

## 8489 Multi-Conductor - Audio, Control and Instrumentation Cable



### Description:

18 AWG stranded (19x30) tinned copper conductors, conductors cabled, PVC insulation, PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Conductors	AWG	Stranding	Conductor Material
4	18	19x30	TC - Tinned Copper

#### Insulation

##### Insulation Material:

Insulation Material	Wall Thickness (in.)
PVC - Polyvinyl Chloride	.017

#### Outer Shield

##### Outer Shield Material:

Outer Shield Material
Unshielded

#### Outer Jacket

##### Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.032

#### Overall Cabling

##### Overall Cabling Lay Length & Direction:

Length (in.)	Twists (ft.)
3	4

##### Overall Cabling Color Code Chart:

Number	Color
1	Black
2	White
3	Red
4	Green

Overall Nominal Diameter: 0.257 in.

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +60°C
UL Temperature Rating:	60°C (UL AWM Style 2598)
Bulk Cable Weight:	44.100 lbs/1000 ft.
Max. Recommended Pulling Tension:	83 lbs.
Min. Bend Radius (Install)/Minor Axis:	2.600 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMG
CEC/C(UL) Specification:	CMG

## 8489 Multi-Conductor - Audio, Control and Instrumentation Cable

**AWM Specification:** UL Style 2598 (300 V 60°C)

**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

**C(UL) Flame Test:** FT4

### Plenum/Non-Plenum

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

**Plenum Number:** 88489, 82489

## Electrical Characteristics (Overall)

### Nom. Capacitance Conductor to Conductor:

**Capacitance (pF/ft)**

26

### Nom. Conductor DC Resistance:

**DCR @ 20°C (Ohm/1000 ft)**

6.3

### Max. Operating Voltage - UL:

**Voltage**

300 V RMS (UL AWM Style 2598)

### Max. Recommended Current:

**Current**

4 Amps per conductor @ 25°C

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8489 060U1000	1,000 FT	46.000 LB	CHROME		4 #18 PVC PVC
8489 060U500	500 FT	23.500 LB	CHROME		4 #18 PVC PVC
8489 060100	100 FT	5.100 LB	CHROME		4 #18 PVC PVC
8489 0601000	1,000 FT	48.000 LB	CHROME	C	4 #18 PVC PVC
8489 060250	250 FT	12.000 LB	CHROME		4 #18 PVC PVC
8489 060500	500 FT	24.000 LB	CHROME	C	4 #18 PVC PVC

### 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 crosstalk.

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

Specifications		Cable Series*			
		9925	9608	9533	9939
<b>Conductor Size:</b> (AWG)	28				
	24	✓	✓	✓	
	22				✓
	20				
	18				
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<b>Insulation:</b>	S-R PVC		✓	✓	✓
	Polyethylene				
	Polypropylene				
	Datalene®†	✓			
<b>Shield:</b>	Overall Foil			✓	
	Drain Wire	✓		✓	
	Overall Foil/Braid	✓	✓		✓
	Braid Coverage	65%	65%		65%
<b>Drain Wire Overall:</b>		Yes	No	Yes	No
<b>No. of Cond. Available:</b>	1				
	2				
	3	✓	✓	✓	✓
	4	✓	✓	✓	✓
	5	✓	✓	✓	✓
	6	✓	✓	✓	✓
	7	✓	✓	✓	✓
	8	✓	✓	✓	✓
	9	✓	✓	✓	✓
	10	✓	✓	✓	✓
	11				
	12				
	13				
	15	✓	✓	✓	✓
	17				
	18				
	19				
	20			✓	
	25	✓	✓	✓	✓
	27				
30			✓		
31					
37	✓	✓		✓	
40			✓		
50		✓	✓	✓	
<b>Capacitance ** (pF/ft.)</b>		12.0	30.0	30.0	35.0

\*All cables are UL-listed.

\*\*Capacitance may vary on some cables.

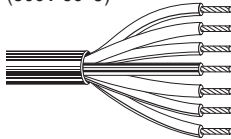
† Foam high density polyethylene.

# Unshielded

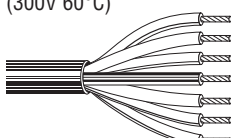
## Audio, Control and Instrumentation Cables Non-Plenum

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD	
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm

**20 AWG** Stranded (7x28) Tinned Copper Conductors • Conductors Cabled

PVC Insulation • Chrome PVC Jacket																	
 <p>UL AWM Style 2464 (300V 80°C)</p>	<b>9444</b>	NEC:	4	See Chart 1 (Tech Info Section)	100	30.5	4.0	1.8	.013	.33	.032	.81	.217	5.51			
		CMG			U-500	U-152.4	16.5	7.5									
		CEC:			500	152.4	16.5	7.5									
		CMG FT4			U-1000	U-304.8	32.0	14.5									
					1000	304.8	33.0	15.0									
	<b>9445</b>	NEC:	5	See Chart 1 (Tech Info Section)	100	30.5	4.4	2.1	.013	.33	.032	.81	.239	6.07			
		CMG			U-500	U-152.4	20.0	9.1									
		CEC:			500	152.4	19.5	8.9									
		CMG FT4			U-1000	U-304.8	38.0	17.2									
					1000	304.8	40.0	18.2									
	<b>9439</b>	NEC:	7	See Chart 1 (Tech Info Section)	100	30.5	5.7	2.6	.013	.33	.032	.81	.260	6.60			
		CMG			U-500	U-152.4	26.0	11.9									
		CEC:			500	152.4	27.0	12.3									
		CMG FT4			U-1000	U-304.8	51.0	23.1									
					1000	304.8	53.0	24.1									
	<b>9455</b>	NEC:	9	See Chart 1 (Tech Info Section)	100	30.5	7.1	3.2	.013	.33	.035	.89	.317	8.05			
		CMG			U-500	152.4	35.0	15.9									
		CEC:			1000	304.8	67.0	30.4									
		CMG FT4															
	<b>9457</b>	NEC:	12	See Chart 1 (Tech Info Section)	100	30.5	9.2	4.2	.013	.33	.035	.89	.338	8.58			
		CMG			U-500	152.4	45.0	20.4									
		CEC:			1000	304.8	88.0	40.0									
		CMG FT4															
	<b>9458</b>	NEC:	15	See Chart 2R (Tech Info Section)	100	30.5	12.6	5.7	.013	.33	.040	1.02	.389	9.88			
		CMG			U-500	152.4	60.5	27.5									
		CEC:			1000	304.8	118.0	53.6									
		CMG FT4															

**18 AWG** Stranded (19x30) Tinned Copper Conductors • Conductors Cabled

PVC Insulation • Chrome PVC Jacket																	
 <p>UL AWM Style 2598 (300V 60°C)</p>	<b>8489</b>	NEC:	4	See Chart 1 (Tech Info Section)	100	30.5	5.1	2.3	.017	.43	.032	.81	.257	6.53			
		CMG			U-500	U-152.4	23.5	10.7									
		CEC:			500	152.4	24.0	10.9									
		CMG FT4			U-1000	U-304.8	46.0	20.9									
					1000	304.8	48.0	21.8									
	<b>8465</b>	NEC:	5	See Chart 1 (Tech Info Section)	100	30.5	6.4	2.9	.017	.43	.033	.84	.282	7.16			
		CMG			U-500	U-152.4	29.5	13.5									
		CEC:			500	152.4	30.0	13.6									
		CMG FT4			U-1000	U-304.8	58.0	26.3									
					1000	304.8	60.0	27.4									
	<b>8467</b>	NEC:	7	See Chart 1 (Tech Info Section)	100	30.5	8.3	3.8	.017	.43	.037	.94	.314	7.98			
		CMG			U-500	152.4	40.5	18.4									
		CEC:			1000	304.8	79.0	35.9									
		CMG FT4															
	<b>8469</b>	NEC:	9	See Chart 1 (Tech Info Section)	100	30.5	10.5	4.8	.017	.43	.037	.94	.364	9.25			
		CMG			U-500	152.4	26.0	11.8									
		CEC:			500	152.4	51.5	23.4									
		CMG FT4			U-1000	U-304.8	105.0	47.7									
	<b>8466</b>	NEC:	12	See Chart 2R (Tech Info Section)	100	30.5	13.2	6.0	.017	.43	.040	1.02	.412	10.46			
		CMG			U-500	152.4	32.5	14.8									
		CEC:			500	152.4	66.0	30.0									
		CMG FT4			U-1000	U-304.8	131.0	59.5									
	<b>8468</b>	NEC:	15	See Chart 2R (Tech Info Section)	100	30.5	17.9	8.1	.017	.43	.045	1.14	.500	12.70			
		CMG			U-500	152.4	89.5	40.6									
		CEC:			1000	304.8	175.0	79.5									
		CMG FT4															