Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

9721 Multi-Conductor - Audio, Control and Instrumentation Cable

Description:

16 AWG stranded (19x29) tinned copper conductors, conductors cabled, PVC insulation, PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
8	16	19x29	TC - Tinned Copper

Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)
PVC - Polyvinyl Chloride	.031

Insulation Resistance:	500 Megaohms/1000 ft.

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.045

Overall Cabling

Overall Cabling Lay Length & Direction:

Length (in.)	Twists (ft.)
9.11	1.3

Overall Cabling Color Code Chart:

Number	Color
1	Black
2	White
3	Red
4	Green
5	Orange
6	Blue
7	White/Black
8	Red/Black

Overall Nominal Diameter:	0.496 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +80°C
UL Temperature Rating:	80°C
Bulk Cable Weight:	160.500 lbs/1000 ft.
Max. Recommended Pulling Tension:	243 lbs.
Min. Bend Radius (Install)/Minor Axis:	5 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):	10/01/2005
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:	FT1
Other Flame Test:	VW-1, FT1

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
19.5

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
4.4

Max. Operating Voltage - UL:

Voltage
600 V RMS

Max. Recommended Current:

Current
5 Amps per conductor @ 25°C

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9721 060100	100 FT	16.200 LB	CHROME	C	8 #16 STR PVC FRPVC
9721 0601000	1,000 FT	158.000 LB	CHROME	C	8 #16 STR PVC FRPVC
9721 060500	500 FT	81.000 LB	CHROME	C	8 #16 STR PVC FRPVC

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

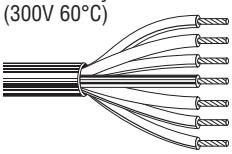
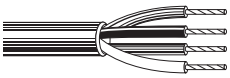
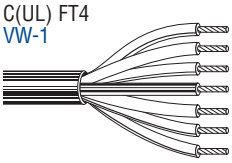
Shielded Multi-Conductor Computer Cables for RS-232 Applications

Specifications			Cable Series* 9925	9608	9533	9939
Conductor Size: (AWG)		28				
		24	✓	✓	✓	
		22				✓
		20				
		18				
		Page No.	4.18	4.17	4.11	4.19
Insulation:	S-R PVC			✓	✓	✓
	Polyethylene					
	Polypropylene					
	Datalene®†		✓			
Shield:	Overall Foil				✓	
	Drain Wire		✓		✓	
	Overall Foil/Braid		✓	✓		✓
	Braid Coverage		65%	65%		65%
Drain Wire Overall:			Yes	No	Yes	No
No. of Cond. Available:		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		✓	✓	✓
Capacitance ** (pF/ft.)			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
Plenum-Rated and 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
18 AWG Stranded (19x30) Tinned Copper Conductors • Conductors Cabled *(continued)*														
PVC Insulation • Chrome PVC Jacket														
UL AWM Style 2598 (300V 60°C) 	**8619**	NEC: CMG CEC: CMG FT4	19	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	20.3 101.0 198.0	9.2 45.9 90.0	.017	.43	.045	1.14	.490	12.45
	9626	NEC: CMG CEC: CMG FT4	25	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	29.1 139.5 277.0	13.2 63.3 125.8	.017	.43	.060	1.52	.612	15.54
Plenum • FEP Insulation • Red FEP Jacket														
300V RMS 	**88489**	NEC: CMP CEC: CMP FT6	4	Black, White, Red, Green	500† 1000†	152.4 304.8	14.5 29.0	6.6 13.2	.007	.18	.009	.23	.161	4.09
Suitable for Outdoor and Direct Burial applications.														
Plenum • FEP Insulation • Natural Flamarrest® Jacket														
300V RMS 	**82489**	NEC: CMP CEC: CMP FT6	4	Black, White, Red, Green	U-1000† 1000†	U-304.8 304.8	31.0 29.0	14.1 13.2	.007	.18	.014	.36	.170	4.32
16 AWG Stranded (19x29) Tinned Copper Conductors • Conductors Cabled														
PVC Insulation • Cabled Wire (No Jacket)														
UL AWM Style 1007 (300V 80°C) VW-1 	**9498**	—	3	Orange, Black, Orange w/ Black Stripe	1000	304.8	42.0	19.1	.027	.69	—	—	.243	6.17
PVC Insulation • Chrome PVC Jacket														
600V RMS 80°C C(UL) FT4 VW-1 	**8620**	—	4	See Chart 2 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	8.9 44.0 88.0	4.0 20.0 40.0	.031	.79	.042	1.07	.376	9.55
	9620	—	5	See Chart 2 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	11.0 53.5 109.0	5.0 24.3 49.5	.031	.79	.042	1.07	.411	10.44
	8621	—	7	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	13.2 73.5 143.0	6.0 33.4 65.0	.031	.79	.045	1.14	.458	11.63
	9721	—	8	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	27.3 136.5 269.0	12.4 62.0 122.1	.031	.79	.045	1.14	.496	12.60
	9621	—	9	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	17.0 94.0 181.0	7.8 42.7 82.2	.031	.79	.045	1.14	.533	13.54
	8622	—	12	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	27.0 126.5 251.0	12.3 57.4 114.0	.031	.79	.060	1.52	.627	15.93
	8623	—	15	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	32.5 155.5 314.0	14.8 70.6 142.6	.031	.79	.060	1.52	.694	17.63
	8624	—	19	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	36.8 178.5 361.0	16.7 81.0 164.0	.031	.79	.065	1.65	.740	18.80
	9622	—	25	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	49.0 236.0 480.0	22.2 107.1 217.9	.031	.79	.065	1.65	.879	22.33

†Spools and/or UnReel® cartons are one piece, but length may vary ± 10% for spools and ± 5% for UnReel from length shown.