

New Product Bulletin

NP 125E

Belden® introduces a new Audio Cable Range – the perfect choice for cost effective high quality audio.



Belden® Audio Range for the Commercial A/V Market

The need for high-performance audio communications is greater than ever. Virtually every workplace – be it a corporate campus, high-rise office building, government agency, military base, hospital or health care facility, educational institution house of worship, retail center, sports stadium, entertainment venue, or hotel and convention center – needs to provide high-quality audio capabilities.

Audio systems may range from relatively simple to highly sophisticated networks. To meet a growing demand for high performance A/V communications, Belden has now introduced a new range of audio cabling systems, offering high audio quality combined with a favorable cost of ownership.

High Quality, High Performance

The new Belden Audio Range is the perfect choice for companies serving the public A/V and live performance marketplace, who need to run high quality audio on a limited budget. The range is highly cost-effective, yet delivers the traditional Belden professional quality and high performance. Most of the cables in the new audio range have been developed with halogen-free (HF) design according to IEC 332-1 standards and all are based on an oxygen-free copper conductor improving the quality of the signals and enabling the range deliver the best audio performance.

Offering a single design for each specific application, the cables have a very effective compact structure. Space saving is at a maximum level thanks to their thin construction and their lightweight form enable easy handling and deployment for both indoor and outdoor applications.

Meeting all A/V Requirements

Belden products have earned global acclaim for their precision engineering, rugged construction, high quality performance and rock-solid reliability. As the most trusted brand in the industry, Belden adheres to the same high standards and level of excellence. The commercial Audio Range has been designed for use in Boardrooms, Education & Healthcare, Transportation & Cruise Ships, Malls & Airports, Businesses, Theme Parks, Sports Venues, Government, Tradeshows, Company Events, Home Theater, Lightning & Energy Management, AV & Security Distribution, Home Office Systems, and Data Networking. Belden is the one cabling manufacturer with innovative products, technical expertise and a worldwide distribution network capable of fulfilling any and all A/V requirements.

Belden at Your Service

Belden offers a complete line of Brilliance® audio cables all available from a single source. All cables are featured in the EMEA Master Catalog (section 19).



Digital Audio Cables

De-	Part	UL NEC/ C(UL)CEC		dard gths		dard Veight	Conductor (Stranding)	Non Insulat	ninal tion OD	Shielding Material	Nomir	nal OD	Nom.	Nom. Vel. of	Nom Capac	inal itance	Nomir	nal Atten	uation
scription	No.	Type IEC	ft.	m	lbs.	kg	Diameter Nom. DCR	inch	mm	Nom. DCR	inch	mm	lmp. (Ω)		pF/ft.	pF/m	MHz	dB/ 100 ft.	dB/ 100 m

24 AWG • Stranded (7x0.2) 0.6 mm Oxygen-Free Bare Copper • Twisted Pair • Overall Beldfoil® Shield • 24 AWG Tinned Copper Drain Wire

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Foam Poly	yethylen	e Insulatio	n • Purpl	e Halog	jen-Fre	e (FRNC	C/LSNH) Jac	ket											
300V RMS 60°C	70049	IEC 332-1	1640	500	56.1	25.5	0.61 mm 24 AWG (7x0.2) BC	0.067	1.70	Overall Beldfoil® + Drain Wire (24 AWG TC)	0.197	5.00	110	76%	12.0	39.3	2.0 4.1 5.6	1.3 1.6 1.8	4.3 5.2 5.8

0.22 mm² Pulling Tension: 70 N

22 AWG • Stranded (7x0.25) 0.8 mm Oxygen-Free Bare Copper • Twisted Pair • Overall Beldfoil® Shield • 22 AWG Tinned Copper Drain Wire

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Foam Poly	ethylen/	e Insulatio	n • Purp	le Halo	gen-Fre	e (FRN	C/LSNH) Jac	ket											
300V RMS 60°C	70050	IEC 332-1	1640	500	81.2	36.8	0.76 mm 22 AWG (7x0.25) BC	0.083	2.10	Overall Beldfoil® + Drain Wire (22 AWG TC)	0.236	6.00	110	76%	13.0	42.6	2.0 4.1 5.6	0.9 1.1 1.3	2.9 3.6 4.3

0.34 mm² Pulling Tension: 70 N

26 AWG • Stranded (7x0.15) 0.5 mm Oxygen-Free Bare Copper • Individually **Beldfoil®** Shield • 26 AWG Tinned Copper Drain Wire • Numbered PA Jackets • Overall **Beldfoil®** Shield • Rip Cord

Foam Polyethyle	ene Insulation • Overall	l Purple Halogen-Free (FRNC/LSNH) Jacket							
100V RMS 70°C	IEC 332-1	0.5 mm 0.043 1.10 Individual 26 AWG Beldfoil® + Drain Wire (7x0.15) BC (26 AWG TC) + Overall Beldfoil®	110	60%	12.2	40.0	2.0 4.0 6.0	1.7 2.1 2.5	5.5 6.9 8.1
		Jacketed Pairs O.D.: 0.114 2.90							

70051	1-Pair	1640	500	37.4	17.0	0.154	3.9
70052	2-Pair	1640	500	144.4	65.5	0.331	8.4
70053	4-Pair	1640	500	207.4	94.1	0.386	9.8
70054	8-Pair	1640	500	345.0	156.5	0.504	12.8
70055	12-Pair	1640	500	462.5	209.8	0.579	14.7
70056	16-Pair	1640	500	576.6	261.5	0.650	16.5
	70052 70053 70054 70055	70052 2-Pair 70053 4-Pair 70054 8-Pair 70055 12-Pair	70052 2-Pair 1640 70053 4-Pair 1640 70054 8-Pair 1640 70055 12-Pair 1640	70052 2-Pair 1640 500 70053 4-Pair 1640 500 70054 8-Pair 1640 500 70055 12-Pair 1640 500	70052 2-Pair 1640 500 144.4 70053 4-Pair 1640 500 207.4 70054 8-Pair 1640 500 345.0 70055 12-Pair 1640 500 462.5	70052 2-Pair 1640 500 144.4 65.5 70053 4-Pair 1640 500 207.4 94.1 70054 8-Pair 1640 500 345.0 156.5 70055 12-Pair 1640 500 462.5 209.8	70052 2-Pair 1640 500 144.4 65.5 0.331 70053 4-Pair 1640 500 207.4 94.1 0.386 70054 8-Pair 1640 500 345.0 156.5 0.504 70055 12-Pair 1640 500 462.5 209.8 0.579

24 AWG • Stranded (7x0.2) 0.6 mm Oxygen-Free Bare Copper • Individually **Beldfoil**® Shield • 24 AWG Tinned Copper Drain Wire • Numbered PA Jackets • Overall **Beldfoil**® Shield • Rip Cord

Foam Poly	ethylen/	e Insulation	n • Overa	ali Pur _i	ole Halo	gen-Fr	ee (FRNC/L	SNH) Jac	cket								
100V RMS 70°C	A	IEC 332-1					0.6 mm 24 AWG (7x0.2) BC	0.055	1.40 Individual Beldfoil® + Drain Wire (24 AWG TC) + Overall Beldfoil®		110	60%	12.2	40.0	2.0 4.0 6.0	1.3 1.6 1.8	4.3 5.1 5.9
Rip Cord								Jacketed F 0.134	Pairs 0.D.: 3.40								
KIP COIG	70057	2-Pair	1640	500	174.2	79.0			0.362	9.2							
0.22 mm ²	70058	4-Pair	1640	500	255.0	115.7			0.425	10.8							
	70059	8-Pair	1640	500	453.9	205.9			0.559	14.2							
	70060	12-Pair	1640	500	622.3	282.3			0.650	16.5							
	70061	16-Pair	1640	500	731.5	331.8			0.732	18.6							

 $TC = Tinned\ Copper\ ullet\ BC = Bare\ Copper\ ullet\ DCR = DC\ resistance$



Analog Audio Cables

De-	Part	UL NEC/ C(UL)CEC	Stan Leng	dard gths	11-24-10	dard Veight	Conductor (Stranding)		inal ion OD	Shielding Material	Nomir	nal OD	Nom.	Nom. Vel. of	al Capac	itance	Color Code
scription	No.	Type IEC	ft.	m	lbs.	kg	Diameter Nom. DCR	inch	mm	Nom. DCR	inch	mm	(Ω)	Prop.	pF/ft.	pF/m	GUIUI GUUE

24 AWG • Stranded (7x0.2) 0.6 mm Oxygen-Free BC Conductors • Twisted Pair • Overall Beldfoil® Shield • 24 AWG Tinned Copper Drain Wire

Polyethylene Insulation • Grey Halogen-Free (FRNC/LSNH) Jacket 300V RMS 70030 IEC 332-1 1640 0.61 mm 500 29.3 13.3 0.040 1.02 Overall 0.122 3.10 80 CDR/CDR Black, Red 24 AWG Beldfoil® CDR/SCR 55 180 (7x0.2) BC + Drain Wire (24 AWG TC)

0.22 mm² Pulling Tension: 71 N • Jacket and shield are bonded so both can be removed with automatic stripping equipment.

22 AWG • Stranded (7x0.25) 0.8 mm Oxygen-Free Bare Copper • Twisted Pair • Overall Beldfoil® Shield • 22 AWG Tinned Copper Drain Wire

Polyethylene Insulation • Grey Halogen-Free (FRNC/LSNH) Jacket 70031 IEC 332-1 1640 500 42.6 0.76 mm 0.046 Overall 0.138 Black, Red 1.16 3.50 Beldfoil® 22 AWG CDR/SCR 67 220 (7x0.25) BC + Drain Wire (22 AWG TC) 0.34 mm² Pulling Tension: 120 N • The jacket and shield are bonded so both can be removed with automatic stripping equipment. Drain wire is inside foil shield.

26 AWG • Stranded (7x0.16) 0.5 mm Oxygen-Free BC • Individually Beldfoil® Shield • Numbered PVC Jackets • Overall >80% TC Braid

Polyethyle	ene Insul	ation • Ov	erall Blad	ck PVC	Jacket											
100V RMS 75°C	3						0.48 mm 26 AWG (7x0.16) BC	0.039	1.00 Individual Beldfoil® Shield 100% + Overall Braid >80%		90	-	CDR/CDR CDR/SCR	18 34	60 110	White, Red
								Jacketed P 0.110	Pairs O.D.: 2.80							
0.14 mm ²	70032	4-Pair	1640	500	235.3	106.7			0.390	9.9						
	70033	8-Pair	1640	500	361.5	164.0			0.492	12.5						
	70034	12-Pair	1640	500	517.8	234.9			0.571	14.5						
	70035	16-Pair	1640	500	661.2	299.9			0.646	16.4						
	70036	24-Pair	1640	500	735.0	333.4			0.768	19.5						
	70037	40-Pair	1640	500	1356.2	615.2			0.866	22.0						

26 AWG • Stranded (7x0.16) 0.5 mm Oxygen-Free Bare Copper • Each Pair **Beldfoil**® Shielded • 26 AWG Tinned Copper Drain Wire • Numbered FRNC/LSNH Jackets • Overall **Beldfoil**® Shield • Rip Cord

Polyethyle	ne Insula	ation • Ove	rall Bla	ck Halo	gen-Fr	ee (FRN	IC/LSNH) Ja	cket										
300V RMS 75°C		IEC 332-1					0.5 mm 26 AWG (7x0.16) BC	0.039		Individual eldfoil® + Drain (26 AWG TC) · Overall Beldfoil			60	-	CDR/CDR CDR/SCR	31 58	102 190	White, Red
							,	Jacketed P 0.111	airs 0.D 2.82	.:								
Rip Cord	70041	2-Pair	1640	500	235.3	106.7					0.315	8.0						
0.14 mm ²	70042	4-Pair	1640	500	361.5	164.0					0.366	9.3						
	70043	8-Pair	1640	500	517.8	234.9					0.476	12.1						
	70044	12-Pair	1640	500	661.2	299.9					0.551	14.0						

Microphone Cable

24 AWG • Stranded (32x0.1) 0.6 mm Oxygen-Free Bare Copper • Conductors Cabled with Fillers • 90 % Bare Copper Spiral Serve Braid

Polyethyle	ne Insulation • F	VC Jacket	(Red, Y	ellow, Gr	een, Blu	ue, Grey and B	lack)										
100V RMS 60°C	70040	328 1640	100 500	9.3 46.3	4.2 21.0	0.6 mm 24 AWG (32x0.1) BC	0.057	1.45	Overall Spiral Serve + 90% BC Braid	0.240	6.10	-	-	CDR/CDR CDR/SCR	18 34	60 110	Red, Blue
0.25 mm ²		Pulling Ter	nsinn: 44	N													



Analog Audio Cables

Speaker Cables

De-	Part	UL NEC/ C(UL)CEC		dard gths		idard Veight	Conductor (Stranding)		ninal tion OD	Shielding Material	Nomi	nal OD	Nom.	Nom. Vel. of	al Capac	citance	Color Code
scription	No.	Type IEC	ft.	m	lbs.	kg	Diameter Nom. DCR	inch	mm	Nom. DCR	inch	mm	lmp. (Ω)	Prop.	pF/ft.	pF/m	Color Code

16 AWG • 2 Conductor • Stranded (30x0.25) 1.5 mm Oxygen-Free Bare Copper

				,		,	, 0											
FRNC Insu	ılation •	Matte Hale	ogen-Fre	e (FRN	C/LSNH	l) Jacke	t (Grey or Bla	ck)										
300V RMS 60°C	70045	IEC 332-1	1640	500	136.5	61.9	1.5 mm 16 AWG (30 x 0.25) BC	0.091	2.30	Unshielded	0.248	6.30	12	-	CDR/CDR	35	115	Black, Red
	General																	

2x1.5 mm² Pulling Tension: 200 N

13 AWG • 2 Conductor • Stranded (50x0.25) 2.1 mm Oxygen-Free Bare Copper

FRNC Insulation • Matte Halogen-Free (FRNC/LSNH) Jacket (Grey or Black)																	
300V RMS 60°C		IEC 332-1				2.05 mm 13 AWG (50 x 0.25) BC	0.106	2.70	Unshielded			7.4	-	CDR/CDR	40	131	Black, Red
																Р	ulling Tension:
	70046	2x2.5 mm ² 1640	500	191.5	86.9					0.287	7.30					3	50 N
	70047	4x2.5 mm ² 1640	500	312.8	141.9					0.335	8.50					7	00 N

11 AWG • 2 Conductor • Stranded (56x0.3) 2.6 mm Oxygen-Free Bare Copper

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FRNC Insulation • Matte Halogen-Free (FRNC/LSNH) Jacket (Grey or Black)																		
300V RMS 60°C	70048	IEC 332-1	1640	500	288.7	130.9	2.6 mm 11 AWG (56x0.3) BC	0.130	3.30	Unshielded	0.339	8.60	4.5	-	CDR/CDR	35	116	Black, Red
	General						,											

2x4.0 mm² Pulling Tension: 550 N

 $BC = Bare \ Copper \bullet DCR = DC \ resistance \bullet CDR = Capacitance \ between \ conductors$