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**Coaxial Cables for  
Broadband Communication Networks**  
*European Edition*

# Belden Coaxial Cables for Broadband

## Dependable Solutions in Cabling

### *Better by design*

Our strategic objective is to provide our customers with superior solutions for their present and future wire and cable needs. Accordingly, every solution we devise is based on performance, innovation and reliability – the three cornerstones of Belden's business strategy. The success of this commitment to deliver dependable solutions can be gauged by the many world-famous companies that use our products.



Some of our customers see the superior performance of our products in their industry-leading standards, which include VDE, KEMA, ÖVE, UL, CSA and HAR product approvals. Others point to the international specifications and standards, ranging from EN50117, RS-485 and IEC332-3C to TIA/EIA, ISO/IEC 11801, and many more besides. Our products are often called 'future-proof', meaning that the specifications exceed international requirements, with the aim of extending the product's useful life and reducing the replacement rate.



Over the years, Belden has become an international byword for premium quality and reliability, an accolade for excellence earned through decades of dedication to meeting the highest industry standards. Reducing system cost and maintenance are direct, long-term benefits of the ultra long life expectancy of Belden products. It's why our cables are used in some of the largest metropolitan communication networks in the world, like Amsterdam, Vienna and other European cities. And why many industrial installations with 24-hour continuous operation rely on the proven high quality of Belden cables.



Belden's commitment to innovation has historically fuelled new growth for industry players. It has also earned Belden global innovation leadership that is constantly driven by the Belden Engineering Centres. For instance with Duobond®, Flamarrest®, French Braid™ and MediaTwist®. Another yardstick for measuring the success of our novel products are the many patents we hold. But the ultimate criterion is the fitness for use of the products we supply to our customers.

### *A long history of innovation*

For the past 100 years, Belden has been an acknowledged front-runner in the wire and cable industry, developing novel technologies and processes for the manufacture of innovative wire and cable products. Products that keep our customers at the forefront of new developments in their chosen field.

Starting in 1902, when the company was founded in Chicago, Belden has consistently pioneered breakthrough technologies and set new industry standards. This trend was set with early successes like Belden-amel insulation (1905) and the introduction of the soft rubber plug in 1927. Ever since, Belden has been an industry innovator, conceiving and developing special applications in cabling, shielding and jacketing. All focused on customer needs. All clearly establishing Belden's leadership in wire and cable technology.

### *Global player*

The company's successful growth strategy in the 1990s culminated in 1999 with the purchase of Cable Systems International, the largest specialty telecom cable facility in the world. Other capabilities were created by numerous acquisitions in Austria, Australia, Germany, Hungary, the USA and the Netherlands, where Belden has its European headquarters and a large R&D Centre and manufacturing facility. Apart from Europe, Belden's worldwide presence

includes marketing and sales organizations in Asia Pacific, Latin America and the Middle East.

Today, Belden is a global player in the wire and cable industry, designing, manufacturing and marketing specialty cable, such as copper, and optical fibre cable for electrical, electronic and communications equipment. Reliable products that help Belden's customers keep pace with the shifting dynamics of these fast-moving markets.

### *Fitness for use*

Belden's fitness for use philosophy goes beyond the familiar 'design for operability' and 'customer-centric' concepts and provides a strategic approach to customer support. Besides taking into consideration the hands-on needs of the installers and users of our products, Belden's dynamic approach addresses concerns that have traditionally been viewed as falling outside the scope of customer service and support.

### *High value*

Belden's fitness for use approach embraces elements of early supplier involvement, co-makership and concurrent engineering. Yet it is more than that. At Belden, fitness for use puts all the customer's interests first. It spans the development track, from concept to product development and production. And every step of the way, it focuses on the financial aspects of production, to incorporate cost-reducing measures for the hands-on users of our products.

Fitness for use provides our customers with the ideal product for their individual processes and applications. Custom-made products or standard Belden products with customized adjustments. Optimal products at reasonable cost. Products that have high value for the customer.

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# Communication Networks

## Dependable Solutions in Cabling

### *European manufacturing operations*

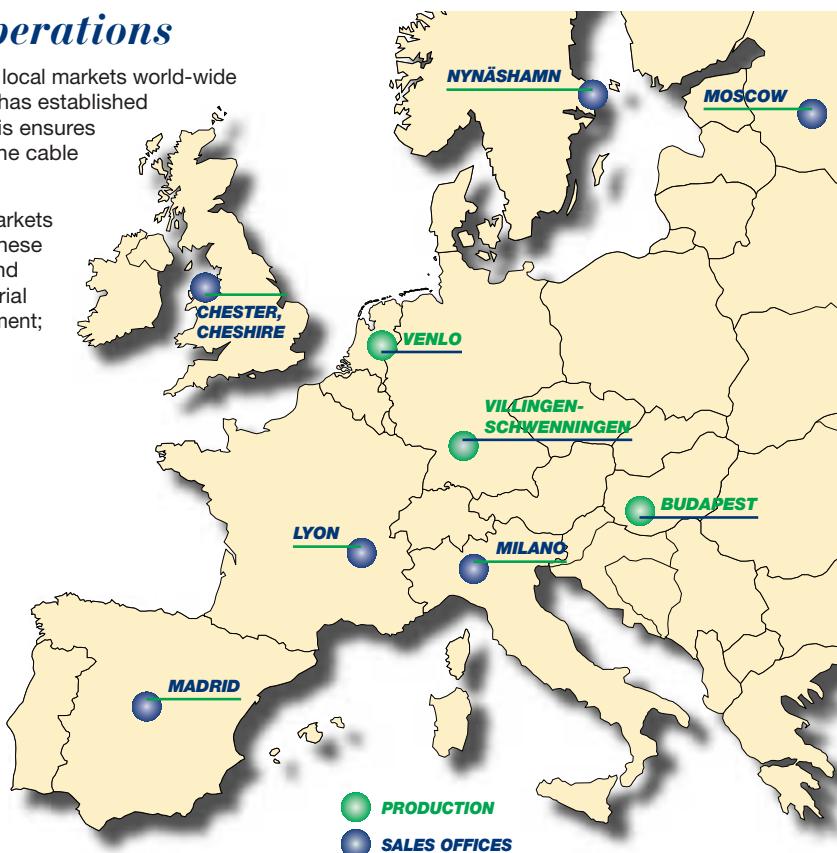
As Belden's global business plans call for a commitment to local markets world-wide and a thorough understanding of local dynamics, Belden has established a very significant presence in core European markets. This ensures that appropriate solutions can always be found to meet the cable and wire needs of our European customers.

Belden has the largest range of cable products in all the markets we serve. Dedicated products matched to local needs. These include over 10.000 products for computer networking and computer equipment; for telecommunications and industrial instrumentation and control; for broadcasting and entertainment; and for cable television and electrical equipment, mainly based on copper conductors or optical fibres.

### *'Think global, act local'*

With European sales accounting for almost a quarter of Belden's worldwide turnover of US\$ 1.1 billion, Belden has clearly demonstrated the success of its 'Think global, act local' approach. And with its 1000-strong workforce across the length and breadth of Europe – and sales offices from Moscow to Madrid and from Stockholm to Dubai – Belden has a unique *local* capability to understand customers' problems. And provide the answer.

Belden's European headquarters and manufacturing base is in the Netherlands, where the company also has its European Engineering Centre. From here, Belden has easy access to Europe's top grade raw materials and is able to attract and retain highly trained personnel for its multinational workforce. From here, too, Belden's specialists offer tailor-made support to our rapidly growing European customer base. Specialists committed to providing optimal technical solutions, with additional expertise that helps our customers control their manufacturing processes better and uniquely simplify their cable installation work.



### *Detailed brochures*

Full-colour brochures are available on the extensive range of Belden products:

- Digital telephony cables
- Shielded and non-shielded LAN cables
- Multi-conductor cables
- Optical fibre cables
- Audio/video cables
- Coaxial broadband cables
- Electrical cables

To request detailed brochures, datasheets on our product lines and the extensive Belden Master Catalog, please contact your local Belden representative or send an e-mail to [sales.info@belden.nl](mailto:sales.info@belden.nl)



USA



Germany



The Netherlands

# Belden Coaxial Cables for Broadband

## Technical Information

### Physical foam coaxial product

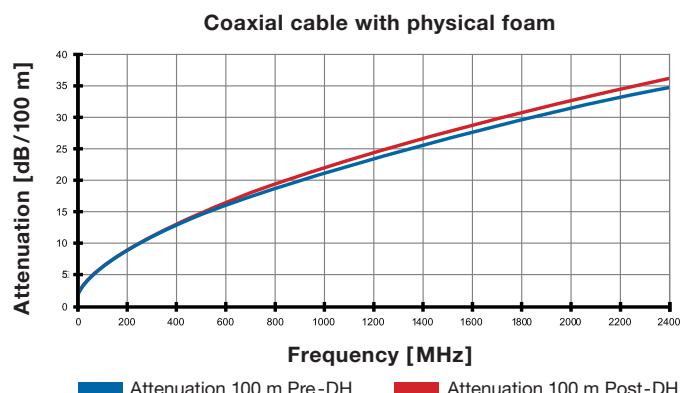
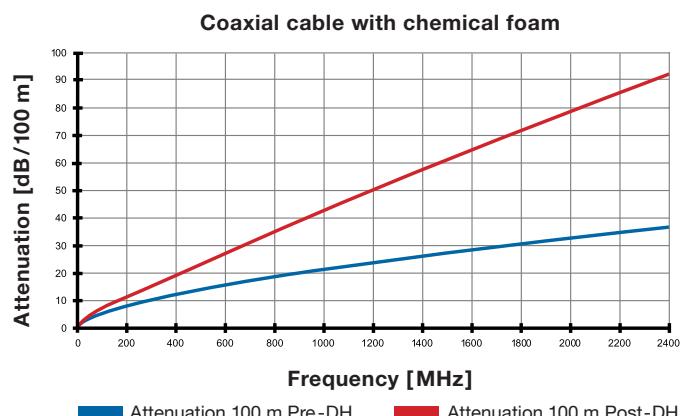
Existing coaxial cables consist of a chemically foamed dielectric, which is highly susceptible to moisture. Belden strives to produce cables with optimal dielectric qualities. During the extrusion process the dielectric material (polyethylene) is mixed with inert nitrogen gas using advanced production techniques. This results in a physical foamed dielectric that meets the most stringent international quality standards.

**The most important advantages of the physically foamed dielectric are:**

- Unsusceptible to moisture
- Watertight
- Mechanically robust
- Stable attenuation up to at least 3 GHz
- Thinner, more flexible and easier to install cables.

A damp heat test is defined in the IEC standard 68-2 part 3. The results reproduce the influence of moisture. After the damp heat test the attenuation must not have increased by more than 5 % in respect to the pre-test value. The two graphics show the results of this test for the Belden physically and chemically foamed cables.

### Physical versus chemical



### Halogen-free

**Our halogen-free coaxial cables satisfy the requirements of the most important international standards:**

Material: HD 624  
Flammability: IEC 60332-1, -2 or 3C  
Corrosivity: HD 602

In comparison to products containing halogens, this offers considerable advantages: **Less impairment to vision, minimal poisonous gases, no release of highly caustic acids, more safety for man, nature and materials.**

### Belden cable shield options

#### Duofoil

This shield type consists of an inner layer of Duofoil, which is a laminated tape of foil/film/foil, and an outer braid with one of various different coverages.

#### Duobond® II (Foil/Braid)

This shield type includes an inner layer of Duobond® II, which is a laminated tape of foil/film/foil, bonded to the dielectric with a layer of adhesive. This foil shield provides 100 % coverage and insures maximum shield protection. Bonded tape eliminates foil push-back, makes cable termination easier and keeps moisture and dirt away from the insulation if the jacket should ever be ruptured. Bonded foil is a Belden innovation. In addition to the foil tape, an outer braid with one of various different coverages is applied for greater protection against interference and to increase the overall tensile strength.

#### Duobond® III (Tri-shield)

This shielding configuration uses the Duobond® II design plus a surrounding layer of Duofoil. Duofoil is a laminated tape of foil/film/foil. The extra layer of foil in this Tri-shield improves shield reliability and provides an additional interference barrier.

#### Duobond Plus® (DB+)

Duobond Plus® consists of a Duobond® II foil tape surrounded by a braid plus an outer layer of foil featuring a unique shorting fold which creates the effect of a solid metal conduit.

This shorting fold provides a metal-to-metal contact, which improves the high frequency performance of the cable. This fold prevents a slot opening from being created in the shield, thereby preventing signal egress or ingress. In addition, the outer foil is bonded to the jacket, making stripping and connectorising easier. Duobond Plus® is a Belden innovation.



#### Duobond® IV (Quad shield)

Duobond® IV adds a second outer layer of braid to the foil/braid/foil (Tri-shield) design, providing a four-layered shield. Duobond® IV's extra layer of braid shield provides improved strength and durability.

# Communication Networks

## Belden Quality

### *ISO 9001*

Belden is committed to sustaining an uncompromising performance in everything it does. From concept and design through manufacture and delivery of the high-quality products our customers need. Products stamped with the Belden hallmark of reliability and durability.

Belden uses statistical process control methods, not only to maintain the required specifications but also to continually improve its products. All Belden products are comprehensively tested before being shipped to the customer, and guaranteed to provide years of faultless performance.

Sustained customer benefits like these call for an uncompromising approach to quality. A commitment to quality which is documented by our approvals and certifications. These include ISO 9001 certification of all Belden development plants and manufacturing facilities – international accreditation, in fact, of all the company's quality processes.



### *Prevention of fire hazard*

Belden's concept of fire safety goes far beyond what is required by international norms. As a result, our products provide superior performance under the most hostile conditions. One innovation to emerge from Belden's concern with product safety is Flamarrest®, a low-smoke, flame retardant jacketing with outstanding fire shielding capabilities.

A recent Pan-European study shows that all Belden products comply with the stringent flammability standards in force in all Member States of the European Union – including those of major metropolitan public transport systems and airports, where fire protection standards are among the highest in the world.

## *Belden product portfolio*

All Belden CATV coaxial cables comply with the European standard and international quality and safety standards. The products are designed according the international standard IEC 1196 for Radio Frequency Cables and the European standard EN 50117.

If you do not find the product you need in this brochure, we offer the option of special (custom made) cable. Here you can choose between different constructions, jacket colours or other materials etc.

## *Connectors*

For all our products you'll find connectors from the world's leading manufacturers. If you need information about the connector manufacturers, please contact our partners or Belden offices.



## *Stripping tools*

For proper installation of a broadband communication network it is necessary to use the right tools for connectorization. There are stripping tools and connectorization tools on the market which give you the guarantee that the connectors are installed in the right way on the cable. If you need information about stripping tools, please contact our partners or Belden offices.



### *ISO 14001 EMS – Environmental Management System*

Addressing environmental issues correctly is recognized as a high priority, particularly in the industrialized world and not least at Belden. Accordingly, the company makes every effort to minimize the environmental impact of its operations and products.

Recognizing ecological concerns shared by customers and consumers worldwide, from 1999–2001 a working group at Belden's European headquarters in Venlo completed comprehensive preparations for ISO 14001 EMS certification. This environmental management and audit system was implemented and certified in 2001. The progress achieved in the practical implementation of Belden's environmental objectives will be published each year. This will include the measures taken by the company to minimize the environmental impact of Belden's operations, also in respect of (energy) savings in production and novel materials and processes.

# Belden Coaxial Cables for Broadband

## Cable Finder

### 50 OHM

Diameter conductor	Overall diameter sheath	Material jacket	Material dielectric	Type of foil	Braid coverage	DC loop resistance	Attenuation at 100 MHz	Product description	Belden part number	Remarks	Page
mm	mm				%	Ohm / km	dB / 100 m				
0.91	4.95	PVC	Gas injected PE		93	51.00	15.10	RG58	43633		20
0.91	4.95	PVC	Gas injected PE		93	51.00	15.10	RG58	46289		20
1.41	5.40	PE	Gas injected PE	AL-PET-AL	80	32.00	9.30	H155	49225		20
1.41	5.40	PVC	Gas injected PE	AL-PET-AL	80	32.00	9.30	H155	46220		20
2.50	9.80	PE	Gas injected PE	Cu	50	14.20	4.10	H500	49305		21
2.25	10.30	PVC	Solid PE		25	56.30	10.40	RACO 25	43643		20
2.25	10.30	PVC	Solid PE		92	11.50	6.60	RG213	43673		21
2.62	10.30	PVC	Gas injected PE		25	38.50	6.30	H1000	43646		20
2.62	10.30	PE	Gas injected PE	CuPET	85	8.00	4.00	H1000	49056		21
2.62	10.30	PVC	Gas injected PE	Cu	49	12.30	4.00	H1000	46531		21
2.62	10.30	PE	Gas injected PE	Cu	49	12.30	4.00	H1000	49025		21
2.70	10.30	PE	Gas injected PE	CuPET	49	16.50	4.70	H1001	49205		21

### 75 OHM

Diameter conductor	Overall diameter sheath	Material jacket	Material dielectric	Type of foil	Braid coverage	DC loop resistance	Attenuation at 100 MHz	Product description	Belden part number	Remarks	Page
mm	mm				%	Ohm / km	dB / 100 m				
0.58	6.00	PVC	Solid PE		92/92	93.50	11.60	H106	43101		19
0.58	6.00	PVC	Solid PE		92/92	93.50	11.60	H106	43102		19
0.58	6.15	PVC	Solid PE		95	173.00	11.60	RG59	46100		19
0.60	4.15	PVC	Gas injected PE		52	132.00	14.20	H110	43654		19
0.60	5.60	PVC	Solid PE		91	92.50	12.40	H12	43340		19
0.65	4.15	PVC	Gas injected PE	AL-PET-AL	45	92.00	10.00	H123	46479		11
0.65	4.30	LSNH	Gas injected PE	AL-PET-AL	90	72.00	10.00	H123	43091		11
0.65	4.30	PVC	Gas injected PE	AL-PET-AL	90	72.00	10.00	H123	46158		11
0.70	7.20	PVC	Solid PE		93/92	56.00	9.50	H105	46036		19
0.71	6.80	PVC	Solid PE	Cu	60	61.00	8.20	COAX 12	43158		11
0.71	7.10	PE	Solid PE	Cu	60	61.00	8.20	COAX 12	49084		11
0.72	6.80	PVC	Solid PE	AL-PET-AL	35	237.00	8.20	H114	46103		11
0.72	6.80	PVC	Solid PE	AL-PET-AL	65	228.00	8.20	H114	46485		11
0.80	5.00	LSNH	Gas injected PE	AL-PET-AL	75	55.00	7.90	H121	43179		12
0.80	5.00	PE	Gas injected PE	AL-PET-AL	45	75.00	7.90	H121	49302		12
0.80	5.00	PVC	Gas injected PE	AL-PET-AL	75	55.00	7.90	H121	46150		12
0.80	5.00	PVC	Gas injected PE	Cu	45	59.00	7.60	H121	46471		12
0.80	5.00	PVC	Gas injected PE	AL-PET-AL	45	75.00	7.90	H121	46596		12
0.80	5.00	PVC	Gas injected PE	AL-PET-AL	45	75.00	7.90	H121	46978		12
0.80	5.60	PVC	Gas injected PE		91	65.00	10.70	H12A	43346		19
0.80	6.65	LSNH	5 Cell PE	Cu	55	41.00	6.00	H109	46981		13
1.00	6.33	LSNH	5 Cell PE	Cu	55	41.00	6.00	H109	46543		13
1.00	6.33	PE	5 Cell PE	Cu	55	41.00	6.00	H109	49176		13
1.00	6.33	PVC	5 Cell PE	AL-PET-AL	65	47.00	6.00	H109	46366		13
1.00	6.33	PVC	5 Cell PE	Cu	55	41.00	6.00	H109	46420		13
1.00	6.33	PVC	5 Cell PE	AL-PET-AL	40	50.00	6.00	H109	46462		13
1.00	6.65	PVC	5 Cell PE	Cu	55	41.00	6.00	H109	46456		13
1.00	6.65	PVC	5 Cell PE	Cu	55	41.00	6.00	H109	46580		13
1.00	6.80	LSNH	Gas injected PE	Cu	40	41.00	6.00	H125	46117		14

# Communication Networks

## Cable Finder

### 75 OHM

Diameter conductor	Overall diameter sheath	Material jacket	Material dielectric	Type of foil	Braid coverage	DC loop resistance	Attenuation at 100 MHz	Product description	Belden part number	Remarks	Page
mm	mm				%	Ohm / km	dB / 100 m				
1.00	6.80	LSNH	Gas injected PE	AL-PET-AL	70	41.00	6.20	H125	46123		14
1.00	6.80	LSNH	Gas injected PE	AL-PET-AL	40	50.00	6.20	H125	46428		14
1.00	6.80	PE	Gas injected PE	Cu	40	41.00	6.00	H125	49004		14
1.00	6.80	PE	Gas injected PE	AL-PET-AL	70	41.00	6.20	H125	49045		14
1.00	6.80	PE	Gas injected PE	AL-PET-AL	40	50.00	6.20	H125	49196		14
1.00	6.80	PVC	Gas injected PE	Cu	40	41.00	6.00	H125	43087		14
1.00	6.80	PVC	Gas injected PE	Cu	40	41.00	6.00	H125	46005	pair	17
1.00	6.80	PVC	Gas injected PE	AL-PET-AL	40	50.00	6.20	H125	46074	pair	17
1.00	6.80	PVC	Gas injected PE	AL-PET-AL	70	41.00	6.20	H125	46359		14
1.00	6.80	PVC	Gas injected PE	AL-PET-AL	40	50.00	6.20	H125	46401		14
1.00	6.80	PVC	Gas injected PE	AL-PET-AL	40	50.00	6.20	H125	46425		14
1.00	6.80	PVC	Gas injected PE	Cu	40	41.00	6.00	H125	46477		14
1.00	6.90	LSNH	Gas injected PE	AL-PET-AL DB+	50	37.00	6.30	H126	43155		15
1.00	6.90	PE	Gas injected PE	AL-PET-AL DB+	50	37.00	6.30	H126	49053		15
1.00	6.90	PVC	Gas injected PE	AL-PET-AL	50	37.00	6.60	RG6	43089	pair	17
1.00	6.90	PVC	Gas injected PE	AL-PET-AL DB+	50	37.00	6.30	H126	46147		15
1.00	6.90	PVC	Gas injected PE	AL-PET-AL	50	45.00	6.40	RG6	43106		15
1.00	6.90	PVC	Gas injected PE	AL-PET-AL bonded	50	45.00	6.40	RG6	43107		15
1.00	6.90	PVC	Gas injected PE	AL-PET-AL bonded	70	45.00	6.40	RG6	43112		15
1.00	6.90	PVC	Gas injected PE	AL-PET-AL	40	45.00	6.40	RG6	46081		15
1.00	6.90	PVC	Gas injected PE	AL-PET-AL DB+	50	119.00	6.60	RG6	46146		15
1.10	6.80	PE	Gas injected PE	Cu	40	36.50	5.60	H129	49026		16
1.10	6.80	PVC	Gas injected PE	Cu	40	36.50	5.60	H129	46107		16
1.10	6.80	PVC	Gas injected PE	AL-PET-AL	40	43.00	5.80	H129	46111		16
1.20	7.10	LSNH	Gas injected PE	Cu	40	34.50	5.10	PRG7	46594		16
1.20	7.10	PE	Gas injected PE	Cu	40	34.50	5.10	PRG7	49046	pair	17
1.20	7.10	PVC	Gas injected PE	AL-PET-AL	40	39.60	5.30	PRG7	46474		16
1.20	7.10	PVC	Gas injected PE	Cu	40	34.50	5.10	PRG7	46475		16
1.25	8.10	HDPE	Gas injected PE	Cu	50	26.50	4.90	RG7	49038		16
1.25	8.10	PE	Gas injected PE	Cu	50	26.50	4.90	RG7	49032		16
1.25	8.10	PVC	Gas injected PE	Cu	50	26.50	4.90	RG7	43093		16
1.55	10.10	LSNH	Gas injected PE	Cu	50	20.00	3.90	PRG11	46027		10
1.55	10.10	PE	Gas injected PE	Cu	50	20.00	3.90	PRG11	49001		10
1.55	10.10	PE	Gas injected PE	AL-PET-AL	50	22.20	4.10	PRG11	49002		9
1.55	10.10	PE	Gas injected PE	Cu	50	20.00	3.90	PRG11	49006	messenger	10
1.55	10.10	PE	Gas injected PE	Cu	50	20.00	3.90	PRG11	49041	pair	17
1.55	10.10	PE	Gas injected PE	AL-PET-AL DB+	50	18.90	3.90	PRG11	49054		10
1.55	10.10	PVC	Gas injected PE	Cu	50	20.00	3.90	PRG11	46365		10
1.55	10.10	PVC	Gas injected PE	AL-PET-AL	50	22.20	4.10	PRG11	46467		9
1.55	10.10	PVC	Gas injected PE	AL-PET-AL DB+	50	18.90	3.90	PRG11	43154		10
1.61	10.10	LSNH	Gas injected PE	AL-PET-AL	60	19.30	3.90	PRG11	46399		9
1.61	10.10	PVC	Gas injected PE	AL-PET-AL	60	19.30	3.90	PRG11	46118		9
1.61	11.30	PE	Gas injected PE	Cu	70	15.00	3.70	COAX 6	49050		9
1.61	11.30	HDPE	Gas injected PE	Cu	70	15.00	3.70	COAX 6	49051		9
2.23	13.80	HDPE	Gas injected PE	Cu	60	9.00	2.80	COAX 4	49093		8
2.23	13.80	PE	Gas injected PE	Cu	60	9.00	2.80	COAX 4	49031	messenger	8
2.23	13.80	PE	Gas injected PE	Cu	60	9.00	2.80	COAX 4	49307		8
2.23	13.80	PE	Gas injected PE	Cu	60	9.00	2.80	COAX 4	49308		8
2.23	13.80	LSNH	Gas injected PE	Cu	60	9.00	2.80	COAX 4	46057		8
3.38	18.00	PE	Gas injected PE	Cu		4.50	1.80	COAX 3	49048		7
3.38	21.60	PE	Gas injected PE	Cu	60	4.50	1.80	COAX 3	49055		7
3.38	19.80	LSNH	Gas injected PE	Cu	60	4.50	1.80	COAX 3	46171		7
3.38	19.80	PE	Gas injected PE	Cu	60	4.50	1.80	COAX 3	49028		7
3.38	19.80	PE	Gas injected PE	Cu	60	4.50	1.80	COAX 3	49047	messenger	7

# Belden Coaxial Cables for Broadband

## Coaxial Trunk Cables

### COAX 3

Product description	FB20 LSNH	FB20 PE	FB20 CAT	F18 PE	FB21 PE
<b>Electrical performance</b>					
Impedance Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance pF / m	53 ± 3	53 ± 3	53 ± 3	53 ± 3	58 ± 3
Velocity ratio %	84.0	84.0	84.0	84.0	78.0
DC resistance Loop	4.5	4.5	4.5	4.5	4.5
	Inner conductor Ohm / km	1.9	1.9	1.9	1.9
Max. current I <sub>eff.</sub> A	30.0	30.0	30.0	30.0	30.0
Attenuation at 5 MHz dB / 100 m	0.4	0.4	0.4	0.4	0.4
10 MHz dB / 100 m	0.6	0.6	0.6	0.6	0.6
50 MHz dB / 100 m	1.3	1.3	1.3	1.3	1.3
100 MHz dB / 100 m	1.8	1.8	1.8	1.8	1.8
200 MHz dB / 100 m	2.6	2.6	2.6	2.6	2.6
230 MHz dB / 100 m	2.9	2.9	2.9	2.9	2.9
300 MHz dB / 100 m	3.3	3.3	3.3	3.3	3.3
400 MHz dB / 100 m	3.9	3.9	3.9	3.9	3.9
600 MHz dB / 100 m	4.8	4.8	4.8	4.8	4.8
800 MHz dB / 100 m	5.7	5.7	5.7	5.7	5.7
860 MHz dB / 100 m	5.9	5.9	5.9	5.9	5.9
1000 MHz dB / 100 m	6.5	6.5	6.5	6.5	6.5
1350 MHz dB / 100 m	7.7	7.7	7.7	7.7	7.7
1750 MHz dB / 100 m	9.0	9.0	9.0	9.0	9.0
2150 MHz dB / 100 m	10.2	10.2	10.2	10.2	10.2
2400 MHz dB / 100 m	10.9	10.9	10.9	10.9	10.9
Return loss at 5 – 470 MHz dB	> 26.0	> 26.0	> 26.0	> 26.0	> 26.0
470 – 862 MHz dB	> 22.0	> 22.0	> 22.0	> 22.0	> 22.0
862 – 2150 MHz dB	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0
Screening efficiency 30 – 1000 MHz dB	> 100.0	> 100.0	> 100.0	> 100.0	> 100.0



Construction and dimensions	FB20 LSNH	FB20 PE	FB20 CAT	F18 PE	FB21 PE
Material conductor	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor mm	3.38	3.38	3.38	3.38	3.38
Material dielectric	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE
Diameter dielectric mm	14.9 ± 0.2	14.9 ± 0.2	14.9 ± 0.2	14.9 ± 0.2	16.5 ± 0.2
Type of foil Cu	Cu	Cu	Cu	Cu	Cu
Overlap foil mm	5	5	5	5	5
Braiding material	Bare copper	Bare copper	Bare copper		Bare copper
Braid coverage %	60	60	60		60
Diameter outer conductor mm	15.8 ± 0.3	15.8 ± 0.3	15.8 ± 0.3	15.3 ± 0.3	17.6 ± 0.3
Sheath material LSNH	PE	PE	PE	PE	PE
Diameter sheath mm	19.8 ± 0.3	19.8 ± 0.3	19.8 ± 0.3	18.0 ± 0.3	21.6 ± 0.3
Catenary wire			Zinc plated steel wires		
Diameter catenary wire mm			6.9 ± 0.3		
Diameter width coax + catenary mm			30.0 ± 0.4		
Min. setting radius mm	200	200	200	180	220
Max. tensile strength N	1200	1200	6000	1200	2000

Belden part number	46171	49028	49047	49048	49055
Colour	GREY	BLACK GREEN	BLACK	BLACK GREEN	BLACK GREEN
Put-up code	043	043 / 293	043	043 / 293	043
Length / reel meter	700	700 / 1050	700	700 / 1050	700
Total weight kg / km	417	289	312	404	386

# Communication Networks

## Coaxial Trunk Cables

### COAX 4

Product description	FB14 LSNH	FB14 CAT PE	FB14 HDPE	FB14 PE	F14 PE
<b>Electrical performance</b>					
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	54 ± 3	54 ± 3	54 ± 3	54 ± 3
Velocity ratio	%	82.0	82.0	82.0	82.0
DC resistance	Loop	Ohm / km	9.0	9.0	9.0
	Inner conductor	Ohm / km	4.5	4.5	4.5
Max. current	I <sub>eff.</sub>	A	18.0	18.0	18.0
Attenuation at	5 MHz	dB / 100 m	0.6	0.6	0.6
	10 MHz	dB / 100 m	0.9	0.9	0.9
	50 MHz	dB / 100 m	1.9	1.9	1.9
	100 MHz	dB / 100 m	2.8	2.8	2.8
	200 MHz	dB / 100 m	4.0	4.0	4.0
	230 MHz	dB / 100 m	4.4	4.4	4.4
	300 MHz	dB / 100 m	5.1	5.1	5.1
	400 MHz	dB / 100 m	5.9	5.9	5.9
	600 MHz	dB / 100 m	7.4	7.4	7.4
	800 MHz	dB / 100 m	8.8	8.8	8.8
	860 MHz	dB / 100 m	9.2	9.2	9.2
	1000 MHz	dB / 100 m	10.0	10.0	10.0
	1350 MHz	dB / 100 m	11.9	11.9	11.9
	1750 MHz	dB / 100 m	13.9	13.9	13.9
	2150 MHz	dB / 100 m	15.7	15.7	15.7
	2400 MHz	dB / 100 m	16.8	16.8	16.8
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 100.0	> 100.0	> 100.0



<b>Construction and dimensions</b>					
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	2.23	2.23	2.23	2.23
Material dielectric		Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE
Diameter dielectric	mm	10.2 ± 0.2	10.2 ± 0.2	10.2 ± 0.2	10.2 ± 0.2
Type of foil		Cu	Cu	Cu	Cu
Overlap foil	mm	4	4	4	4
Braiding material		Bare copper	Bare copper	Bare copper	Bare copper
Braid coverage	%	60	60	60	60
Diameter outer conductor	mm	11.0 ± 0.3	11.0 ± 0.3	11.0 ± 0.3	11.0 ± 0.3
Sheath material		LSNH	PE	HDPE	PE
Diameter sheath	mm	13.8 ± 0.3	13.8 ± 0.3	13.8 ± 0.3	13.8 ± 0.3
Catenary wire		Zinc plated steel wires			
Diameter catenary wire	mm		5.9 ± 0.3		
Diameter width coax + catenary	mm		21.5 ± 0.4		
Min. setting radius	mm	150	150	150	150
Max. tensile strength	N	400	6000	400	600

<b>Belden part number</b>	<b>46057</b>	<b>49031</b>	<b>49093</b>	<b>49307</b>	<b>49308</b>
Colour	GREEN	BLACK	BLACK	BLACK GREEN	BLACK GREEN
Put-up code	025	042	025	025 / 042	025 / 042
Length / reel	meter	500	500	500 / 1000	500 / 1000
Total weight	kg / km	196	229	170	164

# Belden Coaxial Cables for Broadband

## Coaxial Distribution Cables

		COAX 6		PRG11 AL			
Product description		FB11 PE	FB11 HDPE	PRG11 A AL LSNH	PRG11 A AL PVC	PRG11 AL PVC	PRG11 AL PE
<b>Electrical performance</b>							
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	55 ± 2	55 ± 2	55 ± 2	55 ± 2	55 ± 2	55 ± 2
Velocity ratio	%	81.0	81.0	81.0	81.0	81.0	81.0
DC resistance	Loop	Ohm / km	15.0	15.0	19.3	19.3	22.2
	Inner conductor	Ohm / km	8.7	8.7	8.7	8.7	9.4
Max. current	I <sub>eff.</sub>	A	15.0	15.0	12.0	12.0	10.0
Attenuation at	5 MHz	dB / 100 m	0.8	0.8	0.9	0.9	0.9
	10 MHz	dB / 100 m	1.2	1.2	1.2	1.2	1.3
	50 MHz	dB / 100 m	2.6	2.6	2.8	2.8	2.9
	100 MHz	dB / 100 m	3.7	3.7	3.9	3.9	4.1
	200 MHz	dB / 100 m	5.3	5.3	5.7	5.7	5.9
	230 MHz	dB / 100 m	5.9	5.9	6.1	6.1	6.3
	300 MHz	dB / 100 m	6.8	6.8	6.9	6.9	7.3
	400 MHz	dB / 100 m	7.7	7.7	8.1	8.1	8.6
	600 MHz	dB / 100 m	9.5	9.5	9.9	9.9	10.7
	800 MHz	dB / 100 m	11.1	11.1	11.6	11.6	12.5
	860 MHz	dB / 100 m	11.9	11.9	12.0	12.0	12.9
	1000 MHz	dB / 100 m	12.6	12.6	13.0	13.0	14.2
	1350 MHz	dB / 100 m	14.8	14.8	15.0	15.0	16.8
	1750 MHz	dB / 100 m	17.1	17.1	17.2	17.2	19.5
	2150 MHz	dB / 100 m	19.0	19.0	19.0	19.0	21.9
	2400 MHz	dB / 100 m	20.1	20.1	21.5	21.5	23.4
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 90.0	> 90.0	> 85.0	> 85.0	> 85.0



Construction and dimensions							
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	1.61	1.61	1.61	1.61	1.55	1.55
Material dielectric		Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE
Diameter dielectric	mm	7.55 ± 0.15	7.55 ± 0.15	7.25 ± 0.2	7.25 ± 0.2	7.25 ± 0.2	7.25 ± 0.2
Type of foil		Cu	Cu	AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL
Overlap foil	mm	5	5	5	2	2	2
Braiding material		Bare copper	Bare copper	Annealed tinned copper	Annealed tinned copper	Annealed tinned copper	Annealed tinned copper
Braid coverage	%	70	70	60	60	50	50
Diameter outer conductor	mm	8.2 ± 0.2	8.2 ± 0.2	7.9 ± 0.25	7.9 ± 0.25	7.9 ± 0.25	7.9 ± 0.25
Sheath material		PE	HDPE	LSNH	PVC	PVC	PE
Diameter sheath	mm	11.3 ± 0.3	11.3 ± 0.3	10.1 ± 0.3	10.1 ± 0.3	10.1 ± 0.3	10.1 ± 0.3
Catenary wire							
Diameter catenary wire	mm						
Diameter width coax + catenary	mm						
Min. setting radius	mm	120	120	50	50	50	50
Max. tensile strength	N	300	300	300	300	225	225

Belden part number	49050	49051	46399	46118	46467	49002
Colour	BLACK GREEN	GREEN	GREY	BLACK	BLACK WHITE	BLACK
Put-up code	153 / 242 245	240	242	240 / 242	242	
Length / reel	meter	200 / 500 1000	1000	250	500	250 / 500
Total weight	kg / km	114	119	100	98	78

# Communication Networks

## Coaxial Distribution Cables

Product description	PRG11 CU				PRG11 DB +	
	PRG11 CU LSNH	PRG11 CU PVC	PRG11 CU PE	PRG11 CU PE CAT	PRG11 DB + PVC	PRG11 DB + PE
<b>Electrical performance</b>						
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	55 ± 2	55 ± 2	55 ± 2	55 ± 2	55 ± 2
Velocity ratio	%	81.0	81.0	81.0	81.0	81.0
DC resistance	Loop	Ohm / km	20.0	20.0	20.0	18.9
	Inner conductor	Ohm / km	9.4	9.4	9.4	9.4
Max. current	I <sub>eff.</sub>	A	12.0	12.0	12.0	12.0
Attenuation at	5 MHz	dB / 100 m	0.9	0.9	0.9	0.9
	10 MHz	dB / 100 m	1.2	1.2	1.2	1.2
	50 MHz	dB / 100 m	2.7	2.7	2.7	2.8
	100 MHz	dB / 100 m	3.9	3.9	3.9	3.9
	200 MHz	dB / 100 m	5.7	5.7	5.7	5.7
	230 MHz	dB / 100 m	6.1	6.1	6.1	6.1
	300 MHz	dB / 100 m	7.0	7.0	7.0	7.0
	400 MHz	dB / 100 m	8.2	8.2	8.2	8.2
	600 MHz	dB / 100 m	10.2	10.2	10.2	10.2
	800 MHz	dB / 100 m	12.0	12.0	12.0	12.0
	860 MHz	dB / 100 m	12.5	12.5	12.5	12.5
	1000 MHz	dB / 100 m	13.6	13.6	13.6	13.6
	1350 MHz	dB / 100 m	16.1	16.1	16.1	16.1
	1750 MHz	dB / 100 m	18.7	18.7	18.7	18.7
	2150 MHz	dB / 100 m	21.1	21.1	20.9	20.9
	2400 MHz	dB / 100 m	22.5	22.5	22.5	22.5
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 85.0	> 85.0	> 85.0	> 100.0



Construction and dimensions						
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	1.55	1.55	1.55	1.55	1.55
Material dielectric		Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE
Diameter dielectric	mm	7.25 ± 0.2	7.25 ± 0.2	7.25 ± 0.2	7.25 ± 0.2	7.25 ± 0.2
Type of foil		Cu	Cu	Cu	AL-PET-AL DB +	AL-PET-AL DB +
Overlap foil	mm	2	2	2	2	2
Braiding material		Bare copper	Bare copper	Bare copper	Annealed tinned copper	Annealed tinned copper
Braid coverage	%	50	50	50	50	50
Diameter outer conductor	mm	7.9 ± 0.25	7.9 ± 0.25	7.9 ± 0.25	8.1 ± 0.25	8.1 ± 0.25
Sheath material		LSNH	PVC	PE	PVC	PE
Diameter sheath	mm	10.1 ± 0.3	10.1 ± 0.3	10.1 ± 0.3	10.1 ± 0.3	10.1 ± 0.3
Catenary wire or UTP				Zinc plated steel wires		
Diameter catenary wire	mm				4.6 ± 0.2	
Diameter width coax + catenary	mm				16.2 ± 0.4	
Min. setting radius	mm	100	100	100	100	100
Max. tensile strength	N	225	225	225	4600	250

Belden part number	46027	46365	49001	49006	43154	49054
Colour	GREY	BLACK WHITE	BLACK GREEN	BLACK	BLACK	BLACK
Put-up code	240 / 242	025 240 / 242	025 240 / 242	042 / 091 241 / 242 245	240 / 242	240 / 242
Length / reel	meter	250 / 500	1000 250 / 500	1000 / 1000 250 / 330 500	250 / 500	250 / 500
Total weight	kg / km	117	99	81	135	81

# Belden Coaxial Cables for Broadband

## Coaxial Drop Cables

Product description	H123			COAX 12		H114	
	H123 B AL LSNH	H123 B AL PVC	H123 AL PVC	COAX 12 PVC	COAX 12 PE	H114 A PVC	H114 B PVC
<b>Electrical performance</b>							
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	54 ± 2	54 ± 2	54 ± 2	67 ± 2	67 ± 2	67 ± 2
Velocity ratio	%	84.0	84.0	84.0	66.0	66.0	66.0
DC resistance	Loop	Ohm / km	72.0	72.0	61.0	61.0	237.0
	Inner conductor	Ohm / km	55.0	55.0	45.0	45.0	210.0
Max. current	I <sub>eff.</sub>	A	4.2	4.2	7.1	7.1	4.1
Attenuation at	5 MHz	dB / 100 m	2.7	2.7	1.8	1.8	1.8
	10 MHz	dB / 100 m	4.0	4.0	2.5	2.5	2.9
	50 MHz	dB / 100 m	7.5	7.5	5.7	5.7	5.8
	100 MHz	dB / 100 m	10.0	10.0	8.2	8.2	8.2
	200 MHz	dB / 100 m	13.8	13.8	11.4	11.4	11.8
	230 MHz	dB / 100 m	14.9	14.9	12.2	12.2	12.6
	300 MHz	dB / 100 m	17.2	17.2	14.1	14.1	14.5
	400 MHz	dB / 100 m	19.9	19.9	16.9	16.9	16.9
	600 MHz	dB / 100 m	24.8	24.8	21.0	21.0	20.9
	800 MHz	dB / 100 m	29.0	29.0	24.5	24.5	24.5
	860 MHz	dB / 100 m	30.0	30.0	25.5	25.5	25.7
	1000 MHz	dB / 100 m	32.5	32.5	27.7	27.7	27.9
	1350 MHz	dB / 100 m	37.3	37.3	32.7	32.7	32.9
	1600 MHz	dB / 100 m	40.0	40.0	36.0	36.0	36.2
	1750 MHz	dB / 100 m	42.2	42.2	37.8	37.8	38.1
	2150 MHz	dB / 100 m	47.0	47.0	42.5	42.5	42.8
	2400 MHz	dB / 100 m	50.5	50.5	45.2	45.2	45.5
Return loss at	5 – 470 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0
	470 – 862 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0
	862 – 2150 MHz	dB	> 16.0	> 16.0	> 16.0	> 16.0	> 16.0
Screening efficiency	30 – 1000 MHz	dB	> 85.0	> 85.0	> 85.0	> 75.0	> 85.0

Construction and dimensions							
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper	Copper clad steel	Copper clad steel
Diameter conductor	mm	0.65	0.65	0.65	0.71	0.71	0.72
Material dielectric		Gas injected PE	Gas injected PE	Solid PE	Solid PE	Solid PE	Solid PE
Diameter dielectric	mm	2.9 ± 0.15	2.9 ± 0.15	2.9 ± 0.15	4.6 ± 0.15	4.6 ± 0.15	4.75 ± 0.15
Type of foil		AL-PET-AL	AL-PET-AL	AL-PET-AL	Cu	Cu	AL-PET-AL
Overlap foil	mm	1	1	1	2	2	2
Braiding material		Annealed tinned copper	Annealed tinned copper	Annealed tinned copper	Bare copper	Bare copper	Annealed tinned copper
Braid coverage	%	90	90	45	60	60	35
Diameter outer conductor	mm	3.4 ± 0.15	3.4 ± 0.15	3.4 ± 0.15	5.25 ± 0.2	5.25 ± 0.2	5.45 ± 0.2
Sheath material		LSNH	PVC	PVC	PE	PVC	PVC
Diameter sheath	mm	4.3 ± 0.2	4.3 ± 0.2	4.15 ± 0.2	6.8 ± 0.2	7.1 ± 0.2	6.8 ± 0.2
Min. setting radius	mm	25	25	25	70	70	35
Max. tensile strength	N	33	33	30	35	35	125

Belden part number	43091	46158	46479	43158	49084	46103	46485
Colour	GREEN WHITE	WHITE	BLACK BLUE GREEN GREY RED WHITE	BLACK GREY WHITE	BLACK GREEN	GREY WHITE	WHITE
Put-up code	028	028 / 177	177 / 178 028 / 172	174 / 240 241	174 / 241 242	172 / 040 240	011 / 172 240
Length / reel	meter	500	500 / 100	100 / 250 500 / 200	200 / 1000 1000	100 / 100 500	250 / 100 500
Total weight	kg / km	29.0	28.7	17.8	54.1	49.9	46.6

# Communication Networks

## Coaxial Drop Cables

### H121

Product description	H121 B AL LSNH	H121 B AL PVC	H121 AL PVC	H121 AL PE	H121 AL PVC TWIN	H121 CU PVC
<b>Electrical performance</b>						
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	53 ± 2	53 ± 2	53 ± 2	53 ± 2	53 ± 2
Velocity ratio	%	84.0	84.0	84.0	84.0	84.0
DC resistance	Loop	Ohm / km	55.0	55.0	75.0	75.0
	Inner conductor	Ohm / km	35.0	35.0	35.0	35.0
Max. current	I <sub>eff.</sub>	A	4.4	4.4	4.4	5.6
Attenuation at	5 MHz	dB / 100 m	1.7	1.7	1.7	1.7
	10 MHz	dB / 100 m	3.0	3.0	3.0	2.4
	50 MHz	dB / 100 m	5.6	5.6	5.6	5.3
	100 MHz	dB / 100 m	7.9	7.9	7.9	7.6
	200 MHz	dB / 100 m	11.3	11.3	11.3	10.8
	230 MHz	dB / 100 m	12.3	12.3	12.4	11.6
	300 MHz	dB / 100 m	14.2	14.2	14.2	13.3
	400 MHz	dB / 100 m	16.2	16.2	16.2	15.4
	600 MHz	dB / 100 m	20.0	20.4	20.4	19.1
	800 MHz	dB / 100 m	23.2	23.2	23.2	22.2
	860 MHz	dB / 100 m	24.7	24.7	24.7	23.1
	1000 MHz	dB / 100 m	26.1	26.1	26.1	25.0
	1350 MHz	dB / 100 m	30.7	30.7	30.7	29.4
	1600 MHz	dB / 100 m	33.6	33.6	33.6	32.2
	1750 MHz	dB / 100 m	35.3	35.3	35.3	33.8
	2150 MHz	dB / 100 m	39.4	39.4	39.4	37.8
	2400 MHz	dB / 100 m	41.9	41.9	41.9	40.1
Return loss at	5 – 470 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0
	470 – 862 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0
	862 – 2150 MHz	dB	> 16.0	> 16.0	> 16.0	> 16.0
Screening efficiency	30 – 1000 MHz	dB	> 85.0	> 85.0	> 85.0	> 85.0



### Construction and dimensions

Material conductor		Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	0.8	0.8	0.8	0.8	0.8
Material dielectric		Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE
Diameter dielectric	mm	3.5 ± 0.15	3.5 ± 0.15	3.5 ± 0.15	3.5 ± 0.15	3.5 ± 0.15
Type of foil		AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL	Cu
Overlap foil	mm	2	2	2	2	2
Braiding material		Annealed tinned copper	Annealed tinned copper	Annealed tinned copper	Annealed tinned copper	Bare copper
Braid coverage	%	75	75	45	45	45
Diameter outer conductor	mm	4.1 ± 0.15	4.1 ± 0.15	4.1 ± 0.15	4.1 ± 0.15	4.1 ± 0.15
Sheath material		LSNH	PVC	PVC	PVC	PVC
Diameter sheath	mm	5.0 ± 0.3	5.0 ± 0.3	5.0 ± 0.3	5.0 ± 0.3	5.0 ± 0.3
Min. setting radius	mm	25	25	25	25	50
Max. tensile strength	N	45	45	40	80	40

Belden part number	43179	46150	46978	49302	46596	46471
Colour	WHITE	WHITE	BLACK WHITE	BLACK	WHITE	WHITE
Put-up code	011 / 177 178	011 / 177 178	011 / 028 172 / 177 178	011	011 / 151	011 / 172 177
Length / reel	meter	500 / 100 300	500 / 100 300	500 / 250 100 / 100 300	500	250 / 100
Total weight	kg / km	29.7	29.7	26.8	20.7	49.2
						26.7

# Belden Coaxial Cables for Broadband

## Coaxial Drop Cables

### H109

Product description	H109 B AL PVC	H109 AL PVC	H109 NH (6.65 mm)	H109 PVC	H109 LSF	H109 LSNH	H109 PVC	H109 PE
<b>Electrical performance</b>								
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	56 ± 2	56 ± 2	56 ± 2	56 ± 2	56 ± 2	56 ± 2	56 ± 2
Velocity ratio	%	80.0	80.0	80.0	80.0	80.0	80.0	80.0
DC resistance	Loop	Ohm / km	47.0	50.0	41.0	41.0	41.0	41.0
	Inner conductor	Ohm / km	23.0	23.0	23.0	23.0	23.0	23.0
Max. current	I <sub>eff.</sub>	A	5.0	5.0	5.0	6.0	6.0	6.0
Attenuation at	5 MHz	dB / 100 m	1.3	1.3	1.3	1.3	1.3	1.3
	10 MHz	dB / 100 m	2.0	2.0	2.0	2.0	2.0	2.0
	50 MHz	dB / 100 m	4.2	4.2	4.2	4.2	4.2	4.2
	100 MHz	dB / 100 m	6.0	6.0	6.0	6.0	6.0	6.0
	200 MHz	dB / 100 m	8.7	8.7	8.7	8.7	8.7	8.7
	230 MHz	dB / 100 m	9.8	9.8	9.8	9.8	9.8	9.8
	300 MHz	dB / 100 m	11.3	11.3	11.3	11.3	11.3	11.3
	400 MHz	dB / 100 m	12.5	12.5	12.5	12.5	12.5	12.5
	600 MHz	dB / 100 m	15.6	15.6	15.6	15.6	15.6	15.6
	800 MHz	dB / 100 m	18.3	18.3	18.3	18.3	18.3	18.3
	860 MHz	dB / 100 m	18.9	18.9	18.9	18.9	18.9	18.9
	1000 MHz	dB / 100 m	20.7	20.7	20.7	20.7	20.7	20.7
	1350 MHz	dB / 100 m	24.2	24.2	24.4	24.2	24.2	24.2
	1600 MHz	dB / 100 m	26.9	26.9	26.9	26.9	26.9	26.9
	1750 MHz	dB / 100 m	28.3	28.3	28.3	28.3	28.3	28.3
	2150 MHz	dB / 100 m	31.8	31.8	31.8	31.8	31.8	31.8
	2400 MHz	dB / 100 m	33.9	33.9	33.9	33.9	33.9	33.9
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 85.0	> 85.0	> 75.0	> 75.0	> 75.0	> 75.0



Construction and dimensions								
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Material dielectric		5 Cell PE	5 Cell PE	5 Cell PE	5 Cell PE	5 Cell PE	5 Cell PE	5 Cell PE
Diameter dielectric	mm	4.7 ± 0.15	4.7 ± 0.15	4.7 ± 0.15	4.7 ± 0.15	4.7 ± 0.15	4.7 ± 0.15	4.7 ± 0.15
Type of foil		AL-PET-AL	AL-PET-AL	Cu	Cu	Cu	Cu	Cu
Overlap foil	mm	2	2	2	2	2	2	2
Braiding material		Annealed tinned copper	Annealed tinned copper	Bare copper				
Braid coverage	%	65	40	55	55	55	55	55
Diameter outer conductor	mm	5.2 ± 0.20	5.2 ± 0.20	5.2 ± 0.20	5.2 ± 0.20	5.2 ± 0.20	5.2 ± 0.20	5.2 ± 0.20
Sheath material		PVC	PVC	LSNH	PVC	PVC	PVC	PE
Diameter sheath	mm	6.33 ± 0.2	6.33 ± 0.2	6.65 ± 0.2	6.33 ± 0.2	6.65 ± 0.2	6.33 ± 0.2	6.33 ± 0.2
Min. setting radius	mm	35	35	70	40	40	70	40
Max. tensile strength	N	55	55	55	55	55	55	55

Belden part number	46366	46462	46981	46420	46456	46543	46580	49176
Colour	BLACK WHITE	BLACK WHITE	BLACK WHITE	WHITE	BLACK	BLACK GREY WHITE	BLACK BROWN WHITE	BLACK
Put-up code	028 / 172 179	028 / 172	240	092 / 172	240	240	011 106 / 240	240
Length / reel	meter	250 / 100 250	250 / 100	500	500 / 100	500	250 250 / 500	500
Total weight	kg / km	43.0	38.5	47.0	41.0	46.0	41.0	49.4
								41.0

# Communication Networks

## Coaxial Drop Cables

### H125

Product description	H125 AL LSNH	H125 CH LSNH	H125 AL PVC	H125 CH PVC	H125 AL PE	H125 CH PE	H125 AL PVC TWIN	H125 CU LSNH	H125 CU PVC	H125 CU PE	H125 CU PVC TWIN
<b>Electrical performance</b>											
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	55 ± 3	55 ± 3	55 ± 3	55 ± 3	55 ± 3	55 ± 3	55 ± 3	55 ± 3	55 ± 3	55 ± 3
Velocity ratio	%	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0	81.0
DC resistance	Loop	Ohm / km	50.0	41.0	50.0	41.0	50.0	41.0	50.0	41.0	41.0
	Inner conductor	Ohm / km	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
Max. current	I <sub>eff.</sub>	A	6.0	6.0	6.0	6.0	6.0	6.0	7.4	7.4	7.4
Attenuation at	5 MHz	dB / 100 m	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
	10 MHz	dB / 100 m	2.2	2.2	2.2	2.2	2.2	2.2	1.8	1.8	1.8
	50 MHz	dB / 100 m	4.4	4.4	4.4	4.4	4.4	4.4	4.2	4.2	4.2
	100 MHz	dB / 100 m	6.2	6.2	6.2	6.2	6.2	6.2	6.0	6.0	6.0
	200 MHz	dB / 100 m	8.9	8.9	8.9	8.9	8.9	8.9	8.6	8.6	8.6
	230 MHz	dB / 100 m	9.2	9.2	9.2	9.2	9.2	9.2	9.1	9.1	9.1
	300 MHz	dB / 100 m	10.9	10.9	10.9	10.9	10.9	10.9	10.5	10.5	10.5
	400 MHz	dB / 100 m	12.9	12.9	12.9	12.9	12.9	12.9	12.4	12.4	12.4
	600 MHz	dB / 100 m	16.0	16.0	16.0	16.0	16.0	16.0	15.4	15.4	15.4
	800 MHz	dB / 100 m	18.8	18.8	18.8	18.8	18.8	18.8	18.0	18.0	18.0
	860 MHz	dB / 100 m	19.1	19.1	19.1	19.1	19.1	19.1	18.3	18.3	18.3
	1000 MHz	dB / 100 m	21.2	21.2	21.2	21.2	21.2	21.2	20.4	20.4	20.4
	1350 MHz	dB / 100 m	25.1	25.1	25.1	25.1	25.1	25.1	24.1	24.1	24.1
	1600 MHz	dB / 100 m	27.7	27.7	27.7	27.7	27.7	27.7	26.7	26.7	26.7
	1750 MHz	dB / 100 m	29.0	29.0	29.0	29.0	29.0	29.0	27.9	27.9	27.9
	2150 MHz	dB / 100 m	32.7	32.7	32.7	32.7	32.7	32.7	31.4	31.4	31.4
	2400 MHz	dB / 100 m	34.8	34.8	34.8	34.8	34.8	34.8	33.5	33.5	33.5
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 85.0	> 90.0	> 85.0	> 90.0	> 85.0	> 85.0	> 85.0	> 85.0	> 85.0

Construction and dimensions											
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper	Bare copper					
Diameter conductor	mm	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Material dielectric		Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE					
Diameter dielectric	mm	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15	4.8 ± 0.15
Type of foil		AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL	Cu	Cu	Cu
Overlap foil	mm	2	2	2	2	2	2	2	2	2	2
Braiding material		Annealed tinned copper	Bare copper	Bare copper	Bare copper	Bare copper					
Braid coverage	%	40	70	40	70	40	70	40	40	40	40
Diameter outer conductor	mm	5.34 ± 0.2	5.4 ± 0.2	5.34 ± 0.2	5.5 ± 0.2	5.34 ± 0.2	5.5 ± 0.2	5.34 ± 0.2	5.24 ± 0.2	5.24 ± 0.2	5.24 ± 0.2
Sheath material		LSNH	LSNH	PVC	PVC	PE	PVC	PE	PVC	PE	PVC
Diameter sheath	mm	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2
Min. setting radius	mm	35	35	35	35	35	35	70	70	70	70
Max. tensile strength	N	55	60	55	60	55	60	55	55	55	55

Belden part number	46428	46123	46401	46359	49196	49045	46425	46117	46477	49004	43087
Colour	GREY	GREY WHITE	BLACK BROWN GREY WHITE	WHITE	BLACK	BLACK	BLACK	GREY	BLACK BROWN CRÈME GREY WHITE	BLACK	WHITE
Put-up code	172 / 240	172 / 240	011 / 179 040 / 172 174 / 240 028 / 178	011 / 172 179 / 240	011 / 040 172 / 240	240	240	240	011 / 422 028 / 172 240 / 241	011 / 172 240	240
Length / reel	meter	100 / 500	100 / 500	250 / 250 100 / 100 200 / 500 200 / 150	250 / 100 100 / 500	500	250	500	250 / 91.4 200 / 100 500 / 1000	250 / 100 500	250
Total weight	kg / km	45.0	49.0	48.0	47.0	36.0	41.0	86.3	45.6	46.0	39.0
											92.0

# Belden Coaxial Cables for Broadband

## Coaxial Drop Cables

Product description	H126			RG6				
	H126 DB + LSNH	H126 DB + PE	H126 DB + PVC	RG6 DB + PVC	RG6cu BF ALT PVC	RG6cu BF ALT PVC	RG6cu ALT PVC	RG6cu AL PVC
<b>Electrical performance</b>								
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	54 ± 2	54 ± 2	54 ± 2	54 ± 2	56 ± 2	56 ± 2	56 ± 2
Velocity ratio	%	82.0	82.0	82.0	82.0	82.0	82.0	82.0
DC resistance	Loop	Ohm / km	37.0	37.0	37.0	45.0	45.0	45.0
	Inner conductor	Ohm / km	23.0	23.0	23.0	23.0	23.0	23.0
Max. current	I <sub>eff.</sub>	A	6.0	6.0	6.0	6.0	6.0	6.0
Attenuation at	5 MHz	dB / 100 m	1.8	1.8	1.8	1.7	1.7	1.7
	10 MHz	dB / 100 m	2.0	2.0	2.0	2.0	2.0	2.0
	50 MHz	dB / 100 m	4.5	4.5	4.5	4.5	4.5	4.5
	100 MHz	dB / 100 m	6.3	6.3	6.3	6.4	6.4	6.4
	200 MHz	dB / 100 m	9.3	9.3	9.3	9.1	9.1	9.1
	230 MHz	dB / 100 m	9.6	9.6	9.6	9.6	9.6	9.6
	300 MHz	dB / 100 m	11.0	11.0	11.0	11.0	11.0	11.0
	400 MHz	dB / 100 m	13.4	13.4	13.4	13.2	13.2	13.2
	600 MHz	dB / 100 m	16.7	16.7	16.7	16.4	16.4	16.4
	800 MHz	dB / 100 m	19.5	19.5	19.5	19.2	19.2	19.2
	860 MHz	dB / 100 m	20.2	20.2	20.2	19.9	19.9	19.9
	1000 MHz	dB / 100 m	22.0	22.0	22.0	21.7	21.7	21.7
	1350 MHz	dB / 100 m	26.0	26.0	26.0	25.6	25.6	25.6
	1600 MHz	dB / 100 m	27.7	27.7	27.7	28.3	28.3	28.3
	1750 MHz	dB / 100 m	29.0	29.0	29.0	29.6	29.6	29.6
	2150 MHz	dB / 100 m	33.0	33.0	33.0	33.3	33.3	33.3
	2400 MHz	dB / 100 m	35.0	35.0	35.0	35.5	35.5	35.5
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 95.0	> 95.0	> 95.0	> 85.0	> 85.0	> 85.0

Construction and dimensions								
Material conductor	Bare copper	Bare copper	Bare copper	Copper clad steel	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor mm	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Material dielectric	Gas injected PE							
Diameter dielectric mm	4.57 ± 0.15	4.57 ± 0.15	4.57 ± 0.15	4.57 ± 0.15	4.57 ± 0.15	4.57 ± 0.15	4.57 ± 0.15	4.57 ± 0.15
Type of foil	AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL	AL-PET-AL bonded	AL-PET-AL bonded	AL-PET-AL	AL-PET-AL
Overlap foil mm	1	1	1	1	1	1	2	2
Braiding material	Annealed tinned copper							
Braid coverage %	50	50	50	50	70	50	50	40
Diameter outer conductor mm	5.4 ± 0.2	5.4 ± 0.2	5.4 ± 0.2	5.5 ± 0.2	5.25 ± 0.2	5.25 ± 0.2	5.25 ± 0.2	5.25 ± 0.2
Sheath material	LSNH	PE	PVC	PVC	PVC	PVC	PVC	PVC
Diameter sheath mm	6.9 ± 0.2	6.9 ± 0.2	6.9 ± 0.2	6.9 ± 0.2	6.9 ± 0.2	6.9 ± 0.2	6.9 ± 0.2	6.9 ± 0.2
Min. setting radius mm	35	35	35	35	35	35	35	35
Max. tensile strength N	55	55	55	570	55	55	55	55

Belden part number	43155	49053	46147	46146	43112	43107	43106	46081
Colour	WHITE	BLACK	BLACK WHITE	WHITE	WHITE	WHITE	BLACK WHITE	BLACK WHITE
Put-up code	179	240	240 / 172 179 / 240	179	028 / 179	028 / 179	179 / 028 172	011 / 172 179 / 261 422
Length / reel meter	250	500	500 / 100 250 / 500	250	200 / 250	200 / 250	250 / 200 100	300 / 100 250 / 250 91.4
Total weight kg / km	49.0	41.2	49.4	49.0	53.5	48.1	47.0	48.5

# Communication Networks

## Coaxial Drop Cables

Product description	H129			PRG7			RG7		
	H129 CU PE	H129 CU PVC	H129 AL PVC	PRG7 AL PVC	PRG7 CU PVC	PRG7 CU LSNH	RG7 CU LSF	RG7 CU PE	RG7 CU HDPE
<b>Electrical performance</b>									
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	54 ± 2	54 ± 2	54 ± 2	54 ± 2	54 ± 2	54 ± 2	54 ± 2	54 ± 2
Velocity ratio	%	82.0	82.0	82.0	83.0	83.0	84.0	82.0	82.0
DC resistance	Loop	Ohm / km	36.5	36.5	43.0	39.6	34.5	26.5	26.5
	Inner conductor	Ohm / km	18.5	18.5	18.5	15.6	15.5	14.5	14.5
Max. current	I <sub>eff.</sub>	A	7.0	7.0	6.0	6.8	8.0	8.0	8.0
Attenuation at	5 MHz	dB / 100 m	1.2	1.2	1.3	1.2	1.1	1.1	1.1
	10 MHz	dB / 100 m	1.7	1.7	1.8	1.6	1.5	1.5	1.5
	50 MHz	dB / 100 m	3.9	3.9	4.1	3.7	3.5	3.4	3.4
	100 MHz	dB / 100 m	5.6	5.6	5.8	5.3	5.1	4.9	4.9
	200 MHz	dB / 100 m	8.0	8.0	8.4	7.6	7.3	7.0	7.0
	230 MHz	dB / 100 m	8.6	8.6	9.0	7.9	7.8	7.5	7.5
	300 MHz	dB / 100 m	9.9	9.9	10.4	9.3	8.9	8.5	8.5
	400 MHz	dB / 100 m	11.6	11.6	12.1	10.9	10.5	10.1	10.1
	600 MHz	dB / 100 m	14.4	14.4	15.1	13.6	13.0	12.5	12.5
	800 MHz	dB / 100 m	16.9	16.9	17.6	15.8	15.2	14.6	14.6
	860 MHz	dB / 100 m	17.6	17.6	18.2	16.4	15.8	15.1	15.1
	1000 MHz	dB / 100 m	19.1	19.1	19.9	17.9	17.1	16.5	16.5
	1350 MHz	dB / 100 m	22.7	22.7	23.6	21.1	20.2	19.5	19.5
	1600 MHz	dB / 100 m	24.9	24.9	26.0	23.1	22.2	21.4	21.4
	1750 MHz	dB / 100 m	26.3	26.3	27.3	24.3	23.4	22.6	22.6
	2150 MHz	dB / 100 m	29.6	29.6	30.7	27.3	26.2	25.3	25.3
	2400 MHz	dB / 100 m	31.5	31.5	32.8	29.1	27.9	27.0	27.0
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 85.0	> 85.0	> 85.0	> 85.0	> 85.0	> 85.0	> 85.0

Construction and dimensions									
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	1.1	1.1	1.1	1.2	1.2	1.2	1.25	1.25
Material dielectric		Gas injected	Gas injected	Gas injected	Gas injected	Gas injected	Gas injected	Gas injected	Gas injected
Diameter dielectric	mm	5.0 ± 0.15	5.0 ± 0.15	5.0 ± 0.15	5.4 ± 0.15	5.4 ± 0.15	5.4 ± 0.15	5.7 ± 0.15	5.7 ± 0.15
Type of foil		Cu	Cu	AL-PET-AL	AL-PET-AL	Cu	Cu	Cu	Cu
Overlap foil	mm	2	2	2	2	2	2	2	2
Braiding material		Bare copper	Bare copper	Annealed tinned copper	Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Braid coverage	%	40	40	40	40	40	50	50	50
Diameter outer conductor	mm	5.44 ± 0.25	5.44 ± 0.25	5.44 ± 0.25	5.84 ± 0.25	5.84 ± 0.25	5.84 ± 0.25	6.3 ± 0.25	6.3 ± 0.25
Sheath material		PE	PVC	PVC	PVC	LSNH	PVC	PE	HDPE
Diameter sheath	mm	6.8 ± 0.2	6.8 ± 0.2	6.8 ± 0.2	7.1 ± 0.3	7.1 ± 0.3	7.1 ± 0.3	8.1 ± 0.3	8.1 ± 0.3
Min. setting radius	mm	70	70	35	35	70	80	80	80
Max. tensile strength	N	70	70	70	80	80	90	90	90

Belden part number	49026	46107	46111	46474	46475	46594	43093	49032	49038
Colour	BLACK	WHITE	BLACK WHITE	BLACK WHITE	BLACK GREY WHITE	GREY	BLACK	BLACK	GREEN
Put-up code	172 / 241	172	172 / 179 241	011 / 172 179	011 / 240 172 / 174	240	241	241	241
Length / reel	meter	100 / 1000	100	100 / 250 1000	250 / 100 250	500	500	500	500
Total weight	kg / km	44.9	50.1	42.2	43.6	46.9	62.5	52.3	52.3

# Belden Coaxial Cables for Broadband

## Composite Cables

Product description	Distribution		DROP			
	PRG11 CU DATADROP PE	H125 CU DATADROP PVC	H125 AL DATADROP PVC	PRG7 CU DATADROP PE	RG6 DB + UNIDROP PVC	
<b>Electrical performance</b>	coax					
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	
Capacitance	pF / m	55 ± 2	55 ± 3	55 ± 3	54 ± 2	
Velocity ratio	%	81.0	81.0	84.0	83.0	
DC resistance	Loop	Ohm / km	20.0	41.0	50.0	
	Inner conductor	Ohm / km	9.4	23.0	23.0	
Max. current	I <sub>eff.</sub>	A	12.0	7.4	6.0	
Attenuation at	5 MHz	dB / 100 m	0.9	1.3	1.4	
	10 MHz	dB / 100 m	1.2	1.8	2.2	
	50 MHz	dB / 100 m	2.7	4.2	4.4	
	100 MHz	dB / 100 m	3.9	6.0	6.2	
	200 MHz	dB / 100 m	5.7	8.6	8.9	
	230 MHz	dB / 100 m	6.1	9.1	9.2	
	300 MHz	dB / 100 m	6.9	10.5	10.9	
	400 MHz	dB / 100 m	8.2	12.4	12.9	
	600 MHz	dB / 100 m	10.2	15.4	16.0	
	800 MHz	dB / 100 m	12.0	18.0	18.8	
	860 MHz	dB / 100 m	12.5	18.3	19.1	
	1000 MHz	dB / 100 m	13.6	20.4	21.2	
	1350 MHz	dB / 100 m	16.1	24.1	25.1	
	1600 MHz	dB / 100 m	17.9	26.7	27.7	
	1750 MHz	dB / 100 m	18.7	27.9	29.0	
	2150 MHz	dB / 100 m	21.1	31.4	32.7	
	2400 MHz	dB / 100 m	22.5	33.5	34.8	
Return loss at	5 – 470 MHz	dB	> 23.0	> 23.0	> 23.0	
	470 – 862 MHz	dB	> 20.0	> 20.0	> 20.0	
	862 – 2150 MHz	dB	> 18.0	> 18.0	> 18.0	
Screening efficiency	30 – 1000 MHz	dB	> 85.0	> 85.0	> 95.0	



Construction and dimensions					
Material conductor		Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	1.55	1.0	1.0	1.0
Material dielectric		Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE
Diameter dielectric	mm	7.25 ± 0.2	4.8 ± 0.15	4.8 ± 0.15	5.4 ± 0.15
Type of foil		Cu	Cu	AL-PET-AL	AL-PET-AL <sup>(1)</sup>
Overlap foil	mm	2	2	2	1
Braiding material		Bare copper	Bare copper	Bare copper	Annealed tinned copper
Braid coverage	%	50	40	40	50
Diameter outer conductor	mm	7.9 ± 0.25	5.24 ± 0.2	5.34 ± 0.2	5.84 ± 0.25
Sheath material		PE	PVC	PVC	PVC
Diameter sheath	B mm	10.1 ± 0.3	6.8 ± 0.2	6.8 ± 0.2	7.1 ± 0.3
	C mm	15.1 ± 0.3	11.8 ± 0.2	11.8 ± 0.2	12.1 ± 0.3
Min. setting radius	mm	100	70	35	70
Max. tensile strength	N	250	55	55	80

Belden part number	49041	46005	46074	49046	43089
Colour	BLACK	BLACK WHITE	WHITE	BLACK	BLACK WHITE
Put-up code	241	241	241	242	241
Length / reel	meter	250	500	500	500
Total weight	kg / km	96.0	63.2	63.0	61.0
					64.0

<sup>(1)</sup> AL-PET (L-folded) bonded to sheath

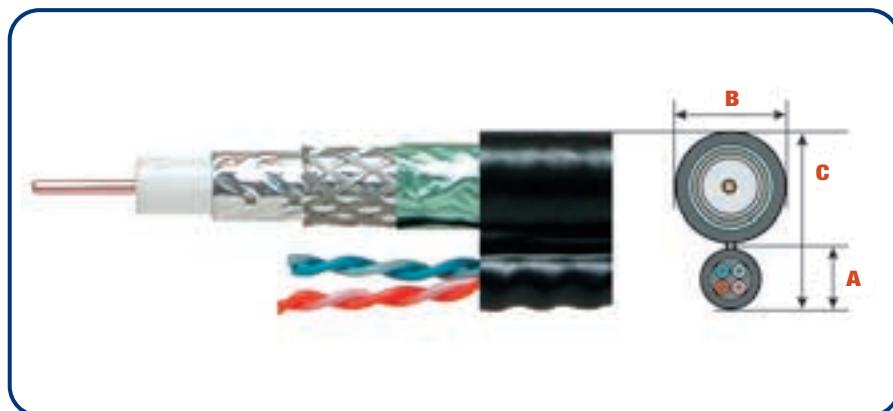
# Communication Networks



## **UTP Information**

UTP

Product description			2 UTP
<b>Electrical performance</b>			pair
Impedance	Ohm		$100 \pm 15$
Capacitance	pF / m		$49 \pm 5$
Velocity ratio	%		67.0
DC resistance	Loop Inner conductor	Ohm / km Ohm / km	94.0
Attenuation at	1 MHz 10 MHz 16 MHz 20 MHz 31.25 MHz 62.5 MHz 100 MHz	dB / 100 m dB / 100 m	2.1 6.6 8.2 9.2 11.8 17.1 22.0
Next	1 MHz 10 MHz 16 MHz  31.25 MHz 62.5 MHz 100 MHz	dB dB dB  dB dB dB	62.0 47.0 44.0  40.0 35.0 32.0
<b>Construction and dimensions</b>			
Material conductor			Bare copper AWG 24
Diameter conductor	mm		0.5
Material insulation			Solid PE
Diameter dielectric	mm		0.9
Number of pairs			2
Colour	Pair 1 Pair 2		WHITE – ORANGE / ORANGE WHITE – BLUE / BLUE
Diameter over sheath	A	mm	$4.6 \pm 0.25$



# Belden Coaxial Cables for Broadband

## Coaxial Connection Cables

### Connection

Product description		H105 PVC	H106 PVC	H106 LSNH	RG59 PVC	H110 PVC	H12 PVC	H12 A PVC
<b>Electrical performance</b>								
Impedance	Ohm	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3	75 ± 3
Capacitance	pF / m	67 ± 2	67 ± 2	67 ± 2	67 ± 2	59 ± 2	66 ± 2	55 ± 2
Velocity ratio	%	66.0	66.0	66.0	66.0	78.0	66.0	80.0
DC resistance	Loop	Ohm / km	56.0	93.5	93.5	173.0	132.0	92.5
	Inner conductor	Ohm / km	45.0	75.0	75.0	158.0	80.0	53.0
Attenuation at	5 MHz	dB / 100 m	2.2	2.6	2.6	3.0	2.7	2.4
	10 MHz	dB / 100 m	2.9	3.5	3.5	4.0	3.8	3.4
	50 MHz	dB / 100 m	6.6	8.0	8.0	10.7	8.7	7.5
	100 MHz	dB / 100 m	9.5	11.6	11.6	14.2	12.4	10.7
	200 MHz	dB / 100 m	13.7	17.0	17.0	20.4	17.8	15.2
	230 MHz	dB / 100 m	14.7	18.3	18.3	21.9	19.1	16.3
	300 MHz	dB / 100 m	16.8	21.2	21.2	25.4	22.0	18.8
	400 MHz	dB / 100 m	19.4	24.5	24.5	29.3	25.6	21.8
	600 MHz	dB / 100 m	24.3	31.1	31.1	36.0	31.8	26.9
	800 MHz	dB / 100 m	29.1	37.8	37.8	42.1	37.2	31.3
	860 MHz	dB / 100 m	30.1	39.2	39.2	43.7	38.6	32.5
	1000 MHz	dB / 100 m	32.8	42.9	42.9		42.1	35.2
	1350 MHz	dB / 100 m	32.8	50.0	50.0			
	1600 MHz	dB / 100 m	41.5	54.5	54.5			
	1750 MHz	dB / 100 m	43.4	57.0	57.0			
	2150 MHz	dB / 100 m	48.1	63.0	63.0			
	2400 MHz	dB / 100 m						
Return loss at	5 – 470 MHz	dB	> 20.0	> 20.0	> 20.0	> 20.0	> 30.0	> 30.0
	470 – 862 MHz	dB	> 18.0	> 18.0	> 18.0	> 18.0	> 25.0	> 25.0
	862 – 2150 MHz	dB	> 16.0	> 16.0	> 16.0	> 16.0	> 25.0	> 25.0
Screening efficiency	30 – 1000 MHz	dB	> 75.0	> 75.0	> 75.0	> 65.0	> 50.0	> 50.0



Construction and dimensions								
Material conductor		Bare copper	Bare copper	Bare copper	Copper clad steel	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	0.7	0.58	0.58	0.58	0.6	0.6	0.8
Construction	n x mm				7 x 0.193	7 x 0.2	12 x 0.193	
Material dielectric		Solid PE	Solid PE	Solid PE	Solid PE	Gas injected PE	Solid PE	Gas injected PE
Diameter dielectric	mm	4.6 ± 0.15	3.7 ± 0.15	3.7 ± 0.15	3.7 ± 0.15	2.5 ± 0.15	3.5 ± 0.15	3.5 ± 0.15
Braiding I material		Bare copper	Annealed tinned copper	Annealed tinned copper	Bare copper	Bare copper	Bare copper	Bare copper
Braid coverage I	%	93	92	92	95	52	91	91
Braiding II material		Bare copper	Annealed tinned copper	Annealed tinned copper				
Braid coverage II	%	92	92	92				
Diameter outer conductor	mm	5.7 ± 0.25	4.8 ± 0.25	4.8 ± 0.25	4.3 ± 0.25	2.85 ± 0.2	4.1 ± 0.2	4.1 ± 0.2
Sheath material		PVC	PVC	PVC	PVC	PVC	PVC	PVC
Diameter sheath	mm	7.2 ± 0.3	6.0 ± 0.3	6.0 ± 0.3	6.15 ± 0.3	4.15 ± 0.2	5.6 ± 0.2	5.6 ± 0.2
Min. setting radius	mm	35	30	30	30	25	25	25

Belden part number	46036	43101	43102	46100	43654	43340	43346
Colour	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK
Put-up code	172 / 174	172 / 011	172 / 011	172 / 173	241	172 / 173	172 / 173
	240			011 / 241		011	011
Length / reel	meter	100 / 200	100 / 500	100 / 500	2500	100 / 200	100 / 200
		500		500 / 1000		500	500
Total weight	kg / km	80.0	57.0	58.0	53.0	18.2	41.6

# Communication Networks

## Coaxial 50 Ohm Cables

### 50 OHM

Product description	RG58 PVC	RG58 PVC TWIN	H155 PVC	H155 PE	RACO 25 PVC	H1000 R PVC
<b>Electrical performance</b>						
Impedance	Ohm	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2
Capacitance	pF / m	100 ± 2	100 ± 2	82 ± 2	82 ± 2	100 ± 2
Velocity ratio	%	66.0	66.0	81.0	81.0	83.0
DC resistance	Loop Inner conductor	Ohm / km Ohm / km	51.0 36.0	51.0 36.0	32.0 15.0	32.0 15.0
Attenuation at	5 MHz 10 MHz 50 MHz 100 MHz 200 MHz 230 MHz 300 MHz 400 MHz 600 MHz 800 MHz 860 MHz 1000 MHz 1350 MHz 1600 MHz 1750 MHz 2150 MHz 2400 MHz	dB / 100 m	3.7 4.7 10.6 15.1 21.4 23.0 26.5 29.7 37.9 44.2 45.8 49.6 58.2 63.9 66.8 74.6 78.9	3.7 4.7 10.6 15.1 21.4 23.0 26.5 29.7 37.9 44.2 45.8 49.6 58.2 63.9 66.8 74.6 78.9	2.3 3.0 6.5 9.3 13.2 14.2 16.3 19.0 23.0 26.5 27.5 30.9 35.9 40.5 42.3 46.9 49.6	2.3 3.0 6.5 9.3 13.2 14.2 16.3 19.0 23.0 26.5 27.5 30.9 35.9 40.5 42.3 46.9 49.6
Power rating at 40 C	7 MHz 14 MHz 21 MHz 28 MHz 50 MHz 100 MHz 144 MHz 432 MHz 800 MHz 900 MHz 1296 MHz 2320 MHz 5000 MHz 10000 MHz	Watt	940 660 540 470 350 250 210 120 85 80 65 50 30 20	940 660 540 470 350 250 210 120 85 80 65 50 30 20	950 670 550 470 350 250 210 120 85 80 65 50 30 20	950 670 550 470 350 250 210 120 85 80 65 50 30 20
Return loss at	5 - 470 MHz 470 - 862 MHz 862 - 2150 MHz	dB	> 20.0 > 18.0 > 16.0	> 20.0 > 18.0 > 16.0	> 23.0 > 20.0 > 18.0	> 23.0 > 20.0 > 18.0
Screening efficiency	30 - 1000 MHz	dB	> 65.0	> 65.0	> 85.0	> 85.0



Construction and dimensions						
Material conductor		Stranded soft annealed tinned copper	Stranded soft annealed tinned copper	Stranded soft annealed copper	Stranded soft annealed copper	Bare copper
Diameter conductor	mm	0.91	0.91	1.41	1.41	2.25
Construction	n x mm	19 x 0.18	19 x 0.18	19 x 0.28	19 x 0.28	7 x 0.75
Material dielectric		Gas injected PE	Gas injected PE	Gas injected PE	Solid PE	Gas injected PE
Diameter dielectric	mm	2.95 ± 0.15	2.95 ± 0.15	3.9 ± 0.15	3.9 ± 0.15	7.25 ± 0.2
Type of foil			Al-PET-AL	Al-PET-AL		
Overlap foil	mm			2	2	
Braiding material		Annealed tinned copper	Annealed tinned copper	Annealed tinned copper	Bare copper	Bare copper
Braid coverage	%	93	93	80	80	25
Diameter outer conductor	mm	3.5 ± 0.15	3.5 ± 0.15	4.5 ± 0.2	4.5 ± 0.2	7.8 ± 0.25
Sheath material		PVC	PVC	PE	PVC	PVC
Diameter sheath	mm	4.95 ± 0.2	4.95 ± 0.2	5.4 ± 0.2	5.4 ± 0.2	10.3 ± 0.3
Min. setting radius	mm	50	50	35	35	100

Belden part number	43633	46289	46220	49225	43643	43646
Colour	BLACK	BLACK	GREY	BLACK	GREY YELLOW	BLACK
Put-up code	011 / 172 / 177	241	011 / 028 172 / 177 / 240	177 / 240	014	242
Length / reel	meter	500 / 200 / 100	500	500 / 250 100 / 100 / 1000	100 / 1000	500
Total weight	kg / km	35.0	74.6	38.3	38.3	117.0
						137.0

# Belden Coaxial Cables for Broadband

## Coaxial 50 Ohm Cables

### 50 OHM

Product description	RG213 PVC	H1000 B PE	H1000 PVC	H1000 PE	H1001 PE	H500 PE
<b>Electrical performance</b>						
Impedance	Ohm	50 ± 2	50 ± 2	50 ± 2	50 ± 2	50 ± 2
Capacitance	pF / m	100 ± 2	80 ± 2	80 ± 2	80 ± 2	82 ± 2
Velocity ratio	%	66.0	83.0	83.0	83.0	81.0
DC resistance	Loop	Ohm / km	11.5	8.0	12.3	12.3
	Inner conductor	Ohm / km	6.0	3.5	3.5	4.5
Attenuation at	5 MHz	dB / 100 m	1.6	0.8	0.8	1.0
	10 MHz	dB / 100 m	2.0	1.2	1.2	1.5
	50 MHz	dB / 100 m	4.6	2.8	2.8	3.3
	100 MHz	dB / 100 m	6.6	4.0	4.0	4.7
	200 MHz	dB / 100 m	9.5	5.7	5.7	6.7
	230 MHz	dB / 100 m	10.1	6.1	6.1	7.2
	300 MHz	dB / 100 m	11.6	7.0	7.0	9.8
	400 MHz	dB / 100 m	13.8	8.4	8.4	10.6
	600 MHz	dB / 100 m	17.0	10.4	10.4	12.2
	800 MHz	dB / 100 m	20.0	12.3	12.3	14.4
	860 MHz	dB / 100 m	20.7	13.8	13.8	14.9
	1000 MHz	dB / 100 m	22.6	14.0	14.0	16.2
	1350 MHz	dB / 100 m	26.8	16.7	16.7	19.3
	1600 MHz	dB / 100 m	29.7	18.7	18.7	21.4
	1750 MHz	dB / 100 m	31.1	19.5	19.5	22.4
	2150 MHz	dB / 100 m	35.1	22.5	22.5	25.3
	2400 MHz	dB / 100 m	37.1	23.6	23.6	27.1
Power rating at 40 °C	7 MHz	Watt	3700	4500	3200	2600
	14 MHz	Watt	2600	3200	2200	1850
	21 MHz	Watt	2100	2600	1840	1500
	28 MHz	Watt	1800	2200	1590	1300
	50 MHz	Watt	1350	1700	1180	970
	100 MHz	Watt	950	1200	820	680
	144 MHz	Watt	780	1000	680	560
	432 MHz	Watt	440	600	370	310
	800 MHz	Watt	320	400	265	230
	900 MHz	Watt	290	400	250	210
	1296 MHz	Watt	240	300	200	170
	2320 MHz	Watt	170	200	145	125
	5000 MHz	Watt	110	200	90	80
	10000 MHz	Watt	70	100	55	50
Return loss at	5 – 470 MHz	dB	> 20.0	> 23.0	> 23.0	> 23.0
	470 – 862 MHz	dB	> 18.0	> 20.0	> 20.0	> 20.0
	862 – 2150 MHz	dB	> 16.0	> 18.0	> 18.0	> 18.0
Screening efficiency	30 – 1000 MHz	dB	> 65.0	> 100.0	> 100.0	> 100.0
						> 95.0



Construction and dimensions						
Material conductor		Stranded soft annealed copper	Bare copper	Bare copper	Bare copper	Bare copper
Diameter conductor	mm	2.25	2.62	2.62	2.62	2.70
Construction	n x mm	7.0 x 0.75				19.0 x 0.54
Material dielectric		Solid PE	Gas injected PE	Gas injected PE	Gas injected PE	Gas injected PE
Diameter dielectric	mm	7.25 ± 0.2	7.15 ± 0.2	7.15 ± 0.2	7.15 ± 0.2	7.15 ± 0.2
Type of foil			CuPET	Cu	Cu	Cu
Overlap foil	mm		2	2	2	2
Braiding material		Bare copper	Bare copper	Bare copper	Bare copper	Bare copper
Braid coverage	%	92	85	49	49	49
Diameter outer conductor	mm	7.8 ± 0.25	8.0 ± 0.25	7.9 ± 0.25	7.9 ± 0.25	7.45 ± 0.2
Sheath material		PVC	PE	PVC	PE	PE
Diameter sheath	mm	10.3 ± 0.3	10.3 ± 0.3	10.3 ± 0.3	10.3 ± 0.3	9.8 ± 0.2
Min. setting radius	mm	50	50	100	100	50
						75

Belden part number	43673	49056	46531	49025	49205	49305
Colour	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK
Put-up code	151 / 153 240 / 242 / 245	242	151 / 245 240 / 242	242	242	042 151 / 153 240 / 242
Length / reel	meter	100 / 200 250 / 500 / 1000	500	100 / 1000 250 / 500	500	500 2000 100 / 200 250 / 500
Total weight	kg / km	136	155	141	120	109
						107

### Table of Contents

# Communication Networks

## Put-up File

Put-up code	Put-up description	Number of reels / pallet	Pallet dimensions in mm (L x W x H)
011	Non returnable reel 350/130/250	27	1200 x 1000 x 1050
014	Non returnable reel 630/300/445	8	1200 x 1000 x 1800
025	Non returnable reel 800/500/450	—	
028	Non returnable reel 315/130/200	44	1200 x 1000 x 1100
040	Non returnable reel 250/100/160	54	1200 x 1000 x 700
042	Non returnable reel 1000/500/500	—	
043	Non returnable reel 1250/600/600	—	
079	Non returnable reel 400/200/264	18	1200 x 1000 x 1050
091	Non returnable reel 1000/450/500	—	
092	Non returnable reel 430/100/200	20	1200 x 1000 x 1050
106	Non returnable reel 352/102/152	54	1200 x 1000 x 1250
151	RING 100M		
152	RING 150M		
153	RING 200M		
172	BOX 325 x 325 x 83	100	1200 x 1000 x 1100
173	BOX 394 x 394 x 94	60	1200 x 1000 x 1100
174	BOX 394 x 394 x 129	42	1200 x 1000 x 1100
175	BOX 244 x 244 x 52	235	1200 x 1000 x 1100
177	BOX 272 x 272 x 74	150	1200 x 1000 x 1100
178	UNREEL BOX 350 x 220 x 350	26	1200 x 1000 x 940
179	UNREEL BOX 410 x 230 x 410	20	1200 x 1000 x 1060
240	Non returnable reel 500/250/245	12	1200 x 1000 x 1050
241	Non returnable reel 560/250/320	6	1200 x 1000 x 950
242	Non returnable reel 560/250/380	12	1200 x 1000 x 1900
245	Non returnable reel 800/400/450	—	
261	Non returnable reel 350/130/250	27	1200 x 1000 x 1050
293	Non returnable reel 1250/600/600	—	
422	BOX 325 x 325 x 83	100	1200 x 1000 x 1100
702	Non returnable reel 450/200/265	—	

Number of reels x length per reels = length per pallet

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