# **Detailed Specifications & Technical Data**



METRIC MEASUREMENT VERSION

## 643948 Coax - CCTV Applications

For more Information please call





## **General Description:**

.....

Surveillance & CCTV Cable, RG59, Plenum-CMP, 20 AWG solid bare copper, foamed FEP core, 95% bare copper braid, Flamarrest® jacket

Usage (Overall)	
Suitable Applications:	CCTV
Physical Characteristics (Overall)	
Conductor AWG:	
# Coax AWG Stranding Conductor Material	Dia. (mm)
1 20 Solid BC - Bare Copper C	0.8128
Insulation Insulation Material:	
Insulation Trade Name Insulation Material	Dia. (mm)
Teflon® FFEP - Foam Fluorinate	d Ethylene Propylene 3.429
Outer Shield Outer Shield Material:	
Type Outer Shield Material Coverage (%)	
Braid BC - Bare Copper 95	
Outer Jacket	
Outer Jacket Material:	
Outer Jacket Trade Name         Outer Jacket Materi           Flamarrest®         LS PVC - Low Smoke	
Overall Cable	
uverall Nominal Diameter	4 877 mm
Overall Nominal Diameter:	4.877 mm
Overall Nominal Diameter: Mechanical Characteristics (Overall)	4.877 mm
	4.877 mm -20°C To +75°C
Mechanical Characteristics (Overall)	
Mechanical Characteristics (Overall) Operating Temperature Range:	-20°C To +75°C
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating:	-20°C To +75°C 75°C
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight:	-20°C To +75°C 75°C 44.646 Kg/Km
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight: Max. Recommended Pulling Tension:	-20°C To +75°C 75°C 44.646 Kg/Km 231.306 N 44.450 mm
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight: Max. Recommended Pulling Tension: Min. Bend Radius/Minor Axis:	-20°C To +75°C 75°C 44.646 Kg/Km 231.306 N 44.450 mm <b>y Compliance (Overall)</b>
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight: Max. Recommended Pulling Tension: Min. Bend Radius/Minor Axis: Applicable Specifications and Agenc	-20°C To +75°C 75°C 44.646 Kg/Km 231.306 N 44.450 mm <b>y Compliance (Overall)</b>
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight: Max. Recommended Pulling Tension: Min. Bend Radius/Minor Axis: Applicable Specifications and Agence Applicable Standards & Environmental I	-20°C To +75°C 75°C 44.646 Kg/Km 231.306 N 44.450 mm <b>y Compliance (Overall)</b> Programs
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight: Max. Recommended Pulling Tension: Min. Bend Radius/Minor Axis: Applicable Specifications and Agenc Applicable Standards & Environmental I NEC/(UL) Specification:	-20°C To +75°C 75°C 44.646 Kg/Km 231.306 N 44.450 mm y Compliance (Overall) Programs CMP
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight: Max. Recommended Pulling Tension: Min. Bend Radius/Minor Axis: Applicable Specifications and Agence Applicable Standards & Environmental I NEC/(UL) Specification: NEC Articles:	-20°C To +75°C 75°C 44.646 Kg/Km 231.306 N 44.450 mm <b>y Compliance (Overall)</b> Programs CMP 800
Mechanical Characteristics (Overall) Operating Temperature Range: UL Temperature Rating: Bulk Cable Weight: Max. Recommended Pulling Tension: Min. Bend Radius/Minor Axis: Applicable Specifications and Agenc Applicable Standards & Environmental I NEC/(UL) Specification: NEC Articles: CEC/C(UL) Specification:	-20°C To +75°C 75°C 44.646 Kg/Km 231.306 N 44.450 mm <b>y Compliance (Overall)</b> Programs CMP 800 CMP

# **Detailed Specifications & Technical Data**

METRIC MEASUREMENT VERSION



## 643948 Coax - CCTV Applications

EU Directive 2002/95/EC (RoHS):	Yes			
EU RoHS Compliance Date (mm/dd/yyyy):	04/01/2005			
EU Directive 2002/96/EC (WEEE):	Yes			
EU Directive 2003/11/EC (BFR):	Yes			
CA Prop 65 (CJ for Wire & Cable):	Yes			
MII Order #39 (China RoHS):	Yes			
RG Type:	59/U			
Series Type:	Series 59			
Flame Test				
UL Flame Test:	NFPA 262			
C(UL) Flame Test:	FT6			
Plenum/Non-Plenum				
Plenum (Y/N):	Yes			

Surface Printing (Overall)

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm) 75

Nom. Inductance:

Inductance (µH/m)

0.318257

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

52.8241

Nominal Velocity of Propagation:

**VP (%)** 84

Nominal Delay:

Delay (ns/m) 3.97001

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

32.81

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

10.827

#### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)			
1	0.95149			
3	1.90298			
5	2.2967			
8	2.85447			
10	3.44505			
50	5.9058			
100	8.8587			
200	12.7959			
400	19.3579			
700	27.8885			
900	32.81			

## **Detailed Specifications & Technical Data**



1000 35.1067

#### Max. Operating Voltage - UL:

METRIC MEASUREMENT VERSION

Voltage 300 V RMS

### Notes (Overall)

Notes: Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
643948 010U1000	305 MT	13.608 KG	BLACK		#20 FPFA BRD FLRST
643948 010U500	152 MT	7.258 KG	BLACK		#20 FPFA BRD FLRST
643948 0101000	305 MT	14.515 KG	BLACK	С	#20 FPFA BRD FLRST
643948 877U1000	305 MT	12.701 KG	NATURAL		#20 FPFA BRD FLRST
643948 877U500	152 MT	6.804 KG	NATURAL		#20 FFPA BRD FLRST
643948 8771000	305 MT	13.154 KG	NATURAL	С	#20 FPFA BRD FLRST

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 08-12-2013

© 2013 Belden, Inc All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product. Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.