

## 85164 Multi-Conductor - High-Temperature Control and Instrumentation Cable



For more Information  
please call

1-800-Belden1



### General Description:

20 AWG stranded (7x28) TC conductors, Tefzel® insulation, pairs cabled together, overall Beldfoil Aluminum-Kapton® shield (100% coverage), drain wire, Tefzel® material jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	20	7x28	TC - Tinned Copper

Total Number of Conductors: 8

#### Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Wall Thickness (mm)
Tefzel®	ETFE - Ethylene Tetrafluoroethylene	0.381

#### Outer Shield

Outer Shield Material:

Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum-Kapton® Foil	100

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
22	7x30	TC - Tinned Copper

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material	Nom. Wall Thickness (mm)
Tefzel®	ETFE - Ethylene Tetrafluoroethylene	0.635

#### Overall Cable

Overall Nominal Diameter: 8.738 mm

#### Pair

Pair Color Code Chart:

Number	Color
1	Black & Red
2	Black & White
3	Black & Green
4	Black & Blue

### Mechanical Characteristics (Overall)

Operating Temperature Range: -60°C To +150°C

Bulk Cable Weight: 98.221 Kg/Km

Max. Recommended Pulling Tension: 498.198 N

Min. Bend Radius/Minor Axis: 88.900 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II): Yes

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

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

## METRIC MEASUREMENT VERSION

### 85164 Multi-Conductor - High-Temperature Control and Instrumentation Cable

CA Prop 65 (CJ for Wire & Cable):	Yes
MIL Order #39 (China RoHS):	Yes
<b>Plenum/Non-Plenum</b>	
Plenum (Y/N):	No

#### Electrical Characteristics (Overall)

##### Nom. Characteristic Impedance:

**Impedance (Ohm)**  
73

##### Nom. Inductance:

**Inductance (µH/m)**  
0.610266

##### Nom. Capacitance Conductor to Conductor:

**Capacitance (pF/m)**  
75.463

##### Nom. Capacitance Cond. to Other Conductor & Shield:

**Capacitance (pF/m)**  
131.24

##### Nom. Conductor DC Resistance:

**DCR @ 20°C (Ohm/km)**  
30.5133

##### Max. Operating Voltage - Non-UL:

**Voltage**  
300 V RMS

##### Max. Recommended Current:

**Current**  
4 Amps per conductor @ 25°C

#### Notes (Overall)

Notes: Tefzel and Kapton are DuPont trademarks.

#### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
85164 368100	100 FT	8.300 LB	CLEAR, TRANSPARENT	C	4 PR#20 TEFZEL FS TEFZEL
85164 3681000	1,000 FT	71.000 LB	CLEAR, TRANSPARENT	C	4 PR#20 TEFZEL FS TEFZEL

##### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2    Revision Date: 12-06-2012

© 2015 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.