# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



1192A Multi-Conductor - Four-Conductor Star Quad, Low-Impedance Cable





# **Description:**

24 AWG stranded (42x40) high-conductivity bare copper conductors, polyethylene insulation, tinned copper braid shield (95% coverage), PVC jacket.

# **Physical Characteristics (Overall)**

### Conductor

#### AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (in.)
4	24	42x40	SBC - Soft Bare Copper	.024

### Insulation

### Insulation Material:

Insulation Material	Wall Thickness (in.)	Dia. (in.)
PE - Polyethylene	.016	.056

### **Outer Shield**

### **Outer Shield Material:**

	Outer Shield Material	_ , ,
Braid	TC - Tinned Copper	95

### **Outer Jacket**

### **Outer Jacket Material:**

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

### **Overall Cabling**

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

Number	Color
1	Blue
2	White
3	Blue w/White Stripe
4	White w/Blue Stripe

Overall Nominal Diameter:

0.245 in.

# **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-30°C To +75°C
Non-UL Temperature Rating:	75°C
Bulk Cable Weight:	33 lbs/1000 ft.
Max. Recommended Pulling Tension:	21 lbs.
Min. Bend Radius (Install)/Minor Axis:	2.450 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

# **Detailed Specifications & Technical Data**

### **ENGLISH MEASUREMENT VERSION**



### 1192A Multi-Conductor - Four-Conductor Star Quad, Low-Impedance Cable

EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2004  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	
EU Directive 2002/96/EC (WEEE): Yes  EU Directive 2003/11/EC (BFR): Yes	
EU Directive 2002/96/EC (WEEE): Yes	
EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2004	
FUR 110.0 II B 1 / / / / / / O O O O O O O O O O O O O	

### Plenum/Non-Plenum

Plenum (Y/N): No

### **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm)
40

Nom. Inductance:

Inductance (µH/ft) .21

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft) 39.2

Nom. Cap. Between Cond. in a Quad Config.:

Capacitance (pF/ft) 57.4

**Nominal Velocity of Propagation:** 

**VP (%)** 66

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 26.6

**Nominal Outer Shield DC Resistance:** 

DCR @ 20°C (Ohm/1000 ft) 7.1

Max. Operating Voltage - UL:

Voltage 100 V RMS

Max. Operating Voltage - Other:

 Voltage
 Description

 18.0 kV
 Nom. breakdown voltage between conductors

 16.9 kV
 Nom. breakdown voltage conductors to shield

Max. Recommended Current:

Current
2.9 Amps per conductor @ 25°C

Other Electrical Characteristic 1: 2/c 21 AWG equivalent DCR when connected to a 3-pin XLR

# **Notes (Overall)**

**Notes:** Quad connection scheme: The two blue wires (or wires directly opposite one another) are connected together to form one conductor, and similarly the two white wires (or remaining wires) are connected together to form the second conductor.

### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1192A B59100	100 FT	4.100 LB	BLACK, MATTE		4 #24 PE SH PVC BLK MTT
1192A B591000	1,000 FT	37.000 LB	BLACK, MATTE	С	4 #24 PE SH PVC BLK MTT
1192A B59500	500 FT	16.500 LB	BLACK, MATTE	С	4 #24 PE SH PVC BLK MTT
1192A G7V1000	1,000 FT	37.000 LB	RED, MATTE	С	4 #24 PE SH PVC RED MTT

# **Detailed Specifications & Technical Data**





# 1192A Multi-Conductor - Four-Conductor Star Quad, Low-Impedance Cable

1192A G7W1000	1,000 FT	37.000 LB	GREEN, MATTE	С	4 #24 PE SH PVC GRN MTT
1192A G7X1000	1,000 FT	37.000 LB	BLUE, MATTE	С	4 #24 PE SH PVC BLU MTT
1192A G7X500	500 FT	16.500 LB	BLUE, MATTE		4 #24 PE SH PVC BLU MTT
1192A G8M1000	1,000 FT	37.000 LB	YELLOW, MATTE		4 #24 PE SH PVC YEL MTT
1192A U901000	1,000 FT	37.000 LB	GRAY, MATTE	С	4 #24 PE SH PVC GRY MTT

Notes: C = CRATE REEL PUT-UP.

# **Microphone and Musical Instrument Cable**

Overview



### **Flexible Microphone Cables**

Belden® microphone cable is used for connecting low level microphones or musical instruments. Key properties of microphone (MIC) cable are ruggedness, flexibility, flex life and interference immunity.

MIC cable constructions utilize either 1-, 2-, 3- or 4-conductor configurations. Cable selection depends on whether the MIC or instrument is of a high- or low-impedance design. High-impedance MICs require unbalanced single conductor (coaxial) cables while low-impedance MICs utilize balanced 2-, 3-, or 4-conductor (quad) designs. Quad MIC cables are connected by attaching the two white conductors to one pin and two blue conductors to the other pin in a balanced-line XLR type connector. Besides the common-mode rejection of a standard balanced line, this gives common-mode rejection at each pin, greatly reducing noise and interference.

### **High-conductivity Copper**

All Belden microphone cables with bare copper conductors utilize only high-conductivity copper produced by a process called Electrolytic Tough Pitch (ETP). This refining process produces a copper conductor that is 99.95% pure copper resulting in high-conductivity per ASTM B115. The high purity obtained from ETP copper results in microphone cable performance that is comparable to that of oxygen-free copper cables.

- Plastic cables recommended for:
   Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.
- Rubber cables recommended for:
   Greater abrasion and impact resistance and extra limpness so the cable will lie flat on stage or on studio floors.

### **Four-Conductor Star Quad Low-Impedance Cables**

**Quad connection scheme:** The two blue wires (or wires directly opposite one another) are connected together to form one conductor, and similarly the two white wires (or remaining wires) are connected together to form the second conductor.

Conductors joined in this manner lower the possibility of induced noise.



# **Microphone and Musical Instrument Cable**

Four-Conductor Star Quad, Low-Impedance Cables<sup>†</sup> High-Conductivity Copper



	Post UL NEC/ No. o				Standard Lengths				Insulation Thickness						Nominal OD		Nominal Capacitar		ance
Description	Part	C(UL) CEC		Color	lor		UIIIL V	verynt	HIIIG	(11699	HILLER	111699	U	ע	*	*	**	**	
Description	No.	Type	of Cond.	Code	Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	pF/ Ft.	pF/ m	pF/ Ft.	pF/ m	

28 AWG Stranded (19x40) High-conductivity Silver-plated Copper Alloy Conductors • Tinned Copper Braid Shield (78% Coverage)

26 Awg Stranded (19x40) high-conductivity Silver-plated Copper Alloy Conductors • Timed Copper Braid Shleid (76% Coverage)																		
Polypropylene Insulation • Matte PVC Jacket (Available in Red, Yellow, Blue, Beige or Black)																		
Mini Star Quad	1804A	_	4	Blue/White,	100 -	30.5	1.6	0.7	.006	.15	.014	.36	.115	2.92	40	131	60	197
100V RMS 60°C				White/Blue	500 ■	152.4	4.5	2.0										
	, ,								2/c 2	25 AW	G equiv	alent	DCR w	hen co	nnecte	ed to a	3-pin	XLR.

<sup>▲100</sup> ft. put-up available in Black only.

One Blue conductor and one White conductor are striped for use in MIDI and other four conductor applications.

26 AWG Stranded (30x40) High-conductivity BC Conductors • TC "French Braid" Shield (95% Coverage) • BC Drain Wire

20 ATTG Stranded (50%	(40) Tilgil-C	Official	ty DC	o Conducto	13 1 1 0 1	Tellell Di	alu Si	ileiu (s	90 /0 C	JUVE	iaye)	· DC	Diai		5			
Polyethylene Insula	Polyethylene Insulation • Matte PVC Jacket (Available in Red, Green, Yellow, Blue, Gray or Black)																	
100V RMS 60°C	1172A	_	4	Blue/White, White/Blue	500 <b>*</b> 1000	152.4 304.8	13.5 25.0	6.1 11.3	.011	.28	.030	.76	.190	4.83	39	128	57	187
French Braid									2/c 2	23 AW	G equiv	/alent	DCR w	hen co	nnect	ed to a	3-pin	XLR.

<sup>\*500</sup> ft. put-up available in Black only.

One Blue conductor and one White conductor are striped for use in MIDI and other four conductor applications.

24 AWG Stranded (42x40) High-conductivity Bare Copper Conductors • Tinned Copper Braid Shield (95% Coverage)

Polyethylene Insu	Polyethylene Insulation • Matte PVC Jacket (Available in Red, Green, Yellow, Blue, Gray or Black)																	
100V RMS 75°C	1192A	_	4	Blue/White,	100 ▼	30.5	4.1	1.8	.016	.41	.045	1.14	.245	6.22	39	128	57	187
	20 20			White/Blue	500 <b>▼</b> 1000	152.4 304.8	16.5 37.0	7.5 16.8										
	20								2/c 2	21 AW	'G equi	valent	DCR w	hen co	nnect	ed to a	3-pin	XLR.

<sup>▼100</sup> ft. put-up available in Black only. 500 ft. put-up available in Blue or Black only.

One Blue conductor and one White conductor are striped for use in MIDI and other four conductor applications.

20 AWG Stranded (19x32) High-conductivity Tinned Copper Conductors • Rayon Braid • Tinned Copper Braid Shield (85% Coverage)

Polyethylene Insulation • Chrome PVC Jacket																		
UL AWM Style 2094	8404	_	4	Clear,	100	30.5	5.4	2.4	.016	.41	.032	.81	.252	6.40	23	75	49	161
(300V RMS 60°C)				Black,	500	152.4	23.0	10.4										
VW-1				Red,	U-1000	U-304.8	48.0	21.8										
				Green	1000	304.8	49.0	22.3	2/c 1	17 AW	G equiv	/alent	DCR w	hen co	nnecte	d to a	3-pin	XLR.

20 AWG Stranded (26x34) High-conductivity Tinned Copper Conductors • Rayon Braid • TC Braid Shield (85% Coverage) • Cotton Wrap

<b>EPDM Rubber Inst</b>	EPDM Rubber Insulation • Black EPDM Rubber Jacket																	
600V RMS 90°C	8424	_	4	Black,	100	30.5	6.8	3.1	.023	.58	.036	.91	.294	7.47	47	154	59	194
	30			White,	250	76.2	15.3	6.9										
	30			Red,	U-500	U-152.4	32.0	14.5	2/0	17 (1)	'G equiv	ulont	DCD w	thon oo	nnoote	nd to a	2 nin	VI D
	30			Green	500	152.4	30.5	13.8	2/6	I / AVV	d equiv	aieiii	DUN W	illell co	IIIIect	su io a	o-hiii	ALN.
	30				1000	304.8	64.0	29.1										

16 AWG Stranded (65x34) High-conductivity Tinned Copper Conductors • Rayon Braid • TC Braid Shield (85% Coverage) • Cotton Wrap

10 1111 01 0110111000 (00	,,,g		.,	.ou oopp			,					(00,0		0.490	, -			۳
EPDM Rubber Insulation • Black Neoprene Jacket																		
600V RMS 60°C VW-1	<del>_</del>	_	4	Black, White, Red,	100 250	30.5 76.2	11.3 28.3	5.1 12.8						10.57		98	66	216
	20			Green					2/c 1	13 AW	'G equi	valent	DCR w	hen co	nnecte	ed to a	3-pin	XLR.

BC = Bare Copper • EPDM = Ethylene Propylene Diene Monomer • TC = Tinned Copper

†**Quad connection scheme:** The two blue wires (or wires directly opposite one another) are connected together to form one conductor, and similarly the two white wires (or remaining wires) are connected together to form the second conductor.



May contain more than one piece. Min. length of any one piece is 50 ft.

<sup>\*</sup>Capacitance between conductors. \*\*Nom. capacitance between conductors in a Quad configuration.