



BELDEN

Professional Video Cables and Connectors

High-quality coaxial video
cables and connectors that
deliver excellent picture quality
over extended distances

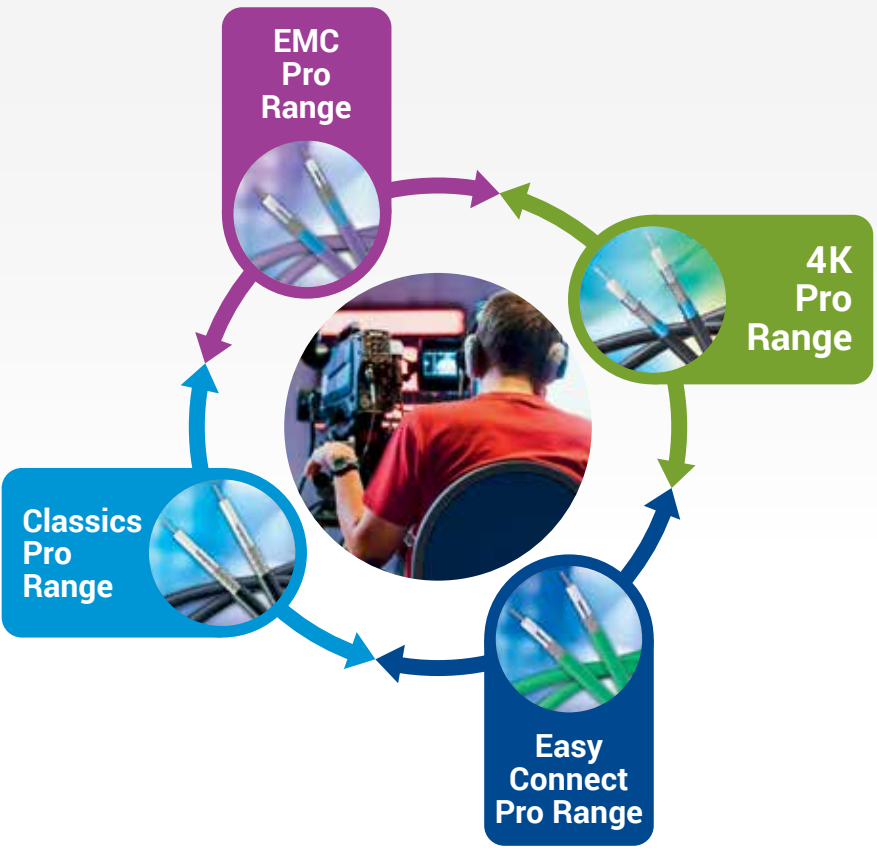


Belden Professional Video Cables

With a long-standing reputation for quality and reliability, Belden Professional Video Cables are engineered to meet the broadcast industry's increased demand for reliable HD video transmission.

Recommended by manufacturers of professional broadcast equipment, Belden Professional Video Cables are the first choice of content providers striving to deliver flawless rich media content like 4K, 3G or HD video in production and live streaming applications. That's why these cables are setting the standard in UHD and HD applications around the world, from major sporting events to daily newscasts.

Belden Professional Video Cables are available in three different variations to help professional broadcasters achieve excellent picture quality and consistency in a variety of current and emerging applications. With guaranteed return loss performance, these coaxial video cables offer extended transmission distances and future proof capabilities for complete peace of mind. They are physically robust for maximum reliability and feature simple easy-to-use connectivity for faster, easier installations and cost savings.



Belden Professional Video Cables Deliver:

- Beyond standards performance for longer lengths
- Superior UHD and HD picture quality and consistency
- Speed and ease of installation for labor savings
- Robust construction and headroom for installable performance

4K Pro Video Cables

Belden 12G-SDI coaxial solutions maximize 4K signal transmission distance on a single coax, minimizing weight and space compared to dual- or quad-link configurations.

Superior Performance

Engineered specifically to optimize transmission distance, Belden 4K Pro cables exceed the SMPTE Return Loss (RL) specifications for UHDTV providing significant headroom and guaranteeing 15 dB RL from 4.5 to 12GHz. Upgraded manufacturing machinery, new braid design, silver-plated copper conductor, and a new polyethylene formula are all design features that contribute to significant RL improvement and an improvement on cable attenuation compared to existing coaxes. Belden 4K Pro Cables have proven interoperability with multiple leading chipset manufacturers.

Reduce Weight, Space and Cost

Belden 4K Pro cables are capable of supporting 12GHz bandwidth and enables a single-link configuration to transmit 4K. Dual-link and quad-link configurations can be bulky, increase cost and require timeconsuming measuring for precise cable lengths across all links. Using Belden 4K Pro cables as a single-link solution saves time and is significantly lighter than dual or quad-link configurations.

Easier Installation

For the 4K Pro range, the inner foil is bonded to the dielectric to eliminate bunching when installing 1-piece compression connectors. Besides providing increased shield effectiveness, Belden 4794R's featured tri-shield (foil /braid / foil) design simplifies installation. The outer foil is bonded to the jacket for a quicker, one-step stripping process.



- 12G-SDI cables guaranteed 15 dB RL Limit from 4,5 to 12GHz for 8-11 dB headroom against SMPTE limit
- Inner foil bonded to the core on 12G-SDI cables for easier installation with one-piece compression connectors
- One-piece compression connectors simplify and speed installation
- New custom mixed formula for gas-injected foam high-density polyethylene insulation
- PVC and LSZH jacket
- 75 Ohms impedance
- PVC version is UL rated CMR and C(UL) CMG FT4
- CPR Europe: Cca rated version -ELW



Fast and Easy:
No need to remove the foil during termination.

Classics Pro Video Cables

With live broadcasters around the world now adopting UHD and HD formats that operate at higher frequencies and deliver UHD and 3G videos, performance and reliability of critical video circuits is vital for ensuring a crisp, clear UHD and HD pictures.

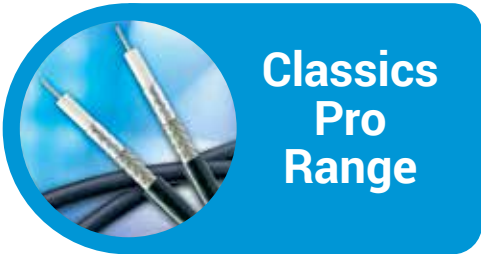
Recognized and recommended throughout the broadcast industry by equipment manufacturers, integrators and end users, Belden Classics Pro precision video cables set the standard in UHD and HD applications around the world. From major sporting events to daily news broadcasts, these cables are more than ready for 6 Gb/s SDI and 3 GB/s SDI.

A Proven Track Record of Performance

With Belden being the first to introduce digital coax for SMPTE-compliant SDI interfaces, the Classics Pro range of cables has a proven 25-year track record of quality and consistency. When these video cables are specified, broadcasters know there will be no cabling issues and the system will work.

Exceeds industry standards with longer lengths possible for 6G and 3G delivery

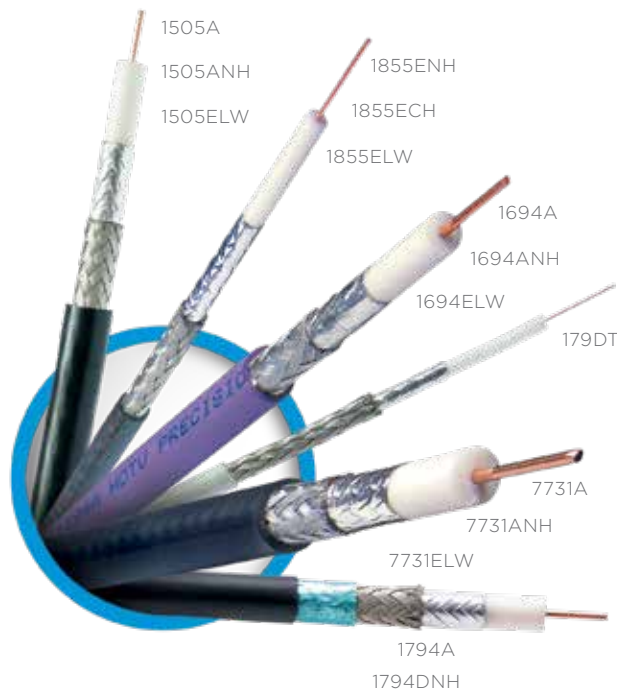
- Measured at 75 Ohms to 4.5 GHz for 1080p/50 HD applications
- Measured at 75 Ohms to 6 GHz for UHDTV1 and UHDTV2 applications
- Better return loss, attenuation and impedance deliver true HD performance
- PVC and LSZH jacket
- PVC version is UL rated CMR and C(UL) CMG FT4
- IEC 60332-3-24 for versions - ANH, -DNH and -ECH
- CPR Europe: Cca rated version - ELW



For a Wide Range of Environments

Available in halogen-free, direct burial and UV-resistant, Belden Classics Pro cables come in several sizes, types and colors to support a wide range of distances and applications - from bundled versions and long distance options, to smaller short distance cables that save space and weight.

From the studio and the stage, to the outdoor broadcasting vehicles, Belden Installable Performance™ ensures that Classics Pro video cables are robust to stand up to the rigors of all broadcasting environments.



Easy Connect Pro Video Cables

Often there is a need for cost-effective video circuits that maintain superior performance and offer fast easy termination, allowing broadcast studios to get up and running as quickly as possible.

Ideal in 3Gb/s and 6Gb/s SDI applications, Easy Connect Pro cables offer superior performance while enabling faster broadcast deployments.

Competitive Performance

Ideal for use in 3Gb/s and 6Gb/s SDI applications, Belden Easy Connect Pro cables feature our Duobond® II shield technology with laminated shielding tape and an extra layer of heat-sensitive adhesive that bonds the foil shield to the dielectric core for 100% coverage and superior shield protection against interference.

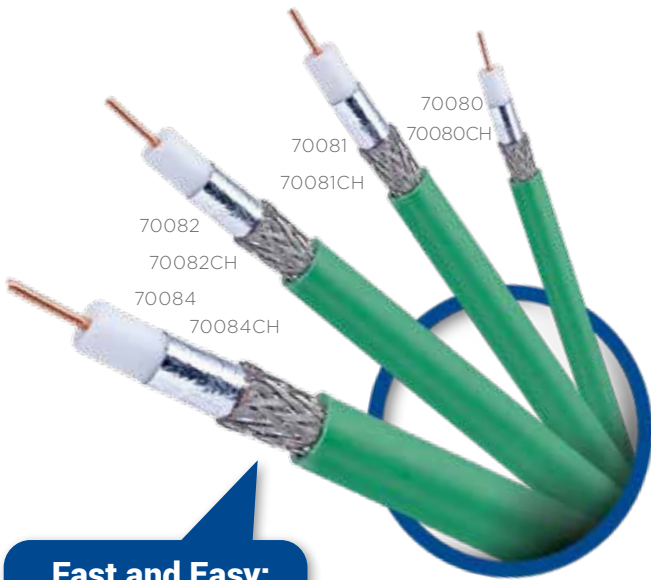
- Easy, faster cable termination thanks to Duobond® II Technology
- Compatibility with Belden 1-piece HD compression connectors at both ends saves significant installation time and costs.
- Measured at 75 Ohms to 4.5 GHz for 1080p/50 HD applications
- Measured at 75 Ohms to 6 GHz for UHDTV1 and UHDTV2 applications
- PVC and LSZH jacket
- IEC 60332-3-24 for versions - CH
- CPR Europe: Dca rated for versions - CH



Faster Development

The bonded foil construction of the Easy Connect Pro cables offers quick and easy terminations for faster broadcast deployments while maintaining optimum tensile strength.

UV-resistant for indoor and outdoor use, Easy Connect Pro cables are available in standard low-smoke, no halogen versions or to meet IEC 60332-3-24 standards for flame spread. They come in 14, 18, 20 and 22 AWG sizes for a variety of distances.



Fast and Easy:

No need to remove the foil during termination.

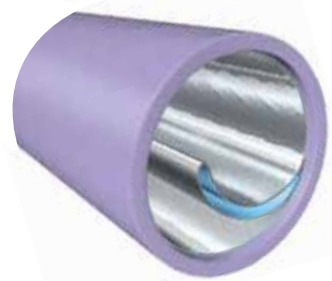
EMC Pro Video Cables

With radio frequency signal quality declining by roughly one decibel per year as the spectrum becomes increasingly crowded, cancelling out electromagnetic noise from external sources has become more vital than ever.

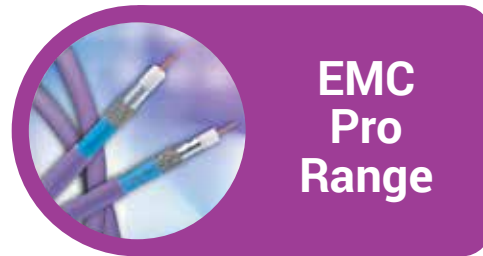
For use in high-quality analog and digital video circuits, Belden EMC Pro range of low loss video cables is the first and only in the professional broadcast market with Class A+ screening performance.

Exclusive Duobond Plus® Shielding

Engineered for high screening attenuation and low transfer impedance, EMC Pro cables feature Belden's innovative Duobond Plus® design – an outer foil layer with a unique shorting fold that provides metal-to-metal contact to improve electromagnetic compatibility (EMC) and high frequency performance.



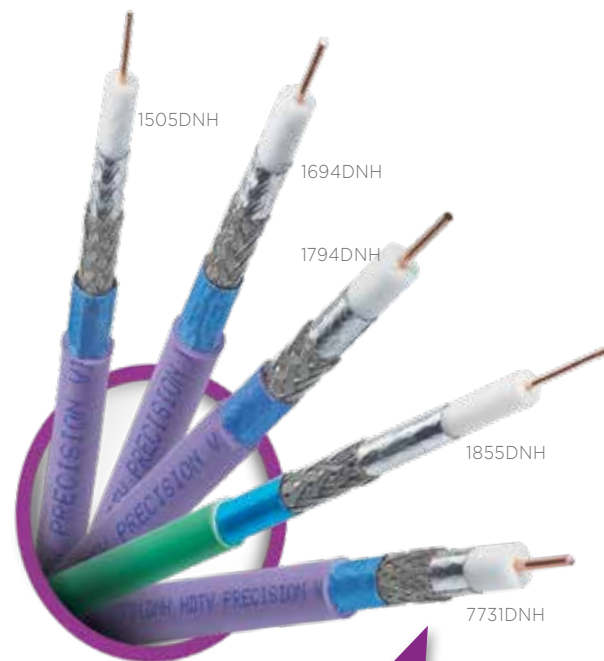
- Allows for higher frequencies and increased speeds to support the latest HD applications
- Delivers the effects of a solid metal conduit to cancel out noise from external sources
- Prevents slot openings in the shield to eliminate signal egress or ingress
- Measured at 75 Ohms to 4.5 GHz for 1080p/50 HD applications
- Measured at 75 Ohms to 6 GHz for UHDTV1 and UHDTV2 applications
- LSZH jacket
- IEC 60332-3-24
- CPR Europe: Dca



Cost Savings and ROI

Belden EMC Pro video cables are easy to deploy with simple connectivity. Compatibility with Belden 1-piece HD compression connectors at both ends saves significant installation time and costs.

Physically robust for a longer life span, EMC Pro cables offer improved ROI and superior future proof capabilities. With Belden Installable Performance™, they substantially improve system uptime with consistently high performance both before and after the installation.



Fast and Easy:
No need to remove the foil during termination.

Belden's Ultra-High-Definition and High-Definition BNC Broadcast Connectors

For professional broadcast video circuits, connectors should be invisible to the signal performance. Designed specifically for Belden Professional Video Cables, our UHD and HD Brilliance Connectors maximize broadcast signal integrity with unsurpassed return loss that exceeds SMPTE standards, providing excellent headroom and true 75 ohm performance for those instances when Broadcasters need to push the limits.



Belden UHD and HD Brilliance Connectors also offer the fastest, easiest installation in the broadcast industry and feature a durable brass construction with patented compression rings that offer excellent holding force.

- Superior return loss through 6 GHz for HD Brilliance Connectors
- Superior return loss through 12 GHz for UHD Brilliance Connectors
- Holding force exceeding 45 kg, depending on cable type
- Fast installation with 1-piece design
- Easy identification and installation



With three UHD/HD Brilliance Connector platforms to choose from, it's easy to find the right solution for your professional broadcast needs.

BEST — 1-Piece Locking HD Brilliance BNC Compression Connectors

Our 1-piece locking HD Brilliance connectors feature a patent-pending locking design with a screwlock collar to physically "lock" the bayonet nut of the BNC in position. This limits movement of the BNC head and creates coaxial alignment from the cable through the BNC center pin, delivering superior return loss performance.

BETTER — 1-Piece UHD and HD Brilliance BNC Compression Connectors

The 1-piece design simplifies and speeds the installation by eliminating loose pins and sleeves. This allows for repeatable and consistent installations every time while delivering return loss performance on par with more time consuming, traditional 3-piece designs.

GOOD — 3-Piece UHD and HD Brilliance BNC Crimp Connectors

The traditional 3-piece design many have come to know over the years, enhanced to fit perfectly with Belden Professional Video Cables, for strong and dependable signal delivery and performance.



Belden Advantages Superior Quality

Like all our products, Belden Professional Video Cables are designed and manufactured to strict quality standards, ensuring consistently high performance that is true to specification. And while some only spot check, Belden tests every meter of cable as it is produced. To ensure best-in-class performance, each and every spool of Belden's Professional Video Cable is 100% sweep tested before it leaves our facility.

Installable Performance™

The specified performance of a cable should hold true even after it's installed, but when cables are pulled, bent or crushed during installation, its physical properties can change and degrade the electrical performance. Careful attention to the following attributes ensures that cable a customer receives from Belden will meet performance specifications after installation. That's what we call Installable Performance™

- **Conductor Adhesion** – With low conductor adhesion, the rigors of installation can break the bond between conductor and insulation, potentially causing the center pin of the BNC connector to be pushed out of the casing. Belden uses a skin/foam insulation process that ensures a high degree of conductor adhesion, and all cables are tested for conductor adhesion to ensure performance.
- **Crush Resistance** – Foam dielectrics are softer than their solid counter parts, and improper handling can cause crushing and deformation of the dielectric, thereby changing the impedance and causing return loss. Belden uses a special proprietary formulation that is more crush-resistant than standard foam polyethylene, making it far less prone to deformation.
- **Return Loss Headroom** – To maintain the SMPTE minimum level for return loss after rigors of installation, cables must start out with plenty of headroom. Belden's guaranteed minimum level of 21 dB up to 4.5 GHz, and 15 dB up to 12 GHz for return loss delivers 6, 8 and 11 dB headroom to account for potential inconsistencies and bad terminations or improper patch bay connections that can also degrade RL.



Sony Selects Belden to Meet SKY Italia's HD Needs



Belden Prepares Spartak's New Stadium to Broadcast 2018 World Cup

Belden (Limited) Lifetime Warranty

When Belden BNC High-Definition Broadcast Brilliance® Connectors are used in conjunction with Belden Professional Video Cables in fixed installations by an approved and certified Belden partner, Belden guarantees that these products will be free from manufacturing and/or material defects during the useable life (maximum 25 years) of the installation.



Secure Supply Chain

As a leader in signal transmission solutions, Belden does not just deliver products of the highest quality; it also meets the needs of its customers around the globe through secure and seamless supply chains. To provide you with our best at all times, our select group of Preferred Partners successfully supply, deploy and optimize Belden solutions for your mission critical broadcast applications.

- Secure supply chain sourced direct from the manufacturer and delivered to your doorstep
- Local access and high availability of Belden inventory
- Fully manufacturer-backed warranty on genuine Belden products
- Trusted Partner with the technical competence to select the right solution for your needs
- World-class pre- and post-sales support by trained and certified service providers



Belden Speeds Norwegian Broadcasting Corporation's Upgrade to HD



2014 World Junior Alpine Skiing Championships



Belden Professional Video Cables and Connectors

					SD	HD	2K	4K	4K	4K		HD-BNC & Mini-DIN 3-Piece		BNC Connectors			Boot	Tools			
Data Rate			143 Mb/s	177 Mb/s	270 Mb/s	1.5 Gb/s	3.0 Gb/s	3 Gb/s Single Link, 6 Gb/s Dual Link, 12 Gb/s Quad Link, 24 Gb/s Octa Link (3 Gb/s per link)	6 Gb/s Single Link, 12 Gb/s Dual Link, 24 Gb/s Quad Link (6 Gb/s per link)	12 Gb/s Single Link, 24 Gb/s Dual Link (12 Gb/s per Link)											
Application			Composite NTSC	Composite PAL	Component SD-SDI	720i - 1080i HD-SDI	1080p 3G-SDI	UHDTV1, UHDTV2 3G-SDI	UHDTV1, UHDTV2 6G-SDI	UHDTV1, UHDTV2 12G-SDI	Advanced EMC	HD-BNC	Mini-DIN	Locking 1-Piece	1-Piece	3-Piece	Boot for 1-Piece	Strip Tool for 1-Piece	Strip Tool for 3-Piece	Compression Tool for 1-Piece	Crimp Tool for 3-Piece
Specification			SMPTE 259M	ITU-R BT.601	SMPTE 259M	SMPTE 292M	SMPTE 424M	SMPTE 425M, ST 2081, ST 2082, ST 2083	ST 2081, ST 2082, ST 2083	ST 2082, ST 2083											
½ clock in MHz			71.5	88.5	135	750	1500	1500	3000	6000											
Max. Attenuation in dB			30	30	30	20	20	40	40	40											
Product Type	Product Range	Product Number																			
0.3/1.4	Classics Pro	179DT / 179DTNH	165	152	125	35	25	49	34	-	—	—	—	179DTBHDL	179DTBHD1	179DTBHD3	—	LDT-MINI-1	PA1248ST	CPLCRBC-BR	BB3PHCT
0.4/1.9	Classics Pro	70078 / 70078CH	233	208	169	47	33	66	46	-	—	—	—	—	70078CHBHD1	—	—	LDT-MINI-1	—	CPLCRBC-BR	—
0.5/2.4	Classics Pro	1865A	209	191	155	41	27	55	-	-	—	—	—	—	—	—	—	—	—	—	—
0.6/2.6	Classics Pro	1855P	301	276	223	58	38	76	51	-	—	—	—	—	—	—	—	—	—	—	—
0.6/2.6	Classics Pro	1855A	312	284	233	65	45	91	62	-	—	A1855AMHD3	A1855ADHD3	1855ABHDL	1855ABHD1	1855ABHD3	SLS-RGB-color	LDT-MINI	PA1248ST	CPLCRBC-BR	BB3PHCT
0.6/2.6	4K Pro	4855R / 4855ANH	325	295	244	67	47	94	66	45	—	A4855RHUHD3	—	—	4855RBUHD1	4855RBUHD3	SLS-RGB-color	LDT-MINI	PA1248ST	CPLCRBC-BR	BB3PHCT
0.6/2.8	Classics Pro	1855ENH / 1855ECH / 1855ELW	349	316	261	74	52	103	71	-	—	—	—	1855ABHDL	1855ABHD1	1855ABHD3-ENH	SLS-RGB-color	LDT-MINI	PA1248ST	CPLCRBC-BR	BB3PHCT
0.6/2.8	EMC Pro	1855DNH	349	316	261	74	52	103	71	-	✓	—	—	1855ABHDL	1855ABHD1	1855ABHD3-ENH	SLS-RGB-color	LDT-MINI	PA1248ST	CPLCRBC-BR	BB3PHCT
0.6/2.8	Easy Connect Pro	70080 / 70080NH / 70080CH	349	316	261	74	52	103	71	-	—	—	—	1855ABHDL	1855ABHD1	1855ABHD3-ENH	SLS-RGB-color	LDT-MINI	PA1248ST	CPLCRBC-BR	BB3PHCT
0.6/2.8	4K Pro	4855ELW	363	328	272	76	54	107	75	51	—	—	—	—	—	—	—	4855UHD3-EL	PA1248ST	—	BB3PHCT
0.8/3.4	Classics Pro	1506A	413	379	309	81	54	108	71	-	—	—	—	1506ABHDL	1506ABHD1	—	SLS-59/6-color	LDT596-250	—	CPLCRBC-BR	—
0.8/3.7	Classics Pro	1505F	358	323	256	67	45	90	60	-	—	A1505AMHD3	A1505ADHD3	1505ABHDL*	1505ABHD1*	1505ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
0.8/3.7	Classics Pro	1505A / 1505ANH / 1505ELW	439	401	330	92	64	127	87	-	—	A1505AMHD3	A1505ADHD3	1505ABHDL	1505ABHD1	1505ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
0.8/3.7	EMC Pro	1505DNH	439	401	330	92	64	127	87	-	✓	A1505AMHD3	A1505ADHD3	1505ABHDL	1505ABHD1	1505ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
0.8/3.7	Easy Connect Pro	70081 / 70081NH / 70081CH	439	401	330	92	64	127	87	-	—	A1505AMHD3	A1505ADHD3	1505ABHDL	1505ABHD1	1505ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
0.8/3.7	4K Pro	4505R / 4505ANH / 4505ELW	449	403	329	94	66	132	92	63	—	A4505RHUHD3	—	—	4505RBUHD1	4505RBUHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
1.0/4.3	Classics Pro	1695A	520	477	383	98	64	128	84	-	—	—	—	1695ABHDL	1695ABHD1	—	SLS-59/6-color	LDT596-250	—	CPLCRBC-BR	—
1.0/4.6	Classics Pro	1694F	445	400	319	85	57	115	69	-	—	A1694AMHD3	A1694ADHD3	1694ABHDL*	1694ABHD1*	1694ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
1.0/4.6	4K Pro	4694F	523	467	373	96	65	130	87	56	—	A4694RHUHD3	—	—	4694RBUHD1	4694RBUHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
1.0/4.6	Classics Pro	1694A / 1694ANH / 1694ELW	546	503	408	113	78	155	105	-	—	A1694AMHD3	A1694ADHD3	1694ABHDL	1694ABHD1	1694ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
1.0/4.6	EMC Pro	1694DNH	546	503	408	113	78	155	105	-	✓	A1694AMHD3	A1694ADHD3	1694ABHDL	1694ABHD1	1694ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
1.0/4.6	Easy Connect Pro	70082 / 70082NH / 70082CH	546	503	408	113	78	155	105	-	—	A1694AMHD3	A1694ADHD3	1694ABHDL	1694ABHD1	1694ABHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
1.0/4.6	4K Pro	4694R / 4694ANH / 4694ELW	580	522	426	118	82	165	114	79	—	A4694RHUHD3	—	—	4694RBUHD1	4694RBUHD3	SLS-59/6-color	LDT596-250	PA1248ST	CPLCRBC-BR	BB3PHCT
1.3/5.7	Classics Pro	1794A	694	633	519	143	97	194	132	-	✓	—	—	—	1794ABHD1	—	—	SDT7-250	—	CPLCRBC1794	—
1.3/5.7	EMC Pro	1794DNH	694	633	519	143	97	194	132	-	✓	—	—	—	1794ABHD1	—	—	SDT7-250	—	CPLCRBC1794	—
1.3/5.7	4K Pro	4794R / 4794ANH / 4794ELW	680	623	523	151	105	209	144	98	✓	—	—	—	4794RBUHD1	4794RBUHD3	—	SDT7-250	—	CPLCRBC1794	—
1.6/7.0	Classics Pro	7732A	785	712	572	137	86	172	108	-	—	—	—	—	FSNS11HBNCP-25	—	—	SDT11-250	—	SNSUNI	—
1.6/7.2	Classics Pro	7731A / 7731ANH / 7731ELW	851	796	637	177	119	238	161	-	—	—	—	—	FSNS11QHBNC-25	A7731ABHD3	—	SDT11-250	—	SNSUNI	—
1.6/7.2	EMC Pro	7731DNH	851	796	637	177	119	238	161	-	✓	—	—	—	FSNS11QHBNC-25	A7731ABHD3	—	SDT11-250	—	SNSUNI	—
1.6/7.2	Easy Connect Pro	70084 / 70084NH / 70084CH	851	796	637	177	119	238	161	-	—	—	—	—	FSNS11QHBNC-25	A7731ABHD3	—	SDT11-250	—	SNSUNI	—
1.6/7.2	4K Pro	4731R / 4731ANH / 4731ELW	861	808	649	182	126	252	173	117	—	—	—	—	—	4731RBUHD3	—	—	—	—	—

- Most cables are available in multiple (up to 10) different colors.
- Flex versions of Belden Classics Pro Range feature a stranded conductor and double braid for more flexibility.

* Attention to keep the (compacted) stranded conductor round, when inserting into center pin.



About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.



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