Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



7790A Coax - Bundled Miniature

For more Information please call

1-800-Belden1



General Description:

Miniature, 23 AWG solid .023" bare copper conductors, solid copper, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), overall PVC jacket.

6

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
6	23	Solid	BC - Bare Copper	0.5842

Total Number of Conductors:

Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	2.5908

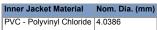
Inner Shield

Inner Shield Material:

Layer # Inner Shield Trade Name		Type	Inner Shield Material	Coverage (%)	
	1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
	2		Braid	TC - Tinned Copper	95

Inner Jacket

Inner Jacket Material:



Inner Jacket Color Code Chart:

Number	Color
1	Red
2	Green
3	Blue
4	White
5	Yellow
6	Brown

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter: 15.164 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-35°C To +75°C
UL Temperature Rating:	60°C
Non-UL Temperature Rating:	75°C
Bulk Cable Weight:	241.088 Kg/Km
Max. Recommended Pulling Tension:	960.811 N
Min. Bend Radius/Minor Axis:	152.400 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR	
CEC/C(UL) Specification:	CMG	
EU Directive 2011/65/EU (ROHS II):	Yes	

Page 1 of 3 11-05-2015

Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



7790A Coax - Bundled Miniature

EU CE	Mark:	Yes
EU Dii	rective 2000/53/EC (ELV):	Yes
EU Dii	rective 2002/95/EC (RoHS):	Yes
EU Ro	HS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Dii	rective 2002/96/EC (WEEE):	Yes
EU Dii	rective 2003/11/EC (BFR):	Yes
CA Pr	op 65 (CJ for Wire & Cable):	Yes
MII Or	der #39 (China RoHS):	Yes
RG Ty	pe:	Mini
Flame Te	st	
UL Fla	ime Test:	UL1666 Vertical Shaft
CSA F	lame Test:	FT4
Suitability	1	
Suitab	oility - Indoor:	Yes
Suitab	ility - Outdoor:	Yes
Plenum/N	on-Plenum	
Plenu	m (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:



Nom. Inductance:

Inductance (µH/m) 0.347786

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m) 54.1365

Nominal Velocity of Propagation:



Nominal Delay:

Delay (ns/m) 4.06844

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 65.9481

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/km) 24.9356

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1.000	1.312
3.600	2.625
10.000	3.937
71.500	10.171
135.000	12.468
270.000	17.717
360.000	20.342
540.000	25.264
720.000	29.857
750.000	31.170
1000.000	34.451
1500.000	42.653
2500.000	55.449
3000.000	60.699
4500.000	80.713

Max. Operating Voltage - UL:

Voltage

Page 2 of 3 11-05-2015

Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



7790A Coax - Bundled Miniature

300 V RMS

Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge Other Electrical Characteristic 1:

and termination.

Other Electrical Characteristic 2: Return Loss Tested in Accordance With ASTM D-4566 Paragraph 45.3, Using a 75 Ohm Fixed Bridge and

Termination.

Minimum Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
5.000	1600.000	23.000
1600.000	4500.000	21.000

Sweep Test

Sweep Testing: Sweep tested 5 MHz to 4.5 GHz

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7790A B591000	1,000 FT	178.000 LB	BLACK, MATTE	С	6 #23 PE/GIFHDPE SH PVC PVC
7790A B59500	500 FT	90.000 LB	BLACK, MATTE	С	6 #23 PE/GIFHDPE SH PVC PVC

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 3 Revision Date: 05-10-2013

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Page 3 of 3 11-05-2015