.
45 ns/100m	77%

## High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1	75.3	72.3	73.2	70.2	68	65	20	67	67	40	35
4	3.8	66.3	63.3	62.5	59.5	56	53	23	67	66.2	34	23
10	5.9	60.3	57.3	54.4	51.4	48	45	25	67	58.2	30	15
16	7.5	57.2	54.2	49.8	46.8	43.9	40.9	25	67	54.1	28	10.9
31.2	10.5	52.9	49.9	42.4	39.4	38.1	35.1	23.6	67	48.3	25.1	5.1
62.5	15	48.4	45.4	33.4	30.4	32.1	29.1	21.5	65.6	42.3	22	
100	19.1	45.3	42.3	26.2	23.2	28	25	20.1	62.5	38.2	20	
125	21.5	43.8	40.8	22.3	19.3	26.1	23.1	19.4	61	36.3	19	
200	27.6	40.8	37.8	13.2	10.2	22	19	18	58	32.2	17	
250	31.1	39.3	36.3	8.3	5.3	20	17	17.3	56.5	30.2	16	
300	34.3	38.1	35.1	3.9	0.9	18.5	15.5	17.3	55.3	28.7		
500	45.3	34.8	31.8	-10.4	-13.4	14	11	17.3	52	24.2		
625	51.2	33.4	30.4	-17.8	-20.8	12.1	9.1	17.3	50.6	22.3		

High Frequency Table Notes:

Limits below 4 MHz and at 625 MHz are for information only. Reference standard: IEC 61156-5

## Transfer Impedance

Frequency	Max. Transfer Impedance
1 MHz	Max. 50 mOhm/m
10 Mhz	Max. 100 mOhm/m
30 Mhz	Max. 200 mOhm/m
100 Mhz	Max. 1000 mOhm/m

Transfer Impedance Class: Grade 2

Screening Class: Type Ib

Screening Table Notes: Coupling Attenuation

## Voltage

### Voltage Rating

72 V DC

## Mechanical Characteristics

### Temperature

Operating	Installation
-30°C to +60°C	0°C To +60°C

### Bend Radius

Stationary Min.	Installation Min.
29 mm (1.1 in)	58 mm (2.3 in)

Max. Pull Tension: 110 N (25 lbf)

Bulk Cable Weight: 47 kg/km (32 lbs/1000ft)

## Standards and Compliance

Environmental Suitability:	Outdoor, Sunlight Resistance - Black only
IEEE Compliance:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
TIA/EIA Compliance:	ANSI/TIA 568.2-D
ISO/IEC Compliance:	ISO/IEC 11801-1
CENELEC Compliance:	EN 50173-1, Segregation class according EN50174-2 = d
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3, IEC 61034-2 - Smoke Density Min. Transmittance = 60%
European Directive Compliance:	EU CE Mark
UK Regulation Compliance:	UKCA Mark

## Product Notes

Notes: Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.

## History

Update and Revision:	Revision Number: 0.17 Revision Date: 03-24-2026
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