

Industrial Ethernet Cable & Connectivity Solutions



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



Belden offers a wide range of high quality, high reliability DataTuff Industrial Ethernet cables, connectors, tools and accessories.

**Be certain.
Belden.**

Belden DataTuff Industrial Ethernet Cables Offer Peak Network Efficiency and Reliability

Category 6 and 5e IP67/IP20 cordsets, modular jacks, plug kits and other tools and accessories available starting on page 11.

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, Aluminum Armor, Steel Interlocked Armor and other specialty options are available
- 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)
- Weldspatter 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

Proving the After-installation Effectiveness of Bonded-Pair Cables

By simulating the effects of the installation process, both an industry-leading 350 MHz Cat 5e cable (non-bonded-pair) and a Belden 350 MHz Cat 5e bonded-pair cable were tested right off the reel. After a subsequent Installation Stress Test was performed, the results showed:

- Non-bonded-pair cable had an RL degradation greater than 12 dB — over 15 times worse than its before installation value.
- Bonded-pair cables maintained their integrity, showing little change in RL performance.

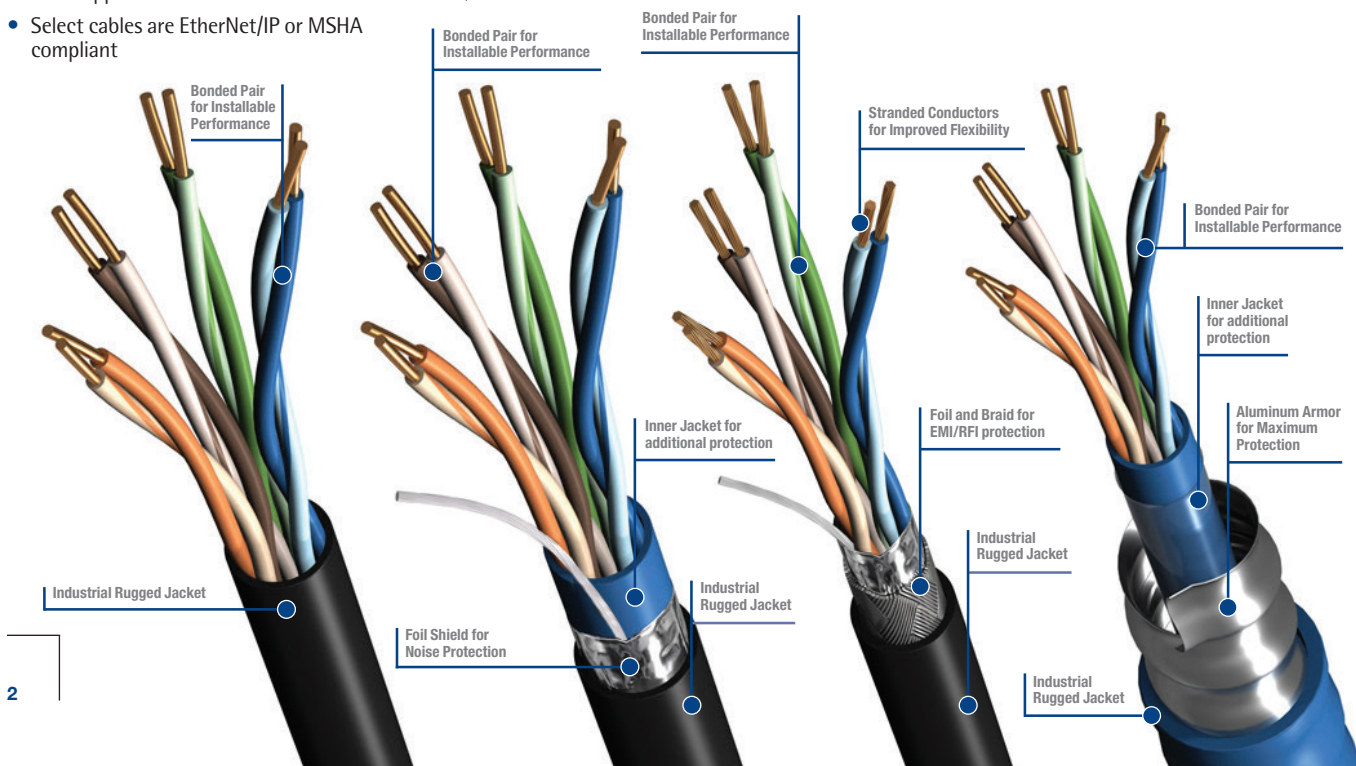
The Proof is in the Testing

Extensive testing compared both the physical and electrical performance of commercial off-the-shelf (COTS) cables versus industrial cables. The results clearly indicate how quickly commercial-grade cable fails when faced with the wide variety of extreme conditions found in industrial environments. In every test, conducted with state-of-the-art equipment and validated cable samples, industrial cable significantly outlasted and outperformed COTS cable.

Testing Included:

- Cold Bend
- Cut-Through
- Water Immersion
- Crushing
- UV Exposure
- Abrasion
- Oil Resistance
- Cold Impact
- High Temperature

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.



Be Certain with Belden



Industrial Ethernet Cable Selection Guide

Part No.	No. of Pairs	No. of Conductors	Shielding		Conductor		Installation		Environmental Issues											Industrial Grade Jacket	T568A Plug	T568B Plug
			Unshielded	Shielded ▲	Solid	Stranded ▲▲	Installation Stress Resistance††	Pull Tension	Oil Resistance	UV Sunlight Resistance	Weld - Splatter Resistance	CMV/ Outdoor	Under-ground (burial)	Gasoline Resistance	LSZH	P-MSHA*	Hi/Lo Temp	600V UL AWM Rated				
Category 6 Cable																						
7927A	4		●		●		●	45	●	●									Heavy	R301603	R301604	
7931A	4		●		●		●	40	●	●				●			●		Heavy	R301603	R301604	
7940A Ethernet/IP	4		●		●		●	40	●	●		●							Heavy	R301603	R301604	
11872A	4		●		●		●	45											Upjacket	R301603	R301604	
7953A Ethernet/IP	4			●	●		●	40	●	●		●					●		Upjacket	R301603	R301604	
121872A	4		●		●		●	200		●									Armored	R301603	R301604	
Category 5e Cable																						
7932A Ethernet/IP	2		●		●		●	20	●	●									Heavy	R301603	R301604	
7933A Ethernet/IP	2			●	●		●	20	●	●									Heavy	R301603	R301604	
7923A Ethernet/IP	4		●		●		●	40	●	●		●				●			Heavy	R301603	R301604	
7918A	4		●		●			35	●	●		●				●			Heavy	R301603	R301604	
7924A	4		●			●	●	40	●	●		●							Heavy	R301603	R301604	
7930A	4		●			●		25	●	●		●							Heavy	R301603	R301604	
7922A PLTC	4		●		●		●	40	●	●		●							Heavy	R301601	R301602	
7934A Ethernet/IP	4		●		●		●	40	●	●			●						Heavy	R301603	R301604	
7937A	4			●	●		●	40	●	●				●					Upjacket	R301603	R301604	
7939A	4			●		●	●	40	●	●		●							Heavy	R301601	R301602	
7928A Ethernet/IP	4		●		●		●	40	●	●				●			●		Heavy	None	None	
11700A Ethernet/IP	4		●		●		●	40	●	●		●				●			Upjacket	R301603	R301604	
11700A2 Oil Res I&II	4		●		●		●	40	●	●									Upjacket	R301603	R301604	
121700A	4		●		●		●	40	●	●									Armored	R301603	R301604	
121700R	4		●		●		●	40	●	●									Armored	R301603	R301604	
7929A	4			●	●		●	40	●	●		●				●			Heavy	R301601	R301602	
7919A	4			●	●			25	●	●		●				●			Heavy	R301603	R301604	
7921A Ethernet/IP	4			●	●		●	75	●	●		●							Heavy	R301601	R301602	
7957A Ethernet/IP	4			●	●		●	75	●	●		●						●	Heavy	R301601	R301602	
7935A Ethernet/IP	4		●		●		●	40		●					●				Heavy	R301603	R301604	
7936A	4			●	●		●	40		●					●				Heavy	R301603	R301604	
7958A Ethernet/IP	4			●	●		●	35	●	●		●				●		●	Heavy	R301601	R301602	
7938A High Flex	4			●		●	●	40	●	●	●								Upjacket	R301601	R301602	
Category 5e Cables/PROFINET																						
7960A Type A PROFINET		4		●	●			55	●	●		●							Heavy	R301601	R301602	
7961A Type B PROFINET		4		●		●		55	●	●		●							Heavy	R301601	R301602	
7962A Type C PROFINET		4		●		●		55	●	●	●	●							Heavy	R301601	R301602	

▲ Shielded products are recommended for high-noise environments.

▲ Stranded products are recommended where more flexibility is needed.

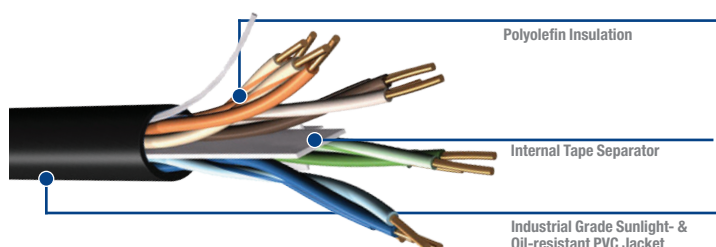
†† Products with Bonded-Pair technology provide Installable Performance® advantages — refer to Belden's Bonded-Pair Cable Bulletin #BP02

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

Category 6 Cables, 4-Pair

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

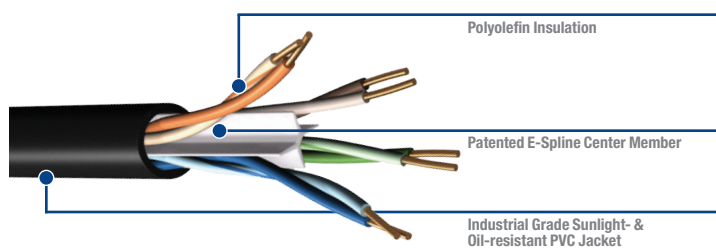
Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7940A	23	Solid BC	4		1000	304.8	32.0	14.5	0.25	6.35	0.030	0.762	Red, Blue, Gray, Black PVC Black PVC
					2000	609.6	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
- NEC: CMR
- CEC: CMR FT4, CMX Outdoor

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					

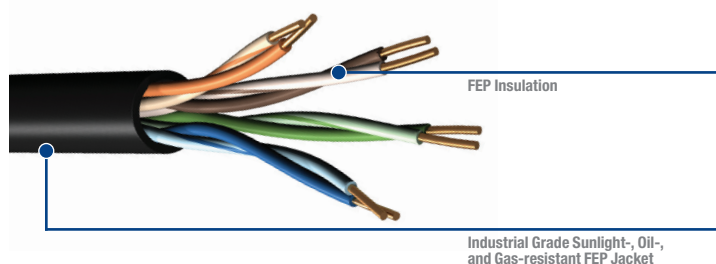


- Non-plenum
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C†
- Installation temperature: -25°C to +75°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151, 5,734,126; 5,789,711 and 6,297,454-B1
- Third party verified to TIA/EIA-568-B.2-1, Category 6
- RoHS Compliant
- NEC: CMR
- CEC: CMR FT4

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	23	Solid BC	4		1000	304.8	35.0	15.9	0.21	5.44	0.030	0.762	Black FEP

(Plenum Rated-High & Low Temp)



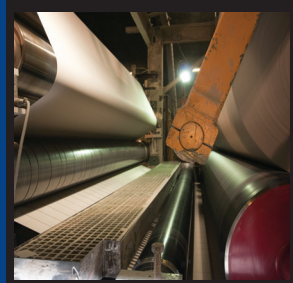
- Plenum
- Oil Res I & II; Gas Res
- Bonded-Pair construction
- Operating temperature: -70°C to +150°C†
- Installation temperature: -55°C to +150°C
- RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -70°C Cold Bend per UL1581
- U.S. Patents 5,606,151 and 5,734,126
- Third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

† Subject to length de-rating

* 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

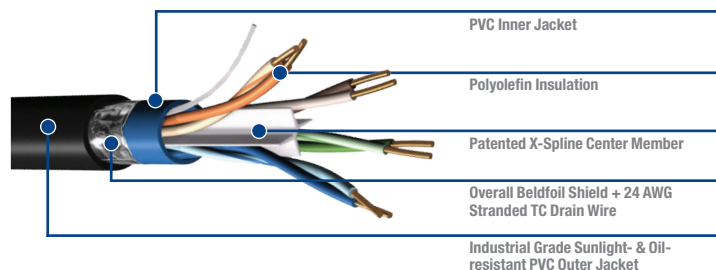
**Additional standard lengths and jacket colors may be available. Please call your Belden representative at 1.800.Belden1.

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

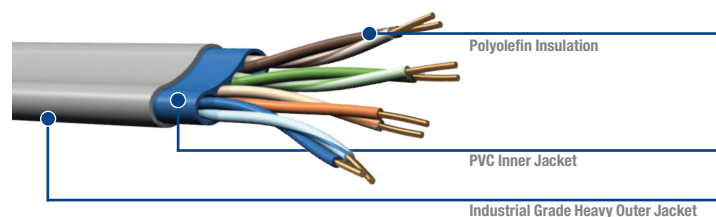
Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7953A	23	Solid BC	4		1000	304.8	32.0	14.5	0.34	8.64	0.030	0.762	Black PVC
					5000	1524.0	260.0	117.9					Black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



- 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
- NEC: CMR
- CEC: CMR FT4, CMX Outdoor, AWM 21047

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

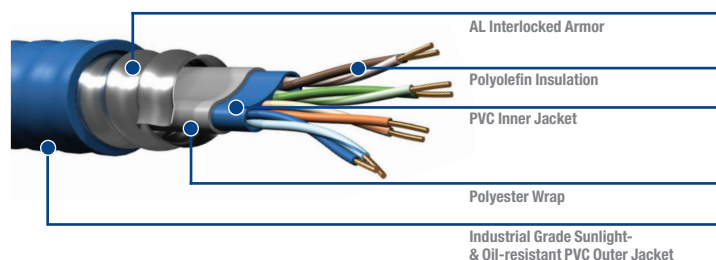
Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
11872A	23	Solid BC	4		1000	304.8	66.0	30.0	.475 x .265	12.07 x 6.73	0.035	0.762	Black, Gray PVC



- 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
- NEC: CM
- CEC: CM, PT1

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
- NEC: CM
- CEC: HL, CMG PT4

† Subject to length de-rating

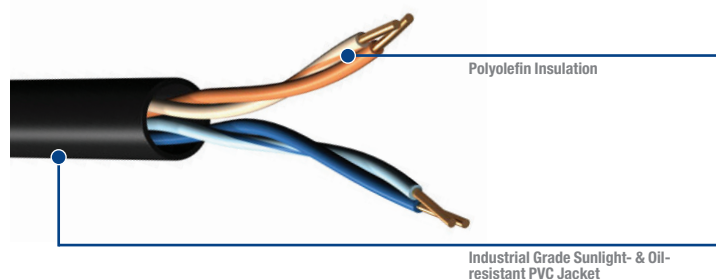
* **4-Pair Color Codes:** Pair No. 1 = White/Blue Stripe & Blue; Pair No. 2 = White/Orange Stripe & Orange; Pair No. 3 = White/Green Stripe & Green; Pair No. 4 = White/Brown Stripe & Brown

**Additional standard lengths and jacket colors may be available. Please call your Belden representative at 1.800.Belden1.

Category 5e Cables, 2-Pair

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

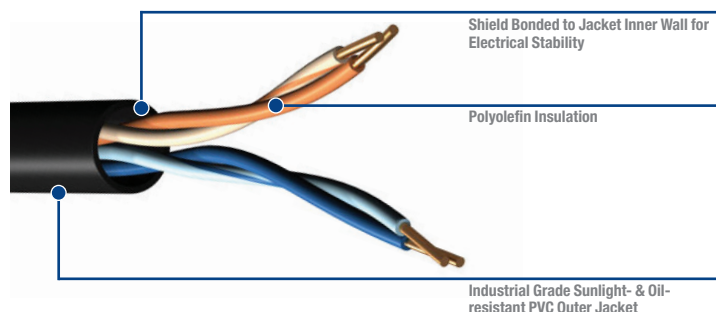
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7932A	24	Solid BC	2	●	1000	304.8	19.0	8.6	0.21	5.26	0.030	0.762	Black, Red, Teal PVC



- 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
- NEC: CMR
- CEC: CMR FT4

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
					2000	609.6	64.8	29.4					Black PVC



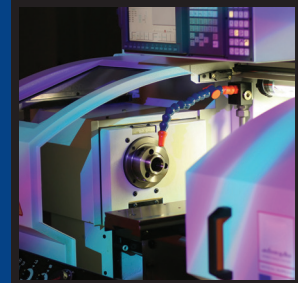
- Non-plenum; Overall Beldfoil Shield
- Bonded-Pair construction
- Operating temperature: -40°C to +75°C†
- Installation temperature: -25°C to +75°C
- M-12 or RJ-45 Compliant
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- U.S. Patents 5,606,151 and 5,734,126
- Third party verified to TIA/EIA-568-B.2, Category 5e
- RoHS Compliant
- NEC: CMR
- CEC: CMR FT4

† Subject to length de-rating

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

**Additional standard lengths and jacket colors may be available. Please call your Belden representative at 1.800.Belden1.

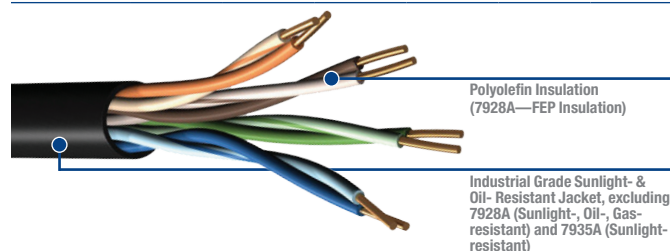
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Category 5e Cables, 4-Pair

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

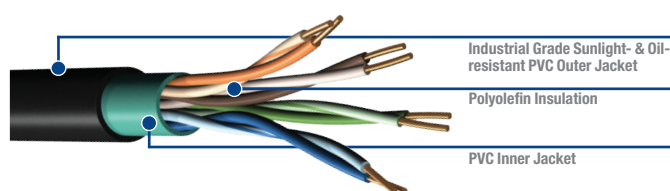
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7923A (P-MSHA Approved)	24	Solid BC	4	●	1000 2000	304.8 609.6	28.0 54.0	12.7 24.5	0.23	5.84	0.030	0.762	Black, Red, Teal PVC Black PVC
7918A (P-MSHA Approved)	24	Solid BC	4	●	1000 2000	304.8 609.6	28.0 52.0	12.7 23.6	0.23	5.84	0.030	0.762	Black, Blue PVC Black PVC
7922A (PLTC-Rated)	22	Solid BC	4	●	1000 2000	304.8 609.6	46.3 92.5	21.0 42.0	0.30	7.65	0.030	0.762	Black PVC Black PVC
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 2000	304.8 609.6	24.0 44.0	10.9 20.0	0.23	5.84	0.030	0.762	Black LSZH Black LSZH



- 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†
- 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
- NEC: CMR; CMX Outdoor (7923A, 7918A, 7922A, CM (7935A), Limited Combustible FHC 25/50 (7928A)
- CEC: CMR FT4 (7923A, 7918A, 7922A), CM FT1 (7935A), CMP FTG (7928A)

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

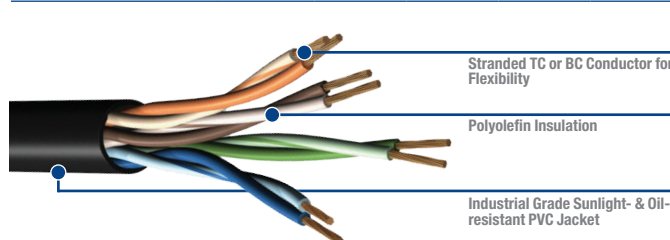
Part No.	AWG	Conductors	No. of Pairs	EtherNet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
11700A (P-MSHA approved)	24	Solid BC	4	●	1000 3000	304.8 914.4	39.0 117.0	17.7 53.2	0.29	7.24	0.035	0.889	Black,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



- 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
- NEC: CMR; CMX Outdoor (Except 11700A2)
- CEC: CMR FT4

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 2000	304.8 609.6	30.0 58.0	13.6 26.3	0.24	6.15	0.030	0.762	Black, Red, Teal PVC Black PVC
7930A	24	Stranded BC (7 x 32)	4	●	1000 2000	304.8 609.6	29.0 56.0	13.2 25.4	0.24	6.09	0.030	0.762	Black PVC Black PVC



- 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
- NEC: CMR; CMX Outdoor
- CEC: CMR FT4

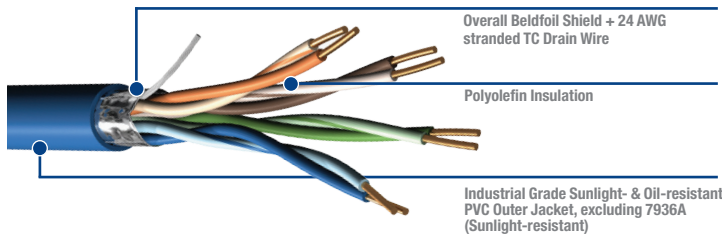
† Subject to length de-rating

* **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

**Additional standard lengths and jacket colors may be available. Please call your Belden representative at 1.800.Belden1.

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

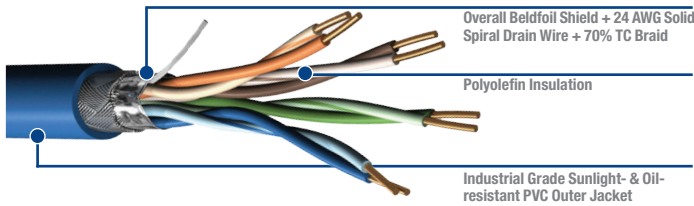
Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7929A (P-MSHA Approved)	24	Solid BC	4		1000	304.8	37.0	16.8	0.27	6.73	0.030	0.76	Black, Blue PVC Black PVC
					2000	609.6	72.0	32.7					
					5000	1524.0	170.0	77.0					
7919A (P-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, P-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
- NEC: CMR; CMX Outdoor (7936A)
- CEC: CMR FT4 (except 7936A); CMG FT4 (7936A only), AWM 21047 (7958A only)

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

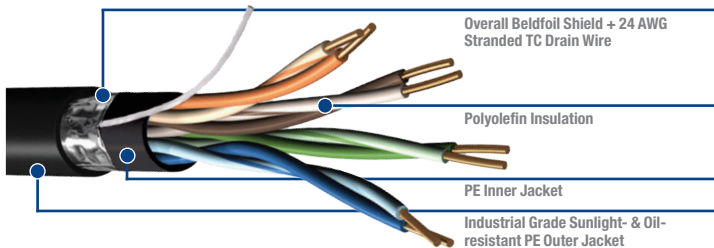
Part No.	AWG	Conductors	No. of Pairs	Ethernet/IP Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Thickness		Jacket Colors/Material**
					ft.	m	Lbs.	kg	Inch	mm	Inch	mm	
7921A	24	Solid BC	4	●	1000	304.8	55.0	24.9	0.33	8.38	0.030	.762	Black, Red, Teal, Blue PVC Black PVC
					2000	609.6	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
- NEC: CMR; CMX Outdoor
- CEC: CMR FT4; AWM 21047 (7957A only)

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	0.762	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

† Subject to length de-rating

* **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

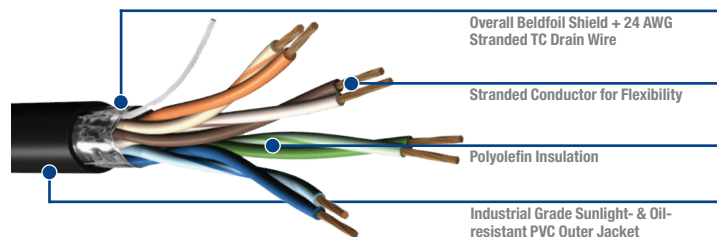
**Additional standard lengths and jacket colors may be available. Please call your Belden representative at 1.800.Belden1.

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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	0.762	Black, Teal PVC Black PVC
					2000	609.6	79.0	35.8					

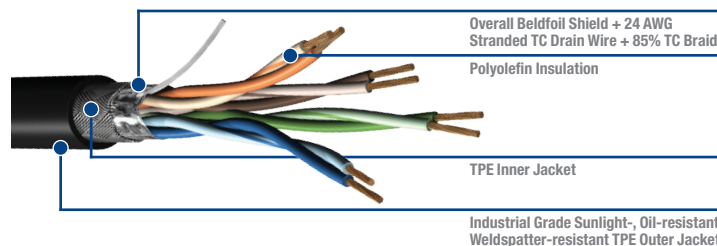


- Non-plenum; shielded, stranded
- Bonded-Pair Construction
- Operating temperature: -40°C to +75°C†
- Installation temperature: -25°C to +75°C
- Special RJ-45 plugs required
- Jacket sequentially marked at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- RoHS Compliant
- NEC: CMR; CMX Outdoor
- CEC: CMR FT4

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	24	Stranded Cu Alloy Conductor (7x32)	4	●	500†	152.4	28.0	12.7	0.34	8.60	0.030	.762	Matte Black TPE
(Continuous Flex Rated-10 million cycles)													

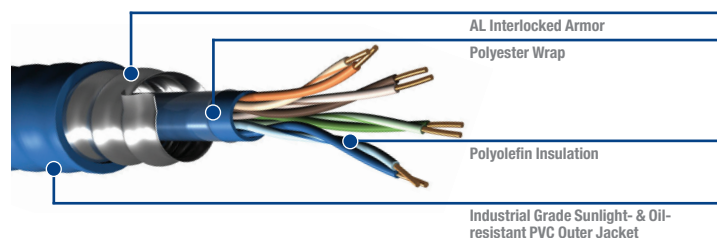
†Final one-piece put up length may vary -0 to +10% from length shown



- Non-plenum; upjacketed, shielded, stranded
- Bonded Pair Construction
- Continuous flex rated: 10 million cycles
- Sunlight-, oil-, and weldspatter-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
- FT1, AWM 20626

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
- NEC: CM
- CEC: HL; CMG FT4

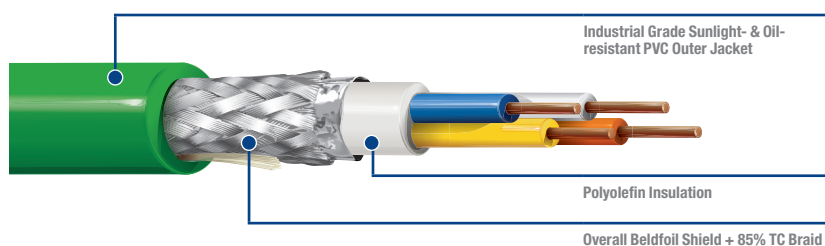
† Subject to length de-rating

* 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

**Additional standard lengths and jacket colors may be available. Please call your Belden representative at 1.800.Belden1.

Category 5e Cables, 4 Conductor Quad, Type A PROFINET, Stranded with Foil Braid and Shield

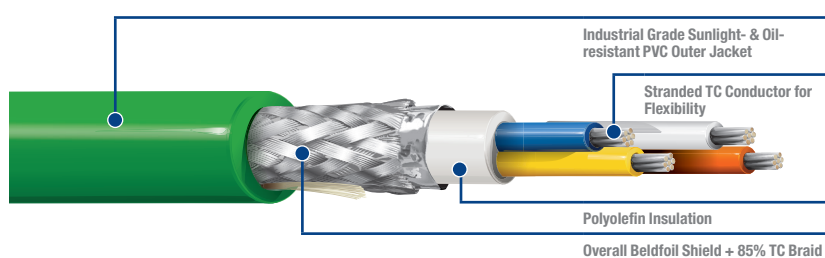
Part No.	AWG	Conductors	No. of Conductors	PROFINET Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	
7960A	22	Solid BC	4	●	1000	304.8	44	19.96	0.268	6.807	Green (RAL 6018) PVC
					2000	609.6	88	39.92	0.268	6.807	



- Non-plenum, shielded
- Symmetric quad design
- Operating Temperature: -40°C to +80°C[†]
- Installation Temperature: -20°C to +60°C
- Compatible with Multiple Connectivity Solutions, including RJ45
- Jacket sequentially marketed at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- Third party verified to TIA/EIA-568-C.2, Category 5e
- NEC/(UL) Specification: CMG, CMX-Outdoor, ITC, PLTC
- CEC/C(UL) Specification: CMG

Category 5e Cables, 4 Conductor Quad, Type B PROFINET, Stranded with Foil Braid and Shield

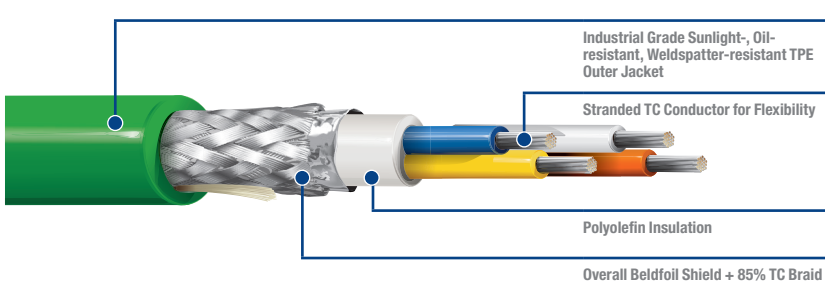
Part No.	AWG	Conductors	No. of Conductors	PROFINET Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	
7961A	22	Stranded TC (7 x 0.25mm)	4	●	1000	304.8	46	20.87	0.272	6.909	Green (RAL 6018) PVC
					2000	609.6	92	41.73	0.272	6.909	



- Non-plenum, shielded
- Symmetric quad design
- Operating Temperature: -40°C to +80°C[†]
- Installation Temperature: -20°C to +60°C
- Compatible with Multiple Connectivity Solutions, including RJ45
- Jacket sequentially marketed at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- Third party verified to TIA/EIA-568-C.2, Category 5e
- NEC/(UL) Specification: CMG, CMX-Outdoor, ITC, PLTC
- CEC/C(UL) Specification: CMG

Category 5e Cables, 4 Conductor Quad, Type C PROFINET, Stranded with Foil Braid and Shield

Part No.	AWG	Conductors	No. of Conductors	PROFINET Compliant	Standard Lengths**		Standard Unit Wt.		Nominal OD		Jacket Colors/Material**
					Ft.	m	Lbs.	kg	Inch	mm	
7962A	22	Stranded TC (19 x 34)	4	●	1000	304.8	49	22.23	0.276	7.010	Green (RAL 6018) PVC
					2000	609.6	98	44.45	0.276	7.010	



- Non-plenum, shielded
- Symmetric quad design
- Operating Temperature: -40°C to +80°C[†]
- Installation Temperature: -20°C to +60°C
- Compatible with Multiple Connectivity Solutions, including RJ45
- Jacket sequentially marketed at 2 ft. intervals
- Cable passes -40°C Cold Bend per UL1581
- Third party verified to TIA/EIA-568-C.2, Category 5e
- NEC/(UL) Specification: CM, CMX-Outdoor, ITC, PLTC
- CEC/C(UL) Specification: CM

[†] Subject to length de-rating

**Additional standard lengths and jacket colors may be available. Please call your Belden representative at 1.800.Belden1.

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Belden DataTuff Industrial Ethernet Connectivity, Tools & Accessories

To complete the End-to-end Industrial Ethernet Cabling Solution, Belden offers an in-depth line of connectivity solutions, cabling accessories and DataTuff tools for mission-critical/harsh environments.

Belden Connectivity Solutions

- **Cord Sets (RJ45)**
Cat 6 or Cat 5e UTP or FTP with solid 24 AWG conductors and industrial-grade sunlight/oil resistant jackets. Suitable for use in IP67 or IP20 installations.
- **Modular Jacks (RJ45)**
Cat 6 or Cat 5e for UTP or FTP. Suitable for use in IP67 installations.
- **Plug Kits (RJ45)**
Cat 5e UTP or FTP. Suitable for use in IP67 installations.
- **Metal Body Field-Installable Plug**
Cat6 UTP or FTP.

Belden Cabling Accessories

Belden offers industrial-grade faceplates and surface mount boxes:

- **Stainless Steel Faceplates**
1- or 2-Port single-gang or 4-Port double-gang. Suitable for use in IP67 installations.
- **Surface Mount Boxes**
1-, 2-, 3-, or 4-Port with Stainless Steel Covers. Suitable for use in IP67 installations.

Belden Tools

Belden provides the following easy-to-use, highly durable tools:

- **Crimping Hand Tool**
(Black with Blue handle) that crimps either UTP or FTP RJ45 plugs.
- **Cable Strippers (Blue)**
- **Punch Down Connecting Tool and Punch**

IP Enclosure Ratings

The IP Code defined in International Standard IEC 60529 classifies a component's level of protection against the intrusion of solid objects or dust, accidental contact, and water. The rating consists of the letters IP (sometimes interpreted as "ingress protect rating" or "international protection rating"), followed by two numbers and an optional letter. The numbers indicate conformity with the conditions summarized in the tables below. Where there is no protection rating with regard to one of the criteria, the number is replaced with the letter X.

First Number

The first number indicates the level of protection that the enclosure provides against access to hazardous parts (i.e., electrical conductors, moving parts) and the ingress of solid foreign objects.

Level	Object Size Protected Against	Details
0	—	No protection against contact and ingress of objects.
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part.
2	>12.5 mm	Fingers or similar objects.
3	>2.5 mm	Tools, thick wires, etc.
4	>1 mm	Most wires, screws, etc.
5	Dust protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact.
6	Dust tight	No ingress of dust; complete protection against contact.

Second Number

Protection of the equipment inside the enclosure against harmful ingress of water.

Level	Protected Against	Details
0	Not protected	—
1	Dripping water	Dripping water (vertically falling drops) shall have no harmful effect.
2	Dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position.
3	Spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no harmful effect.
4	Splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.
5	Water jets	Water projected by a nozzle against enclosure from any direction shall have no harmful effects.
6	Powerful water jets	Water projected in powerful jets against the enclosure from any direction shall have no harmful effects.
7	Immersion up to 1m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1m of submersion).
8	Immersion beyond 1m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. Note: Normally, this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter but only in such a manner that produces no harmful effects.

DataTuff Industrial Ethernet Cordsets (RJ45) with Heavy Duty Oil- & Sunlight-Resistant Black Jackets

(see cable pages for base cable specifications)

Belden Part No.	IP Rating *	Length, in Meters (m)	Tethered Cap	Connector	Base Cable	Conductor	Shielding	Speed
E6000xx	IP67	xx = 01,02,03,05,25	Yes	RJ45	7940A	Solid	Unshielded	Cat6
E6010xx	IP20	xx = 01,02,03,05	--	RJ45	7940A	Solid	Unshielded	Cat6
E6040xx	IP67	xx = 01,02,03,05,25	Yes	RJ45	7953A	Solid	Shielded	Cat6
E6050xx	IP20	xx = 01,02,03,05	--	RJ45	7953A	Solid	Shielded	Cat6
R5090xx	IP20	xx = 01,02,03,05,10	--	Rugged RJ45	7957A	Solid	Shielded	Cat6
R6010xx	IP20	xx = 01,02,03,05	--	Rugged RJ45	7940A	Solid	Unshielded	Cat6
R6050xx	IP20	xx = 01,02,03,05	--	Rugged RJ45	7953A	Solid	Shielded	Cat6
E5000xx	IP67	xx = 01,02,03,05,25	Yes	RJ45	7923A	Solid	Unshielded	Cat5e
E5010xx	IP20	xx = 01,02,03,05	--	RJ45	7923A	Solid	Unshielded	Cat5e
E5020xx	IP67	xx = 01,02,03,05,25	Yes	RJ45	7924A	Stranded	Unshielded	Cat5e
E5030xx	IP20	xx = 01,02,03,05	--	RJ45	7924A	Stranded	Unshielded	Cat5e
E5040xx	IP67	xx = 01,02,03,05,25	Yes	RJ45	7958A	Solid	Shielded	Cat5e
E5050xx	IP20	xx = 01,02,03,05	--	RJ45	7958A	Solid	Shielded	Cat5e
E5060xx	IP67	xx = 01,02,03,05,25	Yes	RJ45	7939A	Stranded	Shielded	Cat5e
E5070xx	IP20	xx = 01,02,03,05	--	RJ45	7939A	Stranded	Shielded	Cat5e
E5080xx	IP67	xx = 01,02,03,05,10	--	RJ45	7957A	Solid	Shielded	Cat5e
E5090xx	IP20	xx = 1,2,3,4,5,6,7,10,50	--	RJ45	7957A	Solid	Shielded	Cat5e

* IP67 interface complies with the EtherNet/IP specification (IEC 61076-3-106 Variant 1)

IP67 Cord Set



IP20 Cord Set



Custom Length Cordset Capabilities

Belden's pre-terminated industrial Ethernet cordsets deliver rapid deployment coupled with guaranteed performance and physical protection without the need for tradeoffs or compromise in performance and reliability. Custom lengths are available in any interval up to 100 meters. Users can deploy their high-performance networks with optimal speed and efficiency through the use of plug-ended, pre-terminated assemblies paired with modular couplers with options, bringing a new level of ease and convenience to cabling system design, ordering and installation. Rated for IP20 or IP67, our pre-terminated cordsets guarantee protection against any level of industrial environment and are equipped for protection against water, dust, contact, vibration, heat and flame.

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Modular Jacks (RJ45)

IP67 interface complies with the [EtherNet/IP](#) specification (IEC 61076-3-106 Variant 1)



Cat 6. IP67			
Belden Part No.	Description	Tethered Cap	Package Quantity
E100601 010S1	UTP, Black	Yes	1
E100602 010S1	FTP, Black	Yes	1
Cat 5e. IP67			
Belden Part No.	Description	Tethered Cap	Package Quantity
E100501 010S1	UTP, Black	Yes	1
E100502 010S1	FTP, Black	Yes	1

Plug Kits (RJ45). Cat 5e. IP67

IP67 interface complies with the [EtherNet/IP](#) (IEC 61076-3-106 Variant 1)



Belden Part No.	Description	Tethered Cap	Package Quantity
E300501 010S1	UTP, Black	Yes	1
E300502 010S1	FTP, Black	Yes	1

Field-Installable Metal Body Ruggedized Plug (RJ45). Cat 6. IP20



Belden Part No.	Description	Package Quantity
R301601 000S1	UTP/STP, T568A Plug	1
R301602 000S1	UTP/STP, T568B Plug	1

Stainless Steel Faceplates. IP67



Belden Part No.	Description	Package Quantity
E200001 000S1	Single gang, 1-port	1
E200002 000S1	Single gang, 2-port	1
E200004 000S1	Double gang, 4-port	1

Surface Mount Boxes. IP67

Surface Mount Box Dimensions: 12.8 x 12.8 x 6.7 cm deep (5.05" x 5.05" x 2.625" deep)



Belden Part No.	Description	Package Quantity
E200101 009S1	1-port, White/Stainless Steel Cover	1
E200102 009S1	2-port, White/Stainless Steel Cover	1
E200103 009S1	3-port, White/Stainless Steel Cover	1
E200104 009S1	4-port, White/Stainless Steel Cover	1

FTP = Foil Shielded Twisted Pairs • UTP = Unshielded Twisted Pairs

Tools

Belden Part No.	Description	Package Quantity
E400001 006S1	Hand tool to crimp unshielded (UTP) and shielded (FTP) RJ45 plugs. Black with Blue handle	1
E400003 008S1	Cable stripper, Gray	1
AX100749	Punch-down connecting tool	1
C0054642	Punch-down connecting tool pouch	1

Stripping Tool



Punch-down Connecting Tool



Crimp Tool





MIPP is a modular, flexible patch panel that combines both copper and fiber cabling in one innovative solution.

The new MIPP is a termination panel for cables that need to be connected to active equipment such as switches. Thanks to the modular design, MIPP can be linked to create a large single patch panel, to which, for the first time ever, both fiber and copper cables can be connected.

The MIPP is a completely new solution that provides the ideal connection between Belden cables and Hirschmann switches. Available in a choice of modules suitable for both fiber and copper cables, up to 6 modules can be connected to create a single panel that can accommodate both types of cable at the same time for maximum system flexibility. Using patchcords to connect to active equipment,

MIPP: A Versatile, Modular Patch Panel for Industrial Use

The MIPP is available as both single and double modules:

- Single Fiber Modules (up to 12 fiber connections)
 - 6 x SC duplex adapters
 - 6 x LC duplex adapters
 - 6 x ST duplex adapters
 - 6 x E-2000™ duplex adapters
- Single Copper Modules
 - 4 x RJ45 keystone shielded
 - 4 x RJ45 keystone unshielded
 - 4 x RJ45 coupler shielded
 - 4 x RJ45 coupler unshielded
- Double Fiber Modules (up to 24 fiber connections)
 - 12 x SC duplex adapters
 - 12 x LC duplex adapters
 - 12 x ST duplex adapters
 - 12 x E-2000™ duplex adapters

Thanks to their compact dimensions, up to 6 modules can be combined in any permutation—and when required, each module can be easily removed or replaced for maximum flexibility.

The Advantages at a Glance

- Accommodating various media and connectors
- LC, SC, ST and E-2000™ fiber duplex adapters

- RJ45 copper keystone jacks (Shielded and Unshielded, Cat 5e, Cat 6, Cat 6A)
- RJ45 copper coupler (Shielded and Unshielded, Cat 6A)
- High port density for maximum use of available space
- Easy to use, allows space for handling cable and module is removable from unit to facilitate connection/splicing
- Splice tray and multiple fingers for easy fiber management
- Cable entry in two places (top or bottom), for ease of use and choice of placement in cabinet
- Three cable entries for single fiber module, for ring topology applications
- Double fiber module accommodates hybrid fiber cables, with single mode and multi mode fibers
- Resilient for protection against the harsher industrial environments
- Wide temperature range from -20°C to +70°C
- Available as part of a system with market leading Hirschmann switches and high performance Belden cabling for optimum reliability in Industrial Ethernet networks
- UL approval (UL 1863)

cables can be terminated outside the cabinet in an organised and structured manner to ensure the highest level of reliability.

Benefits

The MIPP is designed for industrial use, where its functionality and reliability can make a significant contribution to the uptime and availability of the system. Thanks to its modular design, installation is quick and easy, saving time and significantly reducing initial set-up costs, while at the same time contributing to greater reliability and easier and more efficient system management, requiring less maintenance.

Designed to have the same look and feel as the Hirschmann range of industrial switches, the MIPP has a lightweight aluminium structure which increases its overall versatility. It can easily be mounted on a DIN Rail, or it can even be attached at the sides of the cabinets simply using a wall mount plate. Thanks to its small housing, high port density and modularity, cabinet space is kept to a minimum.

Always Stay Ahead with Belden

For more information, check out the new Modular Industrial Patch Panel (MIPP) new product bulletin online at belden.com

Be Certain with Belden



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 2000 impacts @ 1.6N-m
(EIA-455-25)

Cyclic Flexing (EIA-455-104)

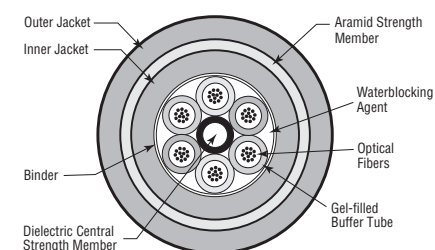
25 cycles, 12 lbs.,
20 x OD radius min.

Min. Bend Radius

Installation	20 x OD
Long Term	15 x OD

Maximum Installation Load 600 lbs. (2700 N)

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												
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												
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

† Subject to length de-rating

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