Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

82761 Multi-Conductor - Single-Pair Cable

Description:

22 AWG stranded (7x30) TC conductors, plenum, FEP insulation, twisted pair, overall Beldfoil® shield (100% coverage), 22 AWG stranded TC drain wire, Flamarrest® jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
1	22	7x30	TC - Tinned Copper

Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)
FEP - Fluorinated Ethylene Propylene	.006

Outer Shield

Outer Shield Material:

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

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
22	Stranded	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material	Nom. Wall Thickness (in.)
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	.014

Overall Cabling

Overall Nominal Diameter:	0.116 in.

Pair

Pair Color Code Chart:

Number	Color
1	Black & Red

Mechanical Characteristics (Overall)

Operating Temperature Range:	0°C To +75°C
Bulk Cable Weight:	10.800 lbs/1000 ft.
Max. Recommended Pulling Tension:	27 lbs.
Min. Bend Radius (Install)/Minor Axis:	1.200 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
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
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Flame Test

UL Flame Test:	NFPA 262
C(UL) Flame Test:	FT6

Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	8761

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
42

Nom. Inductance:

Inductance (µH/ft)
.16

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
35

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
67

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
15

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
12

Max. Operating Voltage - UL:

Voltage
300 V RMS

Max. Recommended Current:

Current
2.8 Amps per conductor @ 25°C

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
82761 877U1000	1,000 FT	13.000 LB	NATURAL		1 PR #22 FEP FS FLRST
82761 877U500	500 FT	7.000 LB	NATURAL		1 PR #22 FEP FS FLRST
82761 8771000	1,000 FT	11.000 LB	NATURAL	C	1 PR #22 FEP FS FLRST

Notes:
C = CRATE REEL PUT-UP.

Introduction

Belden® paired cable products are manufactured in a variety of gage sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including Plenum and High-Temperature versions to meet the technical requirements of many different types of systems.

Paired cables allow balanced signal transmission, which results in lower crosstalk through common mode rejection. Due to the improved noise immunity of twisted pairs, they generally permit higher data speeds than multi-conductor cables.

As an aid to proper cable selection, both the suggested working voltages and the maximum temperature ratings are indicated for each applicable paired cable selection.

Most of our paired cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a paired cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

Paired Cables Packaging

Belden's unique UnReel® cable dispenser is available for many of the paired cable products listed in this section. The letter "U" before the specified put-up length denotes UnReel packaging.

Plenum-Rated

Overall Beldfoil® Shield

Audio, Control and Instrumentation Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Nominal Capacitance			
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m
22 AWG Stranded (7x30) Tinned Copper Conductors • Twisted Pair • Overall Beldfoil Shield (100% Coverage) • 22 AWG Stranded TC Drain Wire																		
Plenum • FEP Insulation • Red FEP Jacket																		
300V RMS	**88761**	NEC:	1	Black,	100	30.5	2.7	1.2	.006	.15	.014	.36	.119	3.02	35	115	67	220
		CMP		Red	U-500	U-152.4	7.5	3.4										
		CEC:			500	152.4	7.5	3.4										
		CMP FT6			U-1000	U-304.8	15.0	6.8										
					1000	304.8	12.0	5.5										
Z-Fold®																		
Plenum • FEP Insulation • Red Fluorocopolymer Jacket																		
300V RMS	**87761**	NEC:	1	Black,	500	152.4	7.0	3.2	.006	.15	.014	.36	.116	2.95	35	115	67	220
		CMP		Red	1000	304.8	11.0	5.0										
		CEC:																
		CMP FT6																
Z-Fold®																		
Plenum • FEP Insulation • Natural Flamarrest® Jacket																		
300V RMS	**82761**	NEC:	1	Black,	U-500	U-152.4	7.0	3.2	.006	.15	.014	.36	.116	2.95	35	115	67	220
		CMP		Red	U-1000	U-304.8	14.0	6.4										
		CEC:			1000	304.8	11.0	5.0										
		CMP FT6																
Z-Fold®																		
18 AWG Stranded (19x30) Tinned Copper Conductors • Twisted Pair • Overall Beldfoil Shield (100% Coverage) • 20 AWG Stranded TC Drain Wire																		
Plenum • FEP Insulation • Red FEP Jacket																		
300V RMS	**88760**	NEC:	1	Black,	100	30.5	3.7	1.7	.007	.18	.014	.36	.150	3.81	51	167	97	318
		CMP		Red	U-500	U-152.4	12.5	5.7										
		CEC:			500	152.4	11.0	5.0										
		CMP FT6			U-1000	U-304.8	24.0	10.9										
					1000	304.8	22.0	10.0										
Z-Fold®																		
Plenum • FEP Insulation • Red Fluorocopolymer Jacket																		
300V RMS	**87760**	NEC:	1	Black,	U-500	U-152.4	12.5	5.7	.007	.18	.014	.36	.150	3.81	51	167	97	318
		CMP		Red	500	152.4	10.5	4.8										
		CEC:			1000	304.8	21.0	9.5										
		CMP FT6																
Z-Fold®																		
Plenum • FEP Insulation • Natural Flamarrest Jacket																		
300V RMS	**82760**	NEC:	1	Black,	U-500	U-152.4	12.0	5.5	.007	.18	.014	.36	.150	3.81	51	167	97	318
		CMP		Red	U-1000	U-304.8	22.0	10.0										
		CEC:			1000	304.8	21.0	9.5										
		CMP FT6																
Z-Fold®																		

TC = Tinned Copper

*Capacitance between conductors.

**Capacitance between one conductor and other conductors connected to shield.