Belden EN/IEC rated LSZH Classics/Electronics

PRODUCT BULLETIN

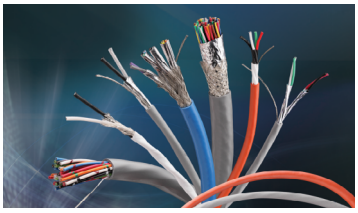
Belden Low Smoke Zero Halogen (LSZH) jacketed Paired and Multi Conductors Cables expands the availability of Belden Classics series for enhanced performance in case of fire while meeting the stringent European CPR norms as well as IEC.

Benefits

- Extra Low Capacitance for enhanced reach and data transmission
- Large range of design
- Reliability: LSZH cables offer the same unsurpassed quality and reliability as our Classics series
- Highly Effective Shielding Technology: Belden offers innovative, EMI/RFI protective foil and braid designs, such as Beldfoil®, to reduce such interferences.
- Environmentally friendly: LSZH materials are non toxic as compared to PVC. These products meets the REACH and RoHS compliance.
- Enhanced resistance to fire with rating up to CPR B2ca as per EN50575
- Using biodegradable packaging material

Applications

- Audio, Control and instrumentation
- Panels and control room
- Computer/POS
- Electrical panel builders
- Building Management Systems
- RS-232, RS-422/423, & RS-485—computer and CAD/CAM
- Profibus DP, Profibus PA, Foundation Fieldbus and Blue hose



Part numbering: Belden utilizes a defined product code referring to a certain design and specification of the cable, generally excluding the color and the packaging type.

Product Code: The product code is generally based upon a base product code being the classics UL listed PVC product code with the addition of a suffix as explained below:

For the base UL listed products, please refer to: **Classics-Cable-Belden-2011-01.pdf**

Product Listing – Unarmored EN/IEC rated LSZH Classics/Electronics

Base Product Code		Design type		Jacket/environment		CPR Euroclass rating
	E*	CPR defined EN/IEC design	L	Indoor LSZH, IEC 60332-3	V	CPR B2ca min s1,d1,a1
					W	CPR Cca min s1,d1,a1
	NH	EN/IEC design, IEC 60332-3, LSZH, CPR Dca without specific s,d,and a values				

*The letter E is optional as some of the designs do not yet have it. Work is in progress to offer these alternatives for a more consistent user experience.

Examples	Base Product Code (PVC, UL listed non riser non plenum, Eca or more)	Indoor LSZH CPR Eca or Dca Rated Code	LSZH CPR Cca Rated Code	LSZH CPR B2ca Rated Code
Generic example	-	-NH or -ENH	-LW or -ELW	-LV or -ELV
8760 series	8760	8760NH	8760ELW	8760ELV
9841 series	9841	9841NH	9841LW	9841LV

Wire Specifications			
Conductor	Stranded Tinned Copper	**Flame Rating**	IEC 60332-1-2, IEC 60332-3-24 + CPR (see table below)
Jacket	LSZH	**Oil Resistance**	IEC 60811-404
Insulation	PO, Foamed PO, or LSZH	**Standard Put-ups**	305mt (1000ft), 500mt
Capacitance	Extra Low Capacitance	**Standard Color**	Chrome
Voltage	300V RMS		

Product Listing – Unarmored EN/IEC rated LSZH Classics/Electronics

Core Count	Core Configuration	Conductor	Shield	CPR (EN 50575)	Nom. Imp.	24 AWG	22 AWG	20 AWG	18 AWG	16 AWG	14 AWG
2	1 Pair or 2 Cond.	Str TC	F/U	Dca or Eca		9501NH[1]	8761NH	8762NH	8760NH	8719NH	8720NH
				Cca			8761ELW*	8762ELW	8760ELW	8719ELW	
				B2ca			8761ELV	8762ELV	8760ELV		
				Dca or Eca	100 Ω		3077ENH[6]		3076ENH[6]		
			U/U	Dca or Eca				8205NH		8471NH	
				Cca				8205ELW*		8471ELW	
				B2ca						8471ELV	
			SF/U	Dca or Eca	120 Ω	9841NH[3]	3105ENH[3]	71740ELZ	71730ELZ		
				Cca	120 Ω	9841LW[3]	3105ELW[3]	71740ELW	71730ELW		
				B2ca	120 Ω	9841LV[3]					
				Dca or Eca			3079ANH[4]	9463NH[5]			
3	3 Conductors	Str TC	F/U	Dca or Eca			8771NH	8772NH	8770NH		
				Cca		9925ELW		8772ELW*	8770ELW		
				B2ca				8772ELV*			
	1 Pair, 1 Cond.	Str TC	SF/U	Dca or Eca	120 Ω		3106ENH[3]				
				Cca	120 Ω		3106ELW[3]				
4	2 Pairs	Str TC	U/F	Dca or Eca		9729NH[2]	8723NH				
				Cca		9729ELW[2]	8723LW				
			F/U	Dca or Eca		9502NH[1]					
				Cca		9502ELW[1]*					
			SF/U	Dca or Eca	120 Ω	9842NH[3]	3107ENH[3]	71741ELZ	71731ELZ		
				Cca	120 Ω	9842LW[3]	3107ELW[3]	71741ELW	71731ELW		
				B2ca	120 Ω	9842LV[3]	3107ELV[3]				
				Dca or Eca		9829NH[2]					
				Dca or Eca		8102NH[2]					
	4 Conductors	Str TC	F/U	Dca or Eca		9534NH[1]					
5	5 Conductors	Str TC	F/U	Cca		9535ELW[1]					
6	3 Pairs	Str TC	U/F	Dca or Eca		9730NH[2]	8777NH				
				Cca			8777ELW		9773ELW		
				B2ca			8777ELV				
			F/U	Cca		9503ELW[1]					
				Dca or Eca		9503NH[1]					
			SF/U	Dca or Eca	120 Ω	9843NH[3]		71742ELZ	71732ELZ		
				Cca				71742ELW	71742ELZ		
	6 Conductors	Str TC	F/U	B2ca		9536ELV[1]*					
				Cca		9536ELW[1]					
				Dca or Eca		9536NH					
8	4 Pairs	Str TC	F/U	Cca		9504ELW[1]*					
				Dca or Eca		9504NH[1]					
			SF/U	Dca or Eca	120 Ω	9844NH[3]		71743ELZ	71733ELZ		
				Cca		9844NELW		71743ELW	71733ELZ		
10	5 Pairs	Str TC	SF/U	Cca			8305ELW				
			F/U	Dca or Eca		9505NH[1]					
12	6 Pairs	Str TC	U/F	Cca		9504ELW[1]*	8778ELW				
				Dca or Eca			8778NH				
			F/U	Dca or Eca		9506NH[1]					
				Cca		9506ELW					
14	7 Pairs	Str TC	F/U	Dca or Eca		9507NH[1]					
15	15 Conductors	Str TC	F/U	Dca or Eca		9541NH[1]					
16	8 Pairs	Str TC	F/U	Dca or Eca		9508NH[1]					
20	10 Pairs	Str TC	F/U	Dca or Eca		9510NH[1]					
			SF/U	Dca or Eca		8110NH[2]					

Product Listing – Armored EN/IEC rated LSZH Classics/Electronics

Core Configuration	Conductor	Shield/Armor	CPR (EN 50575)	Nom. Imp.	24 AWG	22 AWG	20AWG	18 AWG	16 AWG
1 Pair or 2 Cond.	Str TC	F/U + SWA	Cca						8719LWS*
			Dca or Eca					8760LS	8719LS
			Dca or Eca	100 Ω		3077ELS[6]		3076ELS[6]	
		U/U + SWA	Dca or Eca						8471LS
		SF/U + SWA	Dca or Eca	120 Ω	9841LS[3]				
			Dca or Eca		9463LS[3]				
2 Pairs	Str TC	F/U + SWA	Dca or Eca		9502LS[1]				
		U/F + SWA	Dca or Eca			8723LS			
		SF/U + SWA	Cca	120 Ω		3107LWS[3]			
			Dca or Eca	120 Ω		3107ELS[3]			
3 Pairs	Str TC	U/F + SWA	Dca or Eca			8777LS			
		SF/U + SWA	Dca or Eca	120 Ω	9843LS[3]				
4 Pairs	Str TC	SF/U + SWA	Dca or Eca	120 Ω	9844LS[3]				
6 Pairs	Str TC	U/F + SWA	Dca or Eca			8778LS			

Legend

*Capability Product	[1]RS-232	[2]100 Ohm, RS-422/232	[3]120 Ohm RS-485/422/232	[4]150 Ohm Profibus DP	[5]78 Ohm Blue Hose	[6]100 Ohm Profibus PA/ Foundation Fieldbus

Acronyms

LSZH LSZH stands for Low Smoke Zero Halogen, which is a polyolefin based compound which includes fire retardant fillers which slows down the spread of fire while limiting the amount of smoke.

PO Polyolefin (Polyethylene or Polypropylene)

SWA SWA stands for Steel Wire Armor which is used mainly for crush and rodent resistance, typically for outdoor applications

Str TC Stranded tinned copper

F/U Overall Foil over the conductors or pairs

U/F Individually shielded pairs

U/U Unshielded

SF/U Overall Foil and Overall Braid

Order Information

Item number, color and put-up: The item number starts by the product code and finished with a reference describing the color and put-up but are not following a specific logic. The standard color of this series is chrome and the standard put-up 305mt/1000ft or 500mt. Other options are available on special requests.

***Capability:** To maximize our offering while limiting the number of products maintained in our system, we are introducing capability item, which are reserved part numbers having a preliminary technical datasheet. In some cases, an extra design cycle may be required to get the cable fully certified. Additionally, a minimum business quantity applies for these designs.

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