

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		ninal 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

Pulling Tension: 70 N 0.22 mm²

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 • Purpi	e 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 Polyeth	ylene Insulation • Overall Pu	urple 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	110	60%	12.2	40.0 4.0	2.0 2.1	1.7 6.9	5.5
		(7x0.15) BC (26 AWG TC) + Overall Beldfoil®					6.0	2.5	8.1
		Jacketed Pairs O.D.: 0.114 2.90							

Rip Cord								
nip coru	70051	1-Pair	1640	500	37.4	17.0	0.154	3.9
0.14 mm ²	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

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 • Over	all Pur	ple Halo	gen-Fr	ee (FRNC/LS	SNH) Jac	ket								
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 4.0	2.0 1.6 6.0	1.3 5.1 1.8	4.3 5.9
								Jacketed F 0.134	Pairs 0.D.:								
Din Cowl								0.134	3.40								
Rip Cord	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	Stan Unit V	dard Veight	Conductor (Stranding)		ninal tion OD	Shielding Material	Nomir	nal OD	Nom.	Nom. Vel. of	Nomin	al Capac	citance	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	Color Code

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 0.040 500 29.3 13.3 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 3.50 Black, Red 22 AWG Beldfoil® 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 Insula	ation • Ove	erall Bla	ck PVC	Jacket											
100V RMS 75°C	78						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 F 0.110								
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	ene Insul	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	1.00 Individual Beldfoil® + Drain (26 AWG TC) + Overall Beldfoil			60	-	CDR/CDR CDR/SCR	31 58	102 190	White, Red
	3							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

Polyethylene Ins	ulation • PVC Jacke	t (Red, Y	ellow, Gr	een, Blu	ue, Grey and B	lack)										
100V RMS 70040 60°C	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 Te	nsion: 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

FRNC Insu	lation •	Matte Halo	ogen-Fre	e (FRN	C/LSNH	l) Jacke	et (Grey or Bla	ick)										
300V RMS 60°C	70045	IEC 332-1	1640	500	136.5	61.9	1.5 mm 16 AWG (30x0.25) BC	0.091	2.30	Unshielded	0.248	6.30	12	-	CDR/CDR	35	115	Black, Red
	(50000																	

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
	(dans)															P	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

				,			, 0											
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
2x4.0 mm ²			Pulling Ter	sion: 55	0 N						•							

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