



**Product:** [89207](#)

100Ω Twinax, #20-1c TC/1c BC, FEP, Duofoil® TC Braid, FEP Jkt, CMP

### Product Description

100 Ohm Twinax, 20 AWG stranded (7x28) one tinned, one bare copper conductor, FEP insulation, overall FEP dielectric, Duofoil® + tinned copper braid shield 85%, FEP jacket.

### Technical Specifications

#### Physical Characteristics (Overall)

##### Conductor

AWG	Stranding	Material	Construction n x D	Nominal Diameter	No. of Pairs
20	7x28	TC - Tinned Copper	Stranded	0.037 in	1
	7x28	BC - Bare Copper	Stranded	0.037 in	

Conductor Count: 2

##### Insulation

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	Teflon®	0.072 in

##### Color Chart

Number	Color
1	Natural (bare conductor)
2	Natural (tinned conductor)

##### Inner Jacket Material

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	Teflon®	0.201 in

##### Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Duofoil®	100 %
Braid	2	TC - Tinned Copper		85 %

##### Outer Jacket Material

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	Teflon®	0.259 in

#### Electrical Characteristics

##### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
9.5 Ohm/1000ft	2.5 Ohm/1000ft

##### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield	Nom. Capacitance Conductor to Shield
14 pF/ft	23 pF/ft	14 pF/ft

##### Inductance

**Nominal Inductance**

0.155 µH/ft

**Impedance****Nominal Characteristic Impedance**

100 Ohm

**High Frequency (Nominal/Typical)**

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.3 dB/100m
10 MHz	1.2 dB/100m
50 MHz	2.8 dB/100m
100 MHz	4.1 dB/100m
200 MHz	6.4 dB/100m
300 MHz	8.4 dB/100m
400 MHz	10.2 dB/100m

**Delay**

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
69.5 ns/100m	1.46 ns/ft	69.50 %

**Voltage****UL Voltage Rating**

300 V RMS

**Temperature Range**

Operating Temp Range:	-70°C To +200°C
-----------------------	-----------------

**Mechanical Characteristics**

UV Resistance:	Yes - Black only
Bulk Cable Weight:	52 lbs/1000ft
Max Recommended Pulling Tension:	88 lbs
Min Bend Radius/Minor Axis:	2.75 in

**Standards**

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
CPR Euroclass:	Eca

**Applicable Environmental and Other Programs**

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2011/65/EU (ROHS II)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2001-01-01

**Suitability**

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only

**Flammability, LS0H, Toxicity Testing**

UL Flammability:	NFPA 262
CSA Flammability:	FT6
ISO/IEC Flammability:	IEC 60332-1-2

UL voltage rating:	300 V RMS
--------------------	-----------

## Plenum/Non-Plenum

Plenum (Y/N):	Yes
---------------	-----

## Part Number

Non-Plenum Number:	9207
--------------------	------

## Variants

Item #	Color	Putup Type	Length	UPC
89207 010100	Black	Reel	100 ft	612825220756
89207 010500	Black	Reel	500 ft	612825220770
89207 0101000	Black	Reel	1,000 ft	612825220763

Footnote:	C - CRATE REEL PUT-UP.
-----------	------------------------

## Product Notes

Notes:	Teflon® is a registered trademark of Chemours and is used under license by Belden, Inc.
--------	---

## History

Update and Revision:	Revision Number: 0.250 Revision Date: 04-28-2020
----------------------	--

© 2020 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 "ASIS" 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.