

## Industrial Ethernet Cable Solutions

**Be Certain with Belden—  
Proven to be the Best  
Choice for Industrial Ethernet  
Network Applications**



Featured Brand

**BELDEN**

Belden offers a wide range of high quality, high reliability DataTuff® Industrial Ethernet cables.

Be Certain with Belden

# BELDEN

## Nine Tests Prove Belden is the Best Choice for Industrial Ethernet Network Application!

Belden has done extensive testing to compare both the physical and electrical performance of commercial off-the-shelf (COTS) cables versus industrial cables. The results of each test clearly indicate why a commercial-grade cable is never suitable for the wide variety

of extreme conditions that can be at play in an industrial environment.

To conduct these tests, Belden used their state-of-the-art test equipment and proprietary test software. It's important to note that all the cables in this study initially tested as fully compliant to

the TIA/EIA Category 5e standards — i.e., they were validated to be “good” when the test began.

For more on the specific results of these tests, please request a copy of our Industrial Ethernet User Guide or download a copy at [www.belden.com](http://www.belden.com)



Be Certain With Belden.





## Belden DataTuff Industrial Ethernet Cables Offer Peak Network Efficiency and Reliability

### DataTuff Cable Selling Points:

#### Breadth of line: Category 5e, Category 6 and Enhanced Category 6 cables

- Most cables utilize Bonded-Pair technology
- Unshielded or shielded cables
- Solid or stranded conductors
- Plenum or non-plenum
- Polyolefin or FEP insulation
- PVC, Polyethylene, FEP, and TPE jackets
- Heavy, Upjacketed, and Aluminum Armored
- Halogen-free and Low Smoke Zero Halogen constructions
- Versions suitable for burial or outdoor use, gasoline resistance, high and low temperatures

#### Field-Proven Performance in Many of These Conditions:

- Oil, sunlight and gasoline
- Temperature variations
- Abrasion and crushing
- Flexing
- Presence of EMI/RFI (electromagnetic interference or radio frequency interference)
- Weldsplatter resistance

#### Approvals

- RoHS approved
- Select cables are EtherNet/IP or MSHA compliant

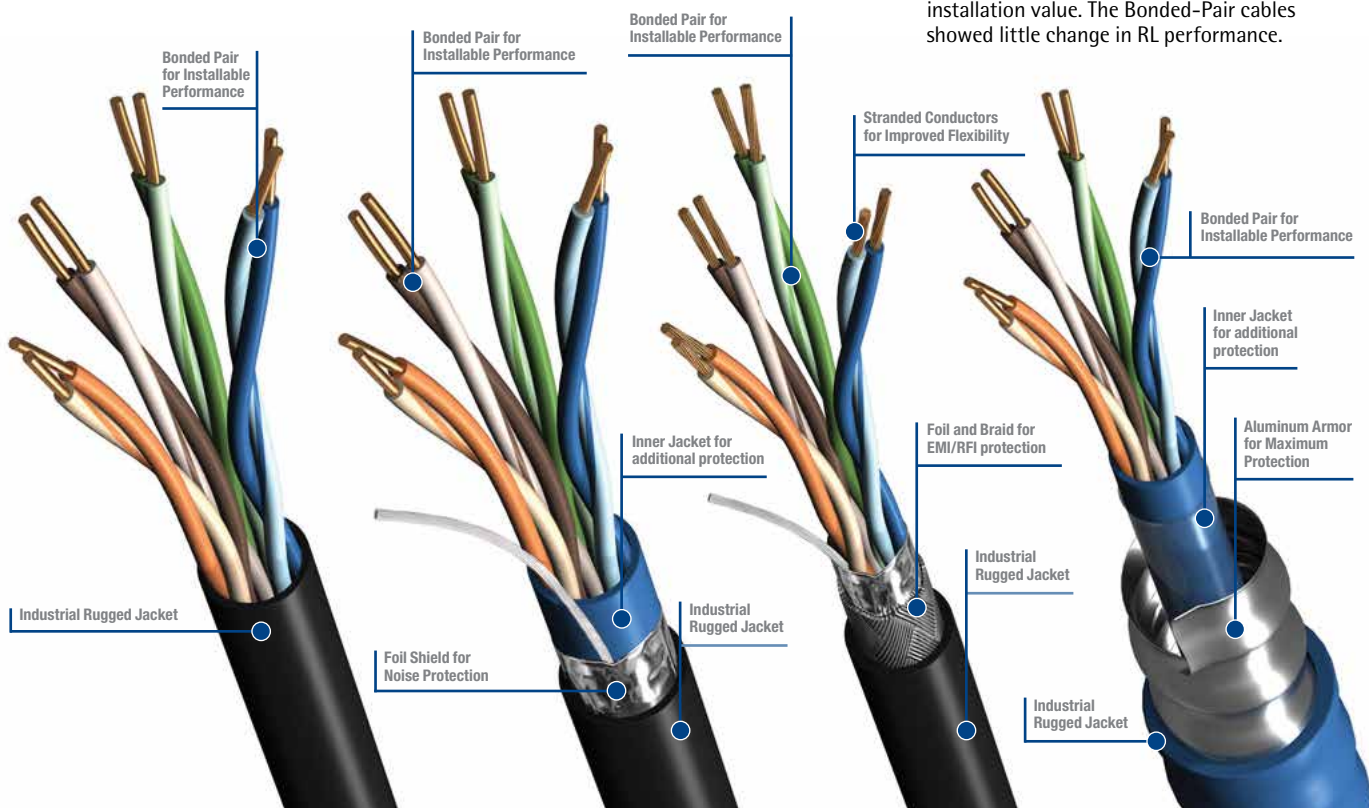
### Belden's Patented Bonded-Pair Technology

Most DataTuff cables feature Belden's Bonded-Pair technology, a patented cable construction which affixes the conductor insulation of the cable pairs along their longitudinal axes to ensure that no performance-robbing gaps can develop between the conductor pairs.

- No gaps between the conductor pairs means that the conductor-to-conductor spacing, or centricity, is always uniform
- With a uniform centricity, the cable offers excellent and consistently reliable electrical performance
- Installable Performance® is achieved – the affixing of the insulation of the cable pairs and the uniform centricity translate to superior electrical performance, even after the cable has been subjected to the bending, pulling and twists inherent in the installation process

### Tests Prove the After-installation Effectiveness of Belden Bonded-Pair Cables

In tests performed by Belden that simulate the effects of the installation process, both an industry-leading 350 MHz Cat 5e cable (a nonbonded-pair cable) and a Belden 350 MHz Cat 5e Bonded-Pair cable were tested right off the reel and then for the sake of comparison, they were subjected to an Installation Stress Test. Results showed that the nonbonded-pair cable had an RL degradation greater than 12 dB – over 15 times worse than its before-installation value. The Bonded-Pair cables showed little change in RL performance.





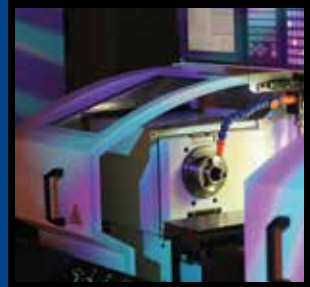
## Industrial Ethernet Cable Selection Guide

Part No.	No. of Pairs	Shielding		Conductor		Installation		Environmental Issues										Industrial Grade Jacket		
		Unshielded	Shielded ^	Solid	Stranded ^ ^	Installation Stress Resistance††	Pull Tension	Oil Resistance	UV Sunlight Resistance	Weld - Splatter Resistance	CMX/ Outdoor	Under-ground (burial)	Gasoline Resistance	LSZH	MSHA	Hi/Lo Temp	600V UL AWM Rated	Heavy	Upjacket	Armored
<b>Category 5e Cable</b>																				
<b>7932A</b> <i>EtherNet/IP</i>	2	•		•		•	20	•	•											•
<b>7933A</b> <i>EtherNet/IP</i>	2		•	•		•	20	•	•											•
<b>7923A</b> <i>EtherNet/IP</i>	4	•		•		•	40	•	•		•				•					•
<b>7918A</b>	4	•		•			35	•	•		•				•					•
<b>7924A</b>	4	•			•	•	40	•	•		•									•
<b>7930A</b>	4	•			•		25	•	•		•									•
<b>7922A</b> PLTC	4	•		•		•	40	•	•		•									•
<b>7934A</b> <i>EtherNet/IP</i>	4	•		•		•	40	•	•		•									•
<b>7937A</b>	4		•	•		•	40	•	•		•									•
<b>7939A</b>	4		•		•	•	40	•	•		•									•
<b>7928A</b> <i>EtherNet/IP</i>	4	•		•		•	40	•	•				•			•				•
<b>11700A</b> <i>EtherNet/IP</i>	4	•		•		•	40	•	•		•				•					•
<b>11700A2</b> Oil Res I&II	4	•		•		•	40	•	•											•
<b>121700A</b>	4	•		•		•	40	•	•											•
<b>121700R</b>	4	•		•		•	40	•	•											•
<b>7929A</b>	4		•	•		•	40	•	•		•				•					•
<b>7919A</b>	4		•	•			25	•	•		•				•					•
<b>7921A</b> <i>EtherNet/IP</i>	4		•	•		•	75	•	•		•									•
<b>7957A</b> <i>EtherNet/IP</i>	4		•	•		•	75	•	•		•					•				•
<b>7935A</b> <i>EtherNet/IP</i>	4	•		•		•	40		•					•						•
<b>7936A</b>	4		•	•		•	40		•					•						•
<b>7958A</b> <i>EtherNet/IP</i>	4		•	•		•	35	•	•		•			•		•				•
<b>7938A</b> High Flex	4		•		•	•	40	•	•	•										•
<b>Category 6 Cable</b>																				
<b>7927A</b>	4	•		•		•	45	•	•											•
<b>7931A</b>	4	•		•		•	40	•	•				•			•				•
<b>7940A</b> <i>EtherNet/IP</i>	4	•		•		•	40	•	•		•									•
<b>11872A</b>	4	•		•		•	45													•
<b>7953A</b> <i>EtherNet/IP</i>	4		•	•		•	40	•	•		•					•				•
<b>121872A</b>	4	•		•		•	200		•											•

^ Shielded products are recommended for high-noise environments.

^ ^ Stranded products are recommended where more flexibility is needed.

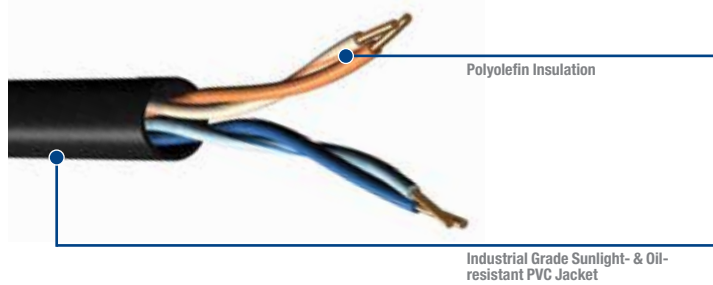
†† Products with Bonded-Pair technology provide Installable Performance® advantages — refer to Belden's Bonded-Pair Cable Bulletin #BP02



## Category 5e Cables, 2-Pair

### Category 5e Cables, 2-Pair\*, Solid Unshielded

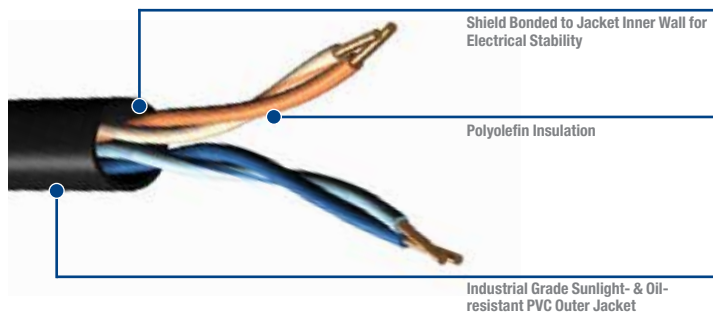
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7932A	24	Solid BC	2	●	1000	304.8	19.0	8.6	0.21	5.26	0.030	0.762	Black, Red, Teal PVC Black PVC
					2000	609.6	38.0	17.3					



- Non-plenum
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- M-12 or RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151 and 5,734,126
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

### Category 5e Cables, 2-Pair\*, Solid with Foil Shield

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7933A	24	Solid BC	2	●	1000	304.8	32.0	14.5	0.23	5.77	0.030	0.762	Black, Teal PVC Black PVC
					2000	609.6	64.8	29.4					



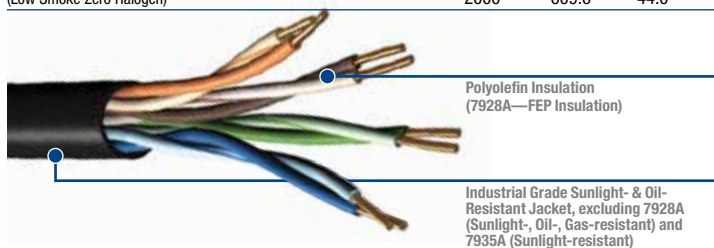
- Non-plenum; Overall Beldfoil Shield
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- M-12 or RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151 and 5,734,126
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

\* 2-Pair Color Codes: Pair No. 1 = White/Orange Stripe & Orange; Pair No. 2 = White/Green Stripe & Green

## Category 5e Cables, 4-Pair

### Category 5e Cables, 4-Pair\*, Solid Unshielded

Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7923A (MSHA Approved)	24	Solid BC	4	●	1000	304.8	28.0	12.7	0.23	5.84	0.030	0.762	Black, Red, Teal PVC Black PVC
					2000	609.6	54.0	24.5					
7918A (MSHA Approved)	24	Solid BC	4	●	1000	304.8	28.0	12.7	0.23	5.84	0.030	0.762	Black, Blue PVC Black PVC
					2000	609.6	52.0	23.6					
7922A (PLTC-Rated)	22	Solid BC	4	●	1000	304.8	46.3	21.0	0.30	7.65	0.030	0.762	Black PVC Black PVC
					2000	609.6	92.5	42.0					
7934A (Halogen Free—Waterblocked Burial)	24	Solid BC	4	●	1000	304.8	25.0	11.4	0.23	5.84	0.030	0.762	Black Polyethylene
7928A (Plenum Rated—High & Low Temp)	24	Solid BC	4	●	1000	304.8	24.0	10.9	0.19	4.75	0.030	0.762	Black FEP
7935A (Low Smoke Zero Halogen)	24	Solid BC	4	●	1000	304.8	24.0	10.9	0.23	5.84	0.030	0.762	Black LSZH Black LSZH
					2000	609.6	44.0	20.0					



- Non-plenum (Plenum: 7928A—NEC: Limited Combustible FHC 25/50 CMP; CEC: CMP FT6)
- Bonded-Pair construction (except 7918A)
- Operating and Installation temperatures available at [www.belden.com](http://www.belden.com)
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals (Except 7934A—3 ft. intervals)
- Cable passes -40°C Cold Bend per UL1581 (7922A: -25°C/7928A: -70°)
- U.S. Patents 5,606,151 and 5,734,126 (except 7918A)
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

### Category 5e Cables, 4-Pair\*, Solid Unshielded with Double Jacket

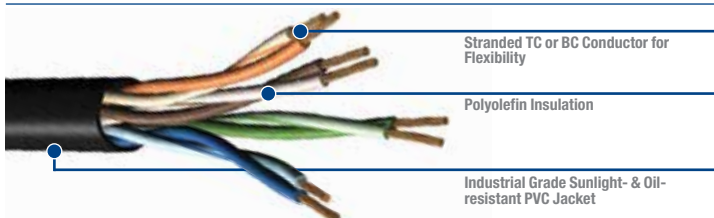
Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
11700A (MSHA approved)	24	Solid BC	4	●	1000	304.8	39.0	17.7	0.29	7.24	0.035	0.889	Black, Gray, Red, Teal, Blue PVC Black PVC
					3000	914.4	117.0	53.2					
11700A2 (Oil Res I & II)	24	Solid BC	4	●	1000	304.8	42.0	19.1	0.29	7.24	0.035	0.889	Black, Blue PVC Black PVC
					2000	609.6	86.0	39.1					



- Non-plenum; upjacketed
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C (11700A2: -10°C to +75°C)
- Installation temperature: -25°C to +75°C (11700A2: +5°C to +75°C)
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581 (11700A2: -10°C Cold Bend per UL1581)
- U.S. Patents 5,606,151 and 5,734,126
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

### Category 5e Cables, 4-Pair\*, Stranded Unshielded

Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7924A	24	Stranded TC (7 x 32)	4	●	1000	304.8	30.0	13.6	0.24	6.15	0.030	0.762	Black, Red, Teal PVC Black PVC
					2000	609.6	58.0	26.3					
7930A	24	Stranded BC (7 x 32)	4	●	1000	304.8	29.0	13.2	0.24	6.09	0.030	0.762	Black PVC Black PVC
					2000	609.6	56.0	25.4					



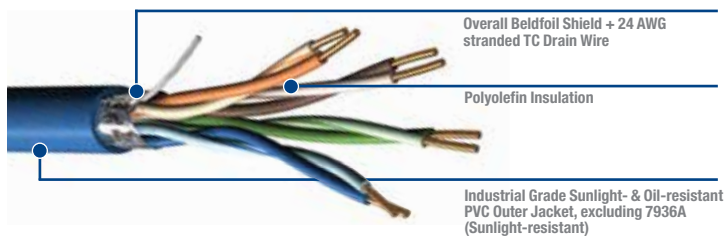
- Non-plenum; stranded/flexible
- Bonded-Pair construction (7924A only)
- Operating temperature: -40°C to +75°C (7930A: -25°C to +75°C)
- Installation temperature: -25°C to +75°C (7930A: -10°C to +75°C)
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581 (7930A: -25°C Cold Bend per UL1581)
- U.S. Patents 5,606,151, 5,734,126 and 5,763,823 (7924A only)
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

\* 4-Pair Color Codes: Pair No. 1 = White/Blue Stripe & Blue; Pair No. 2 = White/Orange Stripe & Orange; Pair No. 3 = White/Green Stripe & Green; Pair No. 4 = White/Brown Stripe & Brown



### Category 5e Cables, 4-Pair\*, Solid with Foil Shield

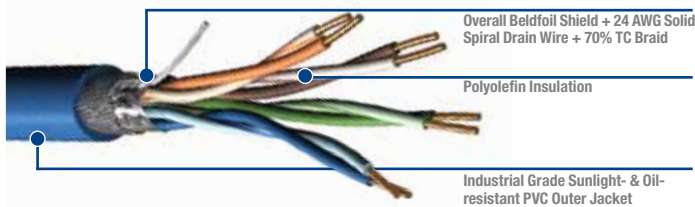
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7929A (MSHA Approved)	24	Solid BC	4		1000	304.8	37.0	16.8	0.27	6.73	0.030	0.76	Black, Blue PVC Black PVC
					2000	609.6	72.0	32.7					
					5000	1524.0	170.0	77.0					
7919A (MSHA Approved)	24	Solid BC	4		1000	304.8	35.0	15.9	0.27	6.73	0.030	0.76	Black PVC, Blue PVC Black PVC
					2000	609.6	68.0	30.9					
7936A (Low Smoke Zero Halogen)	24	Solid BC	4		1000	304.8	35.0	15.9	0.27	6.73	0.030	0.76	Black LSZH Black LSZH
					2000	609.6	76.0	34.5					
7958A (600 V UL AWM, MSHA Approved)	24	Solid BC	4	●	1000	304.8	37.0	16.8	0.27	6.73	0.030	0.76	Black, Blue, Teal PVC Black PVC
					2000	609.6	72.0	32.7					



- Non-plenum
- Bonded-Pair construction (except 7919A)
- Operating temperature: -40°C to +75°C (7936A: -10°C to +75°C)
- Installation temperature: -25°C to +75°C (7936A: +5°C to +75°C)
- Shield is bonded to jacket inner wall for electrical stability
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581 (7936A is -10°C Cold Bend per UL1581)
- U.S. Patents 5,606,151 and 5,734,126 (except 7919A)
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

### Category 5e Cables, 4-Pair\*, Solid with Foil and Braid Shield

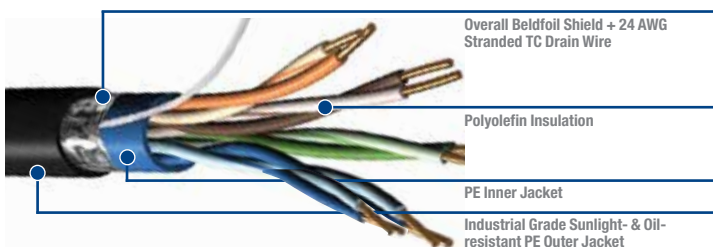
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7921A	24	Solid BC	4	●	1000	304.8	55.0	24.9	0.33	8.38	0.030	.762"	Black, Red, Teal, Blue PVC Black PVC
					2000	609.6	106.0	48.1					
7957A (600V UL AWM)	24	Solid BC	4	●	1000	304.8	55.0	24.9	0.33	8.38	0.030	.762"	Black, Teal, Blue PVC Black PVC
					2000	609.6	106.0	48.1					



- Non-plenum
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151 and 5,734,126
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

### Category 5e Cables, 4-Pair\*, Solid with Foil Shield and Double Jacket

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7937A	24	Solid BC	4		1000	304.8	38.0	17.2	0.28	7.01	0.030	.762"	Black PE

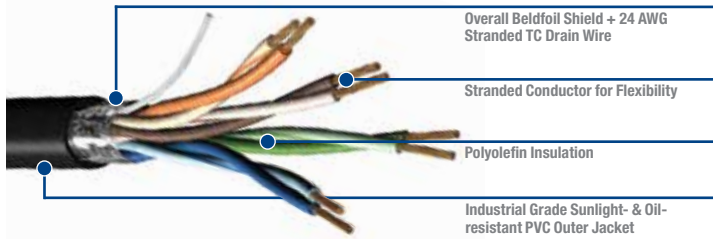


- Waterlocked burial (per Telcordia, IEC, and ICEA), Shielded, and Halogen Free
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151 and 5,734,126
- RoHS Compliant

\* 4-Pair Color Codes: Pair No. 1 = White/Blue Stripe & Blue; Pair No. 2 = White/Orange Stripe & Orange; Pair No. 3 = White/Green Stripe & Green; Pair No. 4 = White/Brown Stripe & Brown

## Category 5e Cables, 4-Pair\*, Stranded with Foil Shield

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7939A	24	Stranded BC (7x32)	4		1000	304.8	40.0	18.2	0.32	8.00	0.030	.762	Black, Teal PVC Black PVC
					2000	609.6	79.0	35.8					

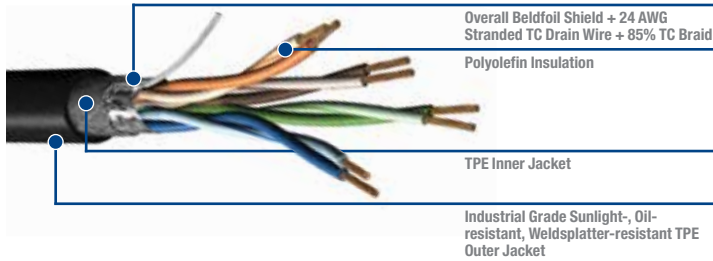


- Non-plenum; shielded, stranded
- Bonded-Pair Construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- RoHS Compliant

## Category 5e Cables, 4-Pair\*, Stranded with Foil and Braid Shield

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7938A <small>(Continuous Flex Rated-10 million cycles)</small>	24	Stranded Cu Alloy Conductor (7x32)	4		500†	152.4	28.0	12.7	0.34	8.60	0.030	.762	Matte Black TPE

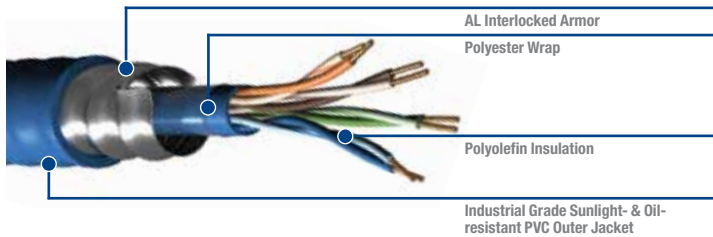
†Final one-piece put up length may vary -0 to +10% from length shown



- Non-plenum; upjacketed, shielded, stranded
- Bonded Pair Construction
- Continuous flex rated: 10 million cycles
- Sunlight-, oil-, and weldsplatter-resistant jacket
- Operating temperature: -40°C to +80°C
- Installation temperature: -25°C to +80°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- RoHS Compliant

## Category 5e Cables, 4-Pair\*, Solid with Interlocked Aluminum Armor

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
121700A	24	Solid BC	4		1000	304.8	159.0	72.0	0.53	13.46	0.045	1.14	Black, Gray PVC Black PVC
					3000	914.4	459.0	210.6					
121700R	24	Solid BC	4		1000	304.8	159.0	72.0	0.53	13.46	0.045	1.14	Black, Blue PVC Black, Blue PVC Black, Blue PVC
					3000	914.4	459.0	210.6					
					5000	1524.0	690.0	313.0					



- CM rated; Aluminum interlocked armor
- Bonded Pair Construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C (121700R: -40°C to +75°C)
- RJ-45 compatible
- Jacket sequentially marked at 1 meter intervals
- Cable passes -40°C Cold Bend per UL1581 (121700A Only)
- U.S. Patents 5,606,151 and 5,734,126
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant

\* 4-Pair Color Codes: Pair No. 1 = White/Blue Stripe & Blue; Pair No. 2 = White/Orange Stripe & Orange; Pair No. 3 = White/Green Stripe & Green; Pair No. 4 = White/Brown Stripe & Brown

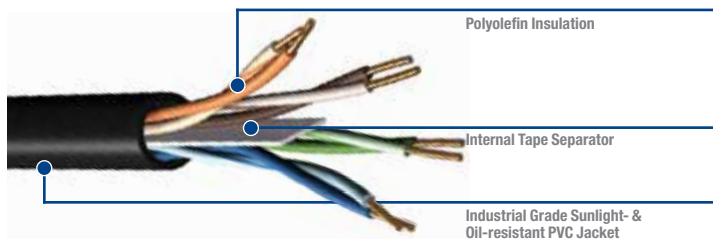




## Category 6 Cables, 4-Pair

### Category 6 Cables, 4-Pair\*, Solid Unshielded with Internal Tape Separator

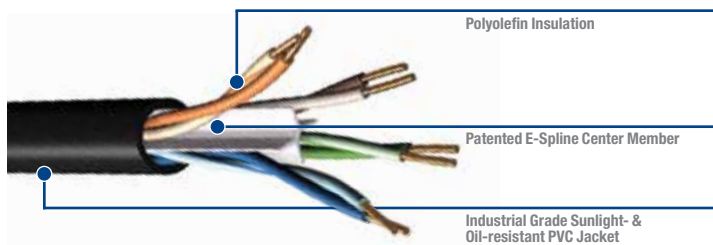
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7940A	23	Solid BC	4	•	1000	304.8	32.0	14.5	0.25	6.35	0.030	0.762	Red, Blue, Gray, Black PVC Black PVC
					2000	609.6	64.0	29.0					



- Non-plenum
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151, 5,734,126 and 5,821,467
- Verified to TIA/EIA-568-B.2-1, Category 6
- RoHS Compliant

### Enhanced Category 6 Cables, 4-Pair\*, Solid Unshielded with E-Spline Center Member

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7927A	23	Solid BC	4		1000	304.8	44.0	20.0	.251 x .339	6.38 x 8.61	0.030	0.762	Black PVC Black PVC
					2000	609.6	88.0	39.9					



- Non-plenum
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151, 5,734,126; 5,789,711 and 6,297,454-B1
- Third party verified to TIA/EIA-568-B.2-1, Category 6
- RoHS Compliant

### Category 6 Cables, 4-Pair\*, Solid Unshielded with FEP Insulation

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7931A (Plenum Rated-High & Low Temp)	23	Solid BC	4		1000	304.8	35.0	15.9	0.21	5.44	0.030	0.762	Black FEP

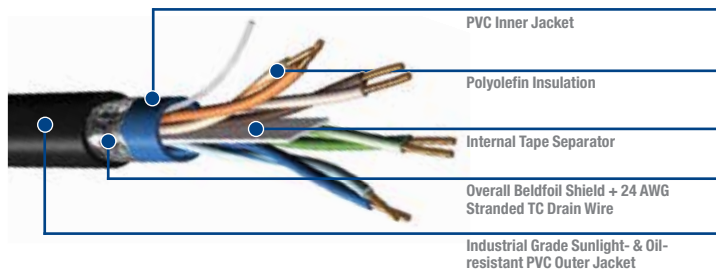


- Plenum (NEC: Limited Combustible FHC 25/50 CMP; CEC: CMP FT6)
- Oil Res I & II; Gas Res
- Bonded-Pair construction
- Operating temperature: -70°C to +150°C
- Installation temperature: -55°C to +150°C
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -70°C Cold Bend per UL1581
- U.S. Patents 5,606,151 and 5,734,126
- Third party verified to TIA/EIA-568-B.2-1, Category 6
- RoHS Compliant

\* 4-Pair Color Codes: Pair No. 1 = White/Blue Stripe & Blue; Pair No. 2 = White/Orange Stripe & Orange; Pair No. 3 = White/Green Stripe & Green; Pair No. 4 = White/Brown Stripe & Brown

## Category 6 Cables, 4-Pair\*, Solid with Foil Shield and Double Jacket

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7953A	23	Solid BC	4	●	1000	304.8	32.0	14.5	0.34	8.64	0.030	0.762	Black PVC Black PVC
					5000	1524.0	260.0	117.9					



- Non-plenum; shielded
- Bonded Pair Construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151, 5,734,126 and 5,821,467
- Verified to TIA/EIA-568-B.2-1, Category 6
- RoHS Compliant

## Category 6 Cables, 4-Pair\*, Solid Unshielded with Double Jacket

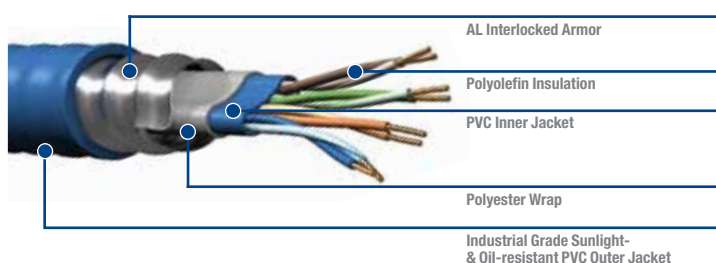
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
11872A	23	Solid BC	4		1000	304.8	66.0	30.0	.475 x .265	12.07 x 6.73	0.035	0.762	Black, Gray PVC



- Non-plenum; upjacketed
- Bonded-Pair construction
- Operating temperature: -25°C to +75°C
- Installation temperature: -10°C to +75°C
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -25°C Cold Bend per UL1581
- U.S. Patents 5,606,151, 5,734,126 and 5,821,467
- RoHS Compliant

## Enhanced Category 6 Cables, 4-Pair\*, Solid Unshielded with Double Jacket and Interlocked Aluminum Armor

Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
121872A	23	Solid BC	4		1000	304.8	222.0	100.6	0.68	17.37	0.055	1.397	Black, Gray PVC



- Non-plenum; interlocked aluminum armored
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C
- Installation temperature: -25°C to +75°C
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151, 5,734,126 and 5,821,467
- RoHS Compliant

\* Subject to length de-rating

\*\* Pennsylvania Department of Environmental Resources and United States Mine Safety and Health Administration Certification

\* 4-Pair Color Codes: Pair No. 1 = White/Blue Stripe & Blue; Pair No. 2 = White/Orange Stripe & Orange; Pair No. 3 = White/Green Stripe & Green; Pair No. 4 = White/Brown Stripe & Brown



## TrayOptic® Industrial, Heavy-Duty, All Dielectric Cable

Loose Tube — Indoor/Outdoor Riser Rated

### Applications

- Industrial and other harsh environment applications
- Factory automation
- Direct burial

### Product Description

Laser Optimized Fiber to handle Gigabit Ethernet light sources and expanded bandwidth requirements. Passes IEEE 1202/583-2003 flame test. Waterblocking agent for moisture protection. CPE outer jacket option provides extra chemical or abrasion resistance.

Jacket Material	PVC or CPE
Strength Member	Aramid Yarn
Jacket Color	
Single-mode	Yellow
62.5 / 125 µm	Orange
50 / 125 µm / 1 Gb	Orange
50 / 125 µm / 10 Gb	Aqua

### Riser

UL Type	OFNR
cUL Type	OFN FT.4
Flame Resistance	IEEE 1202 / 383-2003

### Complies to:

TIA/EIA-568-C.3
ICEA S-104-696

### Functional Requirements of:

GR-20-CORE
GR-409-CORE

### Specifications

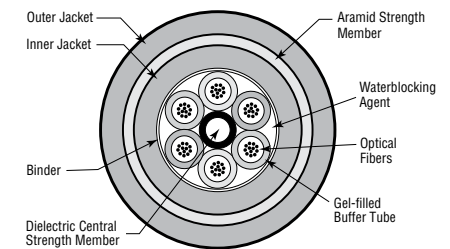
Temperature Range	
Storage	-40 to +70°C
Operating	-40 to +70°C
Crush Resistance (EIA-455-41)	
Impact Resistance (EIA-455-25)	2000 impacts @ 1.6N-m

Cyclic Flexing (EIA-455-104)	25 cycles, 12 lbs., 20 x OD radius min.
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Min. Bend Radius	
Installation	20 x OD
Long Term	15 x OD

Maximum Installation Load	600 lbs. (2700 N)
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### Fiber Bundle Detail



### Ratings

No. of Fibers	No. of Fibers Per Bundle	Belden Part Number					Outside Diameter		Weight		Max. Install Load	
		OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb - 300 m	OM4 50 / 125 µm 10 Gb - 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N

### TrayOptic Series



Riser (NEC/CEC OFNR/OFN FT.4) PVC Jacket Indoor/Outdoor												
No. of Fibers	No. of Fibers Per Bundle	OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb - 300 m	OM4 50 / 125 µm 10 Gb - 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N
2	2	I100255	I1A0255	I1C0255	I1E0255	I1W0255	0.43	11	92	136	600	2700
4	4	I100455	I1A0455	I1C0455	I1E0455	I1W0455	0.43	11	92	136	600	2700
6	6	I100655	I1A0655	I1C0655	I1E0655	I1W0655	0.43	11	92	136	600	2700
8	4	I400855	I4A0855	I4C0855	I4E0855	I4W0855	0.43	11	92	136	600	2700
12	6	I601255	I6A1255	I6C1255	I6E1255	I6W1255	0.43	11	92	136	600	2700
18	6	I601855	I6A1855	I6C1855	I6E1855	I6W1855	0.43	11	92	136	600	2700
24	6	I602455	I6A2455	I6C2455	I6E2455	I6W2455	0.43	11	92	136	600	2700
36	6	I603655	I6A3655	I6C3655	I6E3655	I6W3655	0.43	11	92	136	600	2700
48	12	I604855	I6A4855	I6C4855	I6E4855	I6W4855	0.54	13.72	128	186	600	2700
60	12	I606055	I6A6055	I6C6055	I6E6055	I6W6055	0.54	13.72	128	186	600	2700
72	12	I607255	I6A7255	I6C7255	I6E7255	I6W7255	0.54	13.72	128	186	600	2700

Riser (NEC/CEC OFNR/OFN FT.4) CPE Jacket Indoor/Outdoor												
No. of Fibers	No. of Fibers Per Bundle	OM1 62.5 / 125 µm Std. / 1 Gb	OM2 50 / 125 µm Std. / 1 Gb	OM3 50 / 125 µm 10 Gb - 300 m	OM4 50 / 125 µm 10 Gb - 550 m	OS2 Single-mode Enhanced	Inch	mm	lb/1000 ft	kg/km	lb	N
2	2	I100266	I1A0266	I1C0266	I1E0266	I1W0266	0.43	10.9	89	124	600	2700
4	4	I100466	I1A0466	I1C0466	I1E0466	I1W0466	0.43	10.9	89	124	600	2700
6	6	I100666	I1A0666	I1C0666	I1E0666	I1W0666	0.43	10.9	89	124	600	2700
8	4	I400866	I4A0866	I4C0866	I4E0866	I4W0866	0.43	10.9	89	124	600	2700
12	6	I601266	I6A1266	I6C1266	I6E1266	I6W1266	0.43	10.9	89	124	600	2700
18	6	I601866	I6A1866	I6C1866	I6E1866	I6W1866	0.43	10.9	89	124	600	2700
24	6	I602466	I6A2466	I6C2466	I6E2466	I6W2466	0.43	10.9	89	124	600	2700
36	6	I603666	I6A3666	I6C3666	I6E3666	I6W3666	0.43	10.9	89	124	600	2700
48	12	I604866	I6A4866	I6C4866	I6E4866	I6W4866	0.54	13.72	125	192	600	2700
60	12	I606066	I6A6066	I6C6066	I6E6066	I6W6066	0.54	13.72	125	192	600	2700
72	12	I607266	I6A7266	I6C7266	I6E7266	I6W7266	0.54	13.72	125	192	600	2700

**GLOBAL LOCATIONS**

For Worldwide Sales and  
Technical Support, Visit:  
[www.belden.com](http://www.belden.com)



**UNITED STATES**

**Division Headquarters – Americas**

2200 U.S. Highway 27 South  
Richmond, IN 47374  
**Phone: 765-983-5200**  
Inside Sales: 800-235-3361  
Fax: 765-983-5294  
info@belden.com  
www.belden.com

**Belden**

2200 U.S. Highway 27 South  
Richmond, IN 47374  
**Inside Sales:**  
**1-800-BELDEN-1**  
(1-800-235-3361)  
**Phone: 765-983-5200**  
Fax: 765-983-5294  
info@belden.com

**Industrial Networking**  
(Hirschmann and GarrettCom)

47823 Westinghouse Drive  
Fremont, CA 94539, USA  
**Phone: 510-438-9071**  
Fax: 510-952-3456  
www.belden.com/  
industrialnetworking

**Lumberg Automation**

1540 Orchard Drive  
Chambersburg, PA 17201  
**Phone: 717-217-2200**  
Fax: 717-217-2279  
info.lumberg@belden.com  
www.lumberg-automationusa.com

**CANADA**

**National Business Center**

2280 Alfred-Nobel  
Suite 200  
Saint-Laurent, QC  
Canada H4S 2A4  
**Phone: 514-822-2345**  
Fax: 514-822-7979

**LATIN AMERICA and  
the CARIBBEAN  
ISLANDS**

**Regional Office**

6100 Hollywood Boulevard  
Suite 110  
Hollywood, Florida 33024  
**Phone: 954-987-5044**  
Fax: 954-987-8022  
salesla@belden.com

**EUROPE/MIDDLE  
EAST/AFRICA**

**Division Headquarters – EMEA**

Edisonstraat 9  
5928 PG Venlo, 5900 AA,  
Postbus 9  
The Netherlands  
**Phone: +31-773-878-555**  
Fax: +31-773-878-448  
venlo.salesinfo@belden.com  
www.beldenemea.com

**Regional Offices**

Manchester International Office  
Centre, Suite 13  
Styal Road  
Manchester M22 5WB  
United Kingdom  
**Phone: +44 -61-4983749**  
Fax: +44-161-4983762  
manchester.salesinfo@  
belden.com

Location Neckartenzlingen-  
Stuttgarter Straße 45-51  
72654 Neckartenzlingen  
Germany  
**Phone: +49-(0)-712714-0**  
Fax: +44-161-4983762  
Fax: +49-(0)-7127 / 14-1313  
inet-sales@belden.com

**ASIA-PACIFIC**

**Division Headquarters – APAC**

7/F Harbour View 2  
16 Science Park East Avenue  
Hong Kong Science Park  
Shatin, Hong Kong  
**Phone: 852-2955-0128**  
Fax: 852-2907-6933  
hongkong.sales@belden.com

**Regional Offices**

Unit 301 No. 19 Building,  
1515 Gu Mei Road  
Caohejing High-tech Park  
Shanghai 200233  
People's Republic of China  
**Phone: 021-54452388**  
Fax: 021-54452366/77  
hongkong.sales@belden.com

101 27 International Business  
Park #05-01 iQuest @ IBP  
Singapore 609924  
**Phone: 65-6879-9800**  
Fax: 65-6251-5010  
singapore.sales@belden.com