## **Detailed Specifications & Technical Data**

**ENGLISH MEASUREMENT VERSION** 



8677 Multi-Conductor - Duplex Primary Wire





## **Description:**

16 AWG stranded (19x29) bare copper conductors, conductors parallel, PVC insulation, PVC jacket.

## **Physical Characteristics (Overall)**

#### Conductor

#### AWG:

# Conductors	AWG	Stranding	<b>Conductor Material</b>
2	16	19x29	BC - Bare Copper

#### Insulation

#### **Insulation Material:**

Insulation Material	Wall Thickness (in.)
PVC - Polyvinyl Chloride	.024

#### **Outer Shield**

#### **Outer Shield Material:**

Outer Shield Material
Unshielded

#### **Outer Jacket**

#### **Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.022

#### **Overall Cabling**

#### **Overall Cabling Color Code Chart:**

Number	Color
1	Brown
2	Red

Overall Nominal Diameter: 0.149 x 0.254 in.

## **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-20°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	29.800 lbs/1000 ft.
Max. Recommended Pulling Tension:	60.800 lbs.
Min. Bend Radius (Install)/Minor Axis:	2.200 in.

## **Applicable Specifications and Agency Compliance (Overall)**

#### **Applicable Standards & Environmental Programs**

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):	07/01/2005
EU Directive 2002/96/EC (WEEE):	Yes

# **Detailed Specifications & Technical Data**





## 8677 Multi-Conductor - Duplex Primary Wire

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:** UL1685 UL Loading, VW-1 Plenum/Non-Plenum Plenum (Y/N): No

## **Electrical Characteristics (Overall)**

Max. Operating Voltage - UL:

Voltage 300 V RMS

Max. Recommended Current:

Current

6.5 Amps per conductor @ 25°C

## **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8677 060500	500 FT	18.500 LB	CHROME	С	2#16 PVC PARALLEL

Notes: C = CRATE REEL PUT-UP.

## Introduction

Belden® multi-conductor cables are manufactured in a wide variety of gage sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including Plenum and High-Temperature versions. These cables meet the technical requirements of many different types of systems. In fact, Belden offers one of the broadest lines of UL Listed, NEC and CEC multi-conductor cables available from any single source.

Applications for multi-conductor cables include computers, communications, instrumentation, sound, control, audio, and data transmission. Each of these cables is designed to protect signal integrity under critical conditions by reducing hum, noise, and crossfalk

To assist you in selecting the proper cable for your application, both the suggested working voltages and the maximum temperature ratings are indicated for each applicable product in this section.

Most of our multi-conductor 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 multi-conductor cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

#### **Multi-Conductor Cables Packaging**

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

## **Selection Guide**

# Shielded Multi-Conductor Computer Cables for RS-232 Applications

				Cable	Series*		
Specifica	ntions		9925	9608	9533	9939	
Conductor Si		28					
(AWG)		24	1	1	1		
		22			-	1	
		20					
		18					
	Pac	je No.	4.18	4.17	4.11	4.19	
Insulation:	S-R PVC	,		1	1	1	
	Polyethylene			-	-		
	Polypropylene	9					
	Datalene® †	-	1				
Shield:	Overall Foil		,		1		
	Drain Wire		1		1		
	Overall Foil/B	raid	1	1	-	1	
	Braid Coveraç		65%	65%		65%	
Drain Wire O		,-	Yes	No	Yes	No	
No. of Cond.		1	100	- 110			
		2					
		3	1	1	1	/	
		4	1	/	1	1	
		5	1	/	1	1	
		6	1	1	/	1	
		7	1	/	1	1	
		8	1	/	1	1	
		9	1	/	1	1	
		10	1	1	/	1	
		11	·	•	•	•	
		12					
		13					
		15	1	1	/	1	
		17	·		•	•	
		18					
		19					
		20			/		
		25	1	1	<b>✓</b>	1	
		27	Ť	•	•	•	
		30			1		
		31			_		
		37	1	1		1	
		40	_		1	*	
		50		1	1	1	
		J 00	12.0	30.0	30.0	٧	

<sup>\*</sup>All cables are UL-listed.



<sup>\*\*</sup>Capacitance may vary on some cables.

<sup>†</sup> Foam high density polyethylene.

## **Unshielded**

Antenna Rotor Control Cables, Security/Audio Systems and Duplex Primary Wire

Description	Part	UL NEC/	No.	Color	AWG	Standard	Lengths	Stan Unit V	dard Veight	Insul Thick	ation mess	Jac Thick	ket iness	Nomi	nal OD
Description	No.	C(UL) CEC Type	of Cond.	Code	(stranding)	Ft.	m	Lbs.	kg	inch	mm	inch	mm	Inch	mn
ntenna Rotor (	Cables St	randed Tin	ned Co	pper Cor	ductors • C	Conductors	Cabled								
PVC Insulation	• Chrom	e PVC Ja	acket												
L AWM Style 2464 800V 80°C)	9405	NEC: CM	8	Black, White	2@16 (19x28)	500 1000	152.4 304.8	47.0 92.0	21.3 41.8	.019	.48	.032	.81	.345	8.7
VW-1		0		Brown, Red, Yellow, Blue, Orange, Green	6@18 (16x30)	.000	000	02.0	5	.018	.46				
IL AWM Style 2576	8448	NEC:	8	Black,	2@18	U-500	U-152.4	25.0	11.4	.019	.48	.032	.81	.259	6.5
150V 80°C) /W-1		CMG CEC: CMG FT4		White  Red, Green, Brown, Blue, Yellow, Orange	(16x30) 6@22 (7x30)	500 U-1000 1000	152.4 U-304.8 304.8	25.5 49.0 50.0	11.6 22.2 22.7	.010	.25				
ecurity/Audio/l PVC Insulation DOV RMS 75°C				Black,	20	u-500	U-152.4	12.5	5.7	ors Pa	rallel —			.177	4.5
	0.01														
	31 31 32 33			Green, Red, White	(7x28)	500 U-1000 1000	152.4 U-304.8 304.8	12.5 24.0 25.0	5.7 10.9 11.4						
Puplex Primary	Wire Stra			Red, White		U-1000 1000	U-304.8 304.8	24.0	10.9						
Duplex Primary	Wire Stra		acket	Red, White	tors • Conc	U-1000 1000 ductors Pa	U-304.8 304.8 rallel	24.0 25.0	10.9 11.4	024	61	022	56	140	2 7
Ouplex Primary PVC Insulation 00V RMS 75°C W-1	Wire Stra			Red, White		U-1000 1000	U-304.8 304.8	24.0	10.9	.024	.61	.022	.56	.149 X	Х
Puplex Primary PVC Insulation DOV RMS 75°C	Wire Stra		acket	Red, White	tors • Cond	U-1000 1000 ductors Pa	U-304.8 304.8 rallel	24.0 25.0	10.9 11.4	.024	.61	.022	.56		6.4
Puplex Primary PVC Insulation DOV RMS 75°C	Wire Stra • Chrom 8677		2	Red, White	16 (19x29)	U-1000 1000 ductors Pa	U-304.8 304.8 rallel	24.0 25.0	10.9 11.4					x .254	4.2 X
Puplex Primary PVC Insulation DOV RMS 75°C	Wire Stra • Chrom 8677		2	Red, White	16 (19x29)	U-1000 1000 ductors Pa	U-304.8 304.8 rallel	24.0 25.0	10.9 11.4					.168 x .290 .186 x	4.2 4.2 x 7.3 4.7 x
Puplex Primary PVC Insulation DOV RMS 75°C	Wire Stra • Chrome 8677		2 2	Red, White er Conduct Brown, Red Brown, Red	16 (19x29) 14 (19x27) 12	U-1000 1000 ductors Pa 500	U-304.8 304.8 rallel 152.4	24.0 25.0 18.5 23.5	10.9 11.4 8.4 10.7	.023	.58	.023	.58	.254 .168 .x .290	3.7 x 6.4 4.2 x 7.3 4.7 x 8.3 5.7 x

