

## AX104501 Modular Connectors - 10GX KeyConnect Shielded RJ45 Coupler



For more Information  
please call

1-800-Belden1



### General Description:

10GX Shielded RJ45 Coupler, Category 6A, KeyConnect, Gray

### Usage (Overall)

**Suitable Applications:** IBDN Shielded System 10GX, TIA Category 6A, 10GBASE-T, Support Power over Ethernet (up to 100W), Cisco UPOE (up to 60W) and Power over HDBase-T (up to 100W)

**Related Parts:** KeyConnect Shielded Modular Patch Panel, 10GX Shielded Patch Cord, 10GX Shielded Pre-Terminated Cable Assembly

### Multi Conductor

#### Physical Characteristics

##### Overall Cabling

##### Overall Diameter

### Physical Characteristics (Connectivity)

#### Dimensions

##### Dimensions:

Height (mm)	Width (mm)	Depth (mm)
22.581	16.205	38.506

#### Materials

##### Materials:

Description	Type	Material
Front Connection	Flexible PCB	Flexible PCB with 50u inch Gold over Nickel
Rear Connection	Flexible PCB	Flexible PCB with 50u inch Gold over Nickel
Connector Body		Metal

#### Color

**Color:** Gray

#### Wiring Scheme

**Wiring Scheme:** T568A/B-T568A/B

#### Weight

**Weight:** 0.022 kg

#### Packaging

**Packaging:** Individually packaged in a clear plastic bag.

### Mechanical Characteristics (Connectivity)

**Footprint/Type:** KeyConnect

**Plug / Jack Compatibility:** RJ45

#### Termination Interface:

Termination	Connection	Durabilities
Front	Mated Connection	750 cycles
Rear	Mated Connection	750 cycles

**Connector/Hardware Retention:** 88.964 N

**Storage Temperature Range:** -40°C To +70°C

## AX104501 Modular Connectors - 10GX KeyConnect Shielded RJ45 Coupler

Installation Temperature Range: -10°C To +60°C

Operating Temperature Range: -10°C To +60°C

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

IEEE Specification: IEEE 802.3at Type 1 and Type 2 (up to 30W), IEEE 802.3bt Type 3 and Type 4 (up to 100W)

Other Standards: FCC Part 68, Subpart F, IEC 60603-7

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 08/01/2008

MII Order #39 (China RoHS): EUP 50

Telecommunications Standards: TIA 568.2-D, Category 6A - ISO/IEC 11801-1

Safety Listing: c(UL)us Listed

#### Suitability

Suitability - Indoor: Yes

#### Plenum/Non-Plenum

### Transmission Characteristics (Connectivity)

Mated Connection Table 1:

Frequency (MHz)	Max. Insertion Loss TIA* (dB)	Max. Insertion Loss Belden** (dB)	Min. NEXT TIA* (dB)	Min. NEXT Belden** (dB)	Min. FEXT TIA* (dB)	Min. FEXT Belden** (dB)
1.000	0.100	0.100	75.000	75.000	75.000	75.000
4.000	0.100	0.100	75.000	75.000	71.100	75.000
8.000	0.100	0.100	75.000	75.000	65.000	69.000
10.000	0.100	0.100	74.000	75.000	63.100	67.100
16.000	0.100	0.100	69.900	70.920	59.000	63.000
20.000	0.100	0.100	68.000	68.980	57.100	61.100
25.000	0.100	0.100	66.000	67.040	55.100	59.100
31.250	0.110	0.110	64.100	65.100	53.200	57.200
62.500	0.160	0.160	58.100	59.080	47.200	51.200
100.000	0.200	0.200	54.000	55.000	43.100	47.100
200.000	0.280	0.280	48.000	48.980	37.100	41.100
250.000	0.320	0.320	46.000	47.040	35.100	39.100
300.000	0.350	0.350	42.900	43.870	33.600	37.600
400.000	0.400	0.400	37.900	38.880	31.100	35.100
500.000	0.450	0.450	34.000	35.000	29.100	33.100
625.000		0.500		31.120		31.200

Mated Connection Table - Footnote:

\* TIA/EIA-568.2-D Category 6A \*\* Worst-case performance for a 10GX mated connection using 10GX modular plugs on both sides

Mated Connection Table 2:

Frequency (MHz)	Min. Return Loss TIA* (dB)	Min. Return Loss Belden** (dB)	Min. PSANEXT TIA* (dB)	Min. PSANEXT Belden** (dB)	Min. PSAACRF TIA* (dB)	Min. PSAACRF Belden** (dB)	Min. Balanced TCL TIA* (dB)	Min. Balanced TCL Belden** (dB)
1.000	30.000	30.000	70.500	72.000	67.000	72.000	40.000	45.000
4.000	30.000	30.000	70.500	72.000	67.000	72.000	40.000	45.000
8.000	30.000	30.000	70.500	72.000	67.000	72.000	40.000	45.000
10.000	30.000	30.000	70.500	72.000	67.000	72.000	40.000	45.000
16.000	30.000	30.000	70.500	72.000	67.000	72.000	40.000	45.000
20.000	30.000	30.000	70.500	72.000	67.000	72.000	40.000	45.000
25.000	30.000	30.000	70.500	72.000	67.000	72.000	40.000	45.000
31.250	30.000	30.000	70.500	72.000	67.000	72.000	38.100	45.000
62.500	30.000	30.000	70.500	72.000	67.000	72.000	32.100	42.100
100.000	28.000	28.000	70.500	72.000	67.000	72.000	28.000	38.000
200.000	22.000	22.000	64.500	66.000	61.000	66.000	22.000	32.000
250.000	20.000	20.000	62.500	64.000	59.000	64.000	20.000	30.000

## METRIC MEASUREMENT VERSION

### AX104501 Modular Connectors - 10GX KeyConnect Shielded RJ45 Coupler

300.000	18.500	18.500	61.000	62.500	57.500	62.500	18.500	28.500
400.000	16.000	16.000	58.500	60.000	55.000	60.000	16.000	26.000
500.000	14.000	14.000	56.500	58.000	53.000	58.000	14.000	24.000
625.000		12.100		56.100		56.100		22.100

**Dielectric Strength:** 1,000 V RMS @ 60 Hz for 1 minute

**Current Rating:** 1.500 A

**Insulation Resistance:** 500 M-Ohm Minimum

**Max. Contact Resistance:** 20 m-Ohm

#### Notes (Overall)

##### Product Family

#### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
AX104501	1 EA	0.062 LB			10GX SHIELDED KEYCONNECT RJ45

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