



Product: [9815](#)



100Ω Twinax, #20-1c TC/1c BC, PO, Duofoil® + 2 TC Braids, PE Jkt, Direct Burial

Product Description

100 Ohm Twinax, 20 AWG stranded (7x28) .037" one tinned/ one bare copper conductors, polyethylene insulation, Duofoil® + tinned copper braid shield (95% coverage), high-density polyethylene jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Construction n x D	No. of Conductors
20	7x28	TC - Tinned Copper	Stranded	1
20	7x28	BC - Bare Copper	Stranded	1

Conductor Count: 2

Insulation

Material	Nominal Wall Thickness
PE - Polyethylene	0.024 in

Color Chart

Number	Color
1	Natural & Natural

Inner Jacket

Material	Nominal Diameter	Nominal Wall Thickness
PE - Polyethylene	0.236 in	0.035 in

Outer Shield

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Tri-Laminate (Alum+Poly+Alum)	Duofoil®	100%
Braid	2	Tinned Copper (TC)		95%

Outer Shield Table Notes: Polyethylene Grease

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
PE - Polyethylene	0.33 in	0.034 in

HDPE

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
9.5 Ohm/1000ft	2 Ohm/1000ft	2 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield	Nom. Capacitance Conductor to Shield
14.5 pF/ft	23 pF/ft	14.5 pF/ft

Inductance

Nominal Inductance

0.155 μ H/ft

Impedance

Nominal Characteristic Impedance

100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.4 dB/100ft
10 MHz	1.1 dB/100ft
50 MHz	2.5 dB/100ft
100 MHz	4.1 dB/100ft
200 MHz	6.4 dB/100ft
400 MHz	10.2 dB/100ft

Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
66 ns/100m	1.54 ns/ft	66%

High Frequency

Frequency [MHz]
1 MHz
10 MHz
50 MHz
100 MHz
200 MHz
400 MHz

Voltage

Non-UL Voltage Rating

600 V RMS

Electrical Characteristics Notes: Capacitance conductor to shield: 23.0 pF/ft

Temperature Range

Operating Temperature Range: -55°C To +80°C

Mechanical Characteristics

Bulk Cable Weight:	62 lbs/1000ft
Maximum Recommended Pulling Tension:	115 lbs
Minimum Minor Axis Bend Radius:	3.5 in

Standards

CPR Euroclass:	Fca
----------------	-----

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Burial:	Yes
-----------------------	-----

Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
9815 010500	Black	Reel	500 ft	612825259053
9815 0101000	Black	Reel	1,000 ft	612825259039

Footnote:

C - CRATE REEL PUT-UP.

Product Notes

Notes:	Polyethylene flooding grease applied over outer shield.
--------	---

History

Update and Revision:	Revision Number: 0.346 Revision Date: 02-03-2025
----------------------	--

© 2026 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 here in 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 all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information 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. The 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.