

XTRA•GUARD® 1

MULTICONDUCTOR, SUPRASHIELD®

EXTRA-PREMIUM GRADE PVC JACKET FOR EXTENDED CABLE LIFE

UL TYPE CM, AWM 2464

CSA CMG FT4

300 VOLT

CHOOSE XTRA•GUARD 1 For:

- Unsurpassed Flame and Moisture Resistance
- Fast, Easy Stripping of Insulation and Jacket
- UL Recognition, UL Listing and CSA Certification
- **SUPRASHIELD** — Twice as Effective as Foil Shielding

XTRA•GUARD 1 APPLICATIONS:

- EIA RS 232C Interface (24, 22 AWG)
- High Technology Applications in Controlled Environments
- Point-Of-Sale Equipment
- Computer Peripherals
- Industrial Process Controls

CHARACTERISTICS

OPERATING TEMPERATURE:

- -20°C to 80°C — AWM
- -20°C to 75°C — CM

VOLTAGE RATING:

- 300 Volt

COLOR DESCRIPTION:

- Color Code: 24, 22 AWG Chart E Page 375,
20 AWG Chart D Page 375
- Jacket Colors: Gray, Black

PRODUCT DESCRIPTION:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded Premium PVC
- **SUPRASHIELD**: Aluminum/Polyester/Aluminum
Foil with Stranded Tinned Copper Drain Wire Equal in
Size to Insulated Conductors of Cable plus 70% Overall
Braid of Tinned Copper
- Nylon Rip Cord for Ease of Jacket Stripping
- Jacket: Premium PVC

SPECIFICATIONS

- UL Type CM, AWM Style 2464
- CSA CMG FT4
- Passes UL VW-1 Flame Test
- Passes CSA FT4 Flame Test



Passes
UL VW-1 Flame Test
Underwriters Laboratories Inc.

Certified
Canadian Standards Association



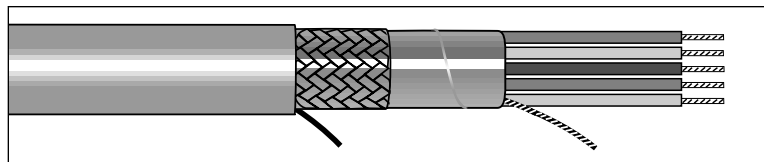
AVAILABILITY

- In Stock: Gray 100 ft (30,5m), 500 ft (152m) and
1000 ft (305m) put-ups
- Made-To-Order: Black, 1000 ft (305m) minimum

FIT® TUBING RECOMMENDATION

FIT® -221 — General Purpose, Irradiated Polyolefin (See Page 114 for
Product Specifications)

FIT® -321 — Medium Wall, Adhesive Lined, Irradiated Polyolefin (See Page 121 for Product Specifications)



24 AWG (0,23mm²), **7/32** (7x0,20mm), Insulation Thickness: **0.010"** (0,25mm)

XTRA•GUARD 1 Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
5112C	2	0.032	0,81	0.18	4,6
5113C	3	0.032	0,81	0.19	4,8
5114C	4	0.032	0,81	0.21	5,4
5116C	6	0.032	0,81	0.23	5,9
5118C	8	0.032	0,81	0.25	6,4
5120C	10	0.032	0,81	0.27	6,9
5120/15C	15	0.032	0,81	0.30	7,6
5120/20C	20	0.032	0,81	0.33	8,4
5120/25C	25	0.032	0,81	0.36	9,2
5120/30C	30	0.032	0,81	0.38	9,7
5120/40C	40	0.032	0,81	0.43	10,9
5120/50C	50	0.032	0,81	0.46	11,7

22 AWG (0,35mm²), **7/30** (7x0,25mm), Insulation Thickness: **0.010"** (0,25mm)

XTRA•GUARD 1 Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
5102C	2	0.032	0,81	0.20	5,0
5103C	3	0.032	0,81	0.21	5,4
5104C	4	0.032	0,81	0.22	5,6
5106C	6	0.032	0,81	0.25	6,4
5108C	8	0.032	0,81	0.27	6,9
5110C	10	0.032	0,81	0.30	7,6
5110/15C	15	0.032	0,81	0.33	8,4
5110/20C	20	0.032	0,81	0.36	9,2
5110/25C	25	0.032	0,81	0.39	9,8
5110/30C	30	0.032	0,81	0.42	10,9
5110/40C	40	0.032	0,81	0.47	11,8
5110/50C	50	0.032	0,81	0.51	12,9
5110/60C	60	0.053	1,35	0.60	15,4
5110/70C	70	0.053	1,35	0.63	16,0
5110/80C	80	0.053	1,35	0.66	16,8

20 AWG (0,56mm²), **7/28** (7x0,32mm), Insulation Thickness: **0.017"** (0,43mm)

XTRA•GUARD 1 Part No.	No. of Cond.	Jacket Thickness		Nominal Diameter	
		Inches	mm	Inches	mm
5152C	2	0.032	0,81	0.23	5,9
5153C	3	0.032	0,81	0.26	6,6
5154C	4	0.032	0,81	0.28	7,1
5156C	6	0.032	0,81	0.32	8,0
5158C	8	0.032	0,81	0.35	8,8
5160C	10	0.032	0,81	0.37	9,5
5160/15C	15	0.032	0,81	0.43	10,9
5160/20C	20	0.032	0,81	0.48	12,1
5160/25C	25	0.032	0,81	0.52	13,2
5160/30C	30	0.032	0,81	0.56	14,2
5160/40C	40	0.053	1,35	0.67	17,0
5160/50C	50	0.053	1,35	0.73	18,5
5160/60C	60	0.053	1,35	0.78	19,8

FOR COMPLETE PRODUCT PERFORMANCE DATA, SEE TECHNICAL SECTION IN THE BACK OF THIS BOOK.



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Email: info@alphawire.com

UL TYPE CM, AWM 2464
CSA CMG FT4
300 VOLT

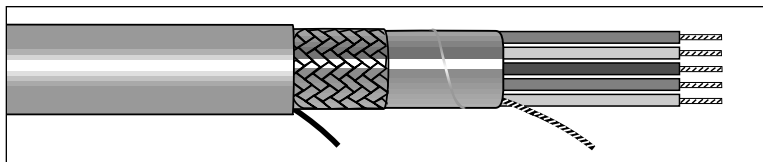
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CHARACTERISTICS

OPERATING TEMPERATURE:

- -20°C to 80°C — AWM
- -20°C to 75°C — CM

VOLTAGE RATING:

- 300 Volt

COLOR DESCRIPTION:

- Color Code: Chart D Page 375
- Jacket Colors: Gray, Black

PRODUCT DESCRIPTION:

- Conductor: Stranded Tinned Copper
- Insulation: Color-Coded Premium PVC
- **SUPRASHIELD**: Aluminum/Polyester/Aluminum Foil with Stranded Tinned Copper Drain Wire Equal in Size to Insulated Conductors of Cable plus 70% Overall Braid of Tinned Copper
- Nylon Rip Cord for Ease of Jacket Stripping
- Jacket: Premium PVC

18 AWG (0,81mm²), **16 / 30** (16x0,25mm), Insulation Thickness: **0.017"** (0,43mm)

XTRA•GUARD 1 Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
5162C, 5162/1C*	2	0.032	0,81	0.25	6,5
5163C, 5163/1C*	3	0.032	0,81	0.28	7,2
5164C	4	0.032	0,81	0.31	7,8
5166C	6	0.032	0,81	0.35	8,9
5168C	8	0.032	0,81	0.38	9,7
5170C	10	0.032	0,81	0.41	10,5
5170/15C	15	0.032	0,81	0.48	12,1
5170/20C	20	0.032	0,81	0.53	13,5
5170/25C	25	0.053	1,35	0.62	15,8
5170/30C	30	0.053	1,35	0.67	16,9
5170/40C	40	0.053	1,35	0.74	18,9

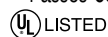
16 AWG (1,23mm²), **19 / 0.0117** (19x0,29mm), Insulation Thickness: **0.017"** (0,43mm)

XTRA•GUARD 1 Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
5172C, 5172/1C*	2	0.032	0,81	0.28	7,2
5173C, 5173/1C*	3	0.032	0,81	0.32	8,0
5174C	4	0.032	0,81	0.34	8,8
5176C	6	0.032	0,81	0.39	10,0
5178C	8	0.032	0,81	0.43	11,0
5180C	10	0.032	0,81	0.47	11,9
5180/15C	15	0.032	0,81	0.55	13,9
5180/20C	20	0.053	1,35	0.65	16,6
5180/25C	25	0.053	1,35	0.71	18,0

*Conductors color coded per international standards: brown, blue, green/yellow

SPECIFICATIONS

- UL Type CM, AWM Style 2464
- CSA CMG FT4
- Passes UL VW-1 Flame Test
- Passes CSA FT4 Flame Test



Passes
UL VW-1 Flame Test
Underwriters Laboratories Inc.



AVAILABILITY

- In Stock: Gray 100 ft (30,5m), 500 ft (152m) and 1000 ft (305m) put-ups
- Made-To-Order: Black, 1000 ft (305m) minimum

FIT® TUBING RECOMMENDATION

FIT®-221 — General Purpose, Irradiated Polyolefin (See Page 114 for Product Specifications)

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XTRA·GUARD® Flexible Cables

HIGH-FLEX CONTROL CABLE

CONTINUOUS FLEXING, OIL RESISTANT, MULTICONDUCTOR, UNSHIELDED

UL AWM STYLE 2587
CSA AWM I A/B II A/B FT1
600 VOLT

CHOOSE XTRA·GUARD HIGH-FLEX CONTROL CABLES FOR:

- Extra Flexibility and Durability for Continuous Motion
- Extended Flex Life, 13.8 Million Cycles
- Outstanding Oil and Chemical Resistance
- Jacket Meets VDE 0472, Section 803 Oil Test
- UL Recognized and CSA Certified, CE Marked

XTRA·GUARD HIGH-FLEX CONTROL CABLE APPLICATIONS:

- Applications Requiring Continuous Flexibility
- Robotics
- Installation in Cable Track
- Data Processing Equipment
- Assembly Lines
- Automation Equipment
- Material Handling Equipment

CHARACTERISTICS

OPERATING TEMPERATURE:

- -5°C to 90°C

VOLTAGE RATING:

- 600 Volt

COLOR DESCRIPTION:

- Color Code: Numerically Numbered Red Conductors with One Yellow/Green Conductor on Outside Layer
- Jacket Color: Black

PRODUCT DESCRIPTION:

- Conductor: Super Finely Stranded Bare Copper
- Insulation: Lubricated PVC
- Fillers: Non-Wicking, Solid PVC Rod
- Wrap: Non-Wicking Fabric
- Jacket: Oil Resistant PVC

SPECIFICATIONS

- Bend Radius: 8X Cable Diameter
- UL AWM Style 2587
- CSA AWM I A/B II A/B FT1
- Jacket Meets VDE 0472, Section 803 Oil Test
- Passes MIL-C-13777G Flexlife Test

 **Recognized Component**
Underwriters Laboratories Inc.

 **Certified**
Canadian Standards Association



AVAILABILITY

- In Stock: 100 ft (30,5m), 500 ft (152m) and 1000 ft (305m) put-ups

FIT® TUBING RECOMMENDATION

FIT FLEX – Highly Flexible, Irradiated Silicone Rubber
(See Page 134 for Product Specifications)

FIT-650 – Chemical and Temperature Resistant Irradiated Viton®
(See Page 132 for Product Specifications)

Viton® is a registered trademark of DuPont Dow Elastomers



20 AWG (0,5mm²), **65 / 38** (65/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
85003	3	0.035	0,89	0.266	6,8
85004	4	0.035	0,89	0.287	7,3
85005	5	0.035	0,89	0.319	8,1
85007	7	0.040	1,00	0.368	9,3
85012	12	0.045	1,10	0.454	11,5
85018	18	0.050	1,30	0.535	13,6
85025	25	0.065	1,70	0.666	16,9
85034	34	0.065	1,70	0.733	18,6

18 AWG (1,0mm²), **105 / 38** (105/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
85803	3	0.035	0,89	0.286	7,3
85804	4	0.035	0,89	0.310	7,9
85805	5	0.035	0,89	0.337	8,6
85807	7	0.045	1,10	0.407	10,3
85812	12	0.050	1,30	0.502	12,8
85815	15	0.050	1,30	0.553	14,0
65818	18	0.065	1,70	0.583	14,8
65825	25	0.065	1,70	0.722	18,3
65834	34	0.065	1,70	0.799	20,3

16 AWG (1,5mm²), **168 / 38** (168/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
85603	3	0.035	0,89	0.325	8,3
85604	4	0.035	0,89	0.354	9,0
85605	5	0.035	0,89	0.387	9,8
85607	7	0.040	1,00	0.456	11,6
85612	12	0.045	1,10	0.567	14,4
85618	18	0.045	1,10	0.662	16,8
85625	25	0.065	1,70	0.833	21,1
85634	34	0.065	1,70	0.924	23,5

14 AWG (2,5mm²), **266 / 38** (266/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
85404	4	0.050	1,30	0.425	10,8
85407	7	0.070	1,80	0.571	14,5

12 AWG (4,0mm²), **413 / 38** (413/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
85204	4	0.070	1,80	0.521	13,2
85207	7	0.100	2,50	0.699	17,8

10 AWG (6,0mm²), **658 / 38** (658/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	mm	Nominal Diameter Inches	mm
85104	4	0.070	1,80	0.581	14,8
85107	7	0.100	2,50	0.789	20,0



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600 VOLT

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CONTINUOUS FLEXING, OIL RESISTANT, MULTICONDUCTOR, SHIELDED

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- Extra Flexibility and Durability for Continuous Motion
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- Jacket Meets VDE 0472, Section 803 Oil Test
- UL Recognized and CSA Certified, CE Marked

XTRA·GUARD HIGH-FLEX CONTROL CABLE APPLICATIONS:

- Applications Requiring Continuous Flexing
- Robotics
- Installation in Cable Track
- Assembly Lines
- Automation Equipment
- Material Handling Equipment

CHARACTERISTICS

OPERATING TEMPERATURE:

- -5°C to 90°C

VOLTAGE RATING:

- 600 Volt

COLOR DESCRIPTION:

- Color Code: Numerically Numbered Red Conductors with One Yellow/Green Conductor on Outside Layer
- Jacket Color: Black

PRODUCT DESCRIPTION:

- Conductor: Super Finely Stranded Bare Copper
- Insulation: Lubricated PVC
- Fillers: Non-Wicking, Solid PVC Rod
- Wrap: Non-Wicking Fabric
- Inner Jacket: PVC
- Shield: Tinned Copper Braid (85% Coverage)
- Outer Jacket: Oil Resistant PVC

SPECIFICATIONS

- Bend Radius: 10X Cable Diameter
- UL AWM Style 2587
- CSA AWM I A/B II A/B FT1
- Jacket Meets VDE 0472, Section 803 Oil Test
- Passes MIL-C-13777G Flexlife Test

 **Recognized Component**
Underwriters Laboratories Inc.  **Certified**
Canadian Standards Association 

AVAILABILITY

- In Stock: 100 ft (30.5m), 500 ft (152m) and 1000 ft (305m) put-ups

FIT® TUBING RECOMMENDATION

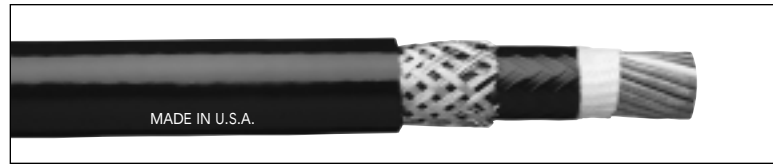
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20 AWG (0,5mm²), **65 / 38** (65/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
85003CY	3	0.035	0,89	0.353	9,0
85004CY	4	0.035	0,89	0.374	9,5
85005CY	5	0.040	1,00	0.416	10,6
85007CY	7	0.040	1,00	0.471	12,0
85010CY	10	0.040	1,00	0.551	14,0
85012CY	12	0.050	1,30	0.567	14,4
85018CY	18	0.060	1,50	0.658	16,7
85025CY	25	0.070	1,80	0.791	20,1

18 AWG (1,0mm²), **105 / 38** (105/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
85803CY	3	0.035	0,89	0.373	9,5
85804CY	4	0.040	1,00	0.407	10,3
85805CY	5	0.040	1,00	0.444	11,3
85807CY	7	0.050	1,30	0.520	13,2
85812CY	12	0.060	1,50	0.625	15,9
85818CY	18	0.060	1,50	0.708	18,0
85825CY	25	0.080	2,00	0.867	22,0

16 AWG (1,5mm²), **168 / 38** (168/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
85603CY	3	0.035	0,89	0.422	10,7
85604CY	4	0.040	1,00	0.461	11,7
85605CY	5	0.040	1,00	0.500	12,7
85607CY	7	0.060	1,50	0.599	15,2
85612CY	12	0.060	1,50	0.702	17,8
85618CY	18	0.060	1,50	0.797	20,2
85625CY	25	0.065	1,70	0.962	24,4

14 AWG (2,5mm²), **266 / 38** (266/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
85404CY	4	0.050	1,30	0.538	13,7
85407CY	7	0.065	1,70	0.676	17,2

12 AWG (4,0mm²), **413 / 38** (413/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
85204CY	4	0.075	1,90	0.646	16,4
85207CY	7	0.100	2,50	0.814	20,7

10 AWG (6,0mm²), **658 / 38** (658/0,10mm), Insulation Thickness: **0.022"** (0,56mm)

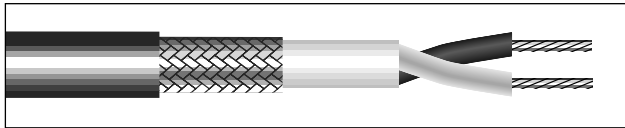
Alpha Part No.	No. of Cond.	Jacket Thickness Inches	Jacket Thickness mm	Nominal Diameter Inches	Nominal Diameter mm
85104CY	4	0.070	1,80	0.706	17,9
85107CY	7	0.100	2,50	0.934	23,7



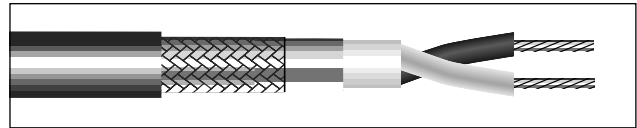
LOCAL AREA NETWORK

TWINAXIAL CABLES

PLENUM AND
NON-PLENUM



Alpha Part No.	Type	Ohms	Rating
9108	Twinax	78	Plenum
9815C	Twinax	78	Non-Plenum
9109	Twinax	100	Plenum



Alpha Part No.	Type	Ohms	Rating
9814C	Twinax	78	Non-Plenum

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PRODUCT DESCRIPTION

Alpha Part No.	Description	Conductor		Core Dielectric Material* Diameter (mm)	Shield & Material* Ohms / 1000' (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance @ 1KHz pF / FT (pF / m)	Nominal Attenuation db / 100' (db / 100m) @ MHz
		No. of Cond.	AWG Stranding Material* DCR Ohms / 1000' (/ Km)						
9108 Type CL2P – 150V / 125°C CMP FT6	Twinax Ohms: 78 Plenum	2 Cond.	20 7/28 TC 10.9 (35,8)	Cond. Insul.: FEP 0.075 (1,9)	93% TC Braid 4.1 (13,5)	Blue FEP 0.202 (5,1)	69	18.5 (60,7)	0.6 (1,9) @ 1.00 2.2 (7,2) @ 10.0 5.0 (16,4) @ 50.0 7.7 (25,3) @ 100.0 11.0 (36,7) @ 200.0 16.2 (52,5) @ 400.0
9815C Type CM – 300V / 75°C UL AWM 2582 – 150V / 60°C CSA CMH FT1	Twinax Ohms: 78 Non-Plenum	2 Cond.	20 7/28 TC 10.8 (35,4)	Cond. Insul.: PE 0.076 (1,9)	93% TC Braid 3.7 (12,1)	Blue PVC 0.242 (6,1)	66	19.7 (64,6)	0.6 (1,9) @ 1.00 2.4 (7,8) @ 10.0 6.0 (19,6) @ 50.0 7.5 (24,6) @ 100.0 11.0 (36,0) @ 200.0 16.0 (52,4) @ 400.0
9109 Type CL2P – 150V / 125°C CSA CMP FT6	Twinax Ohms: 100 Plenum	2 Cond.	[1] 20 7/28 BC 9.8 (32,1) & [1] 20 7/28 TC 10.5 (34,4)	Cond. Insul.: FEP Teflon®* 0.072 (1,8) Core Dielec.: FEP Teflon®* 0.195 (4,9)	95% TC Braid 2.3 (7,5)	Gray FP 0.252 (6,4)	69	14 (45,9)	0.4 (1,31) @ 1.00 1.2 (3,94) @ 10.0 2.7 (8,86) @ 50.0 4.2 (13,8) @ 100.0 6.6 (21,7) @ 200.0 10.5 (33,4) @ 400.0
9814C Type CL2 – 150V / 60°C UL AWM 2582	Twinax Ohms: 78 Non-Plenum	2 Cond.	20 7/28 TC 10.8 (35,4)	Cond. Insul.: PE 0.076 (1,9)	A/P + 57% TC Braid & Drain 4.1 (13,5)	Blue PVC 0.242 (6,1)	66	19.7 (64,6)	0.6 (1,9) @ 1.00 2.4 (7,8) @ 10.0 6.0 (19,6) @ 50.0 7.5 (24,6) @ 100.0 11.0 (36,0) @ 200.0 16.0 (52,4) @ 400.0

*Refer to Materials Abbreviation Guide on Page 254

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SPECIFICATIONS



AVAILABILITY

■ See Page 275 for available put-ups



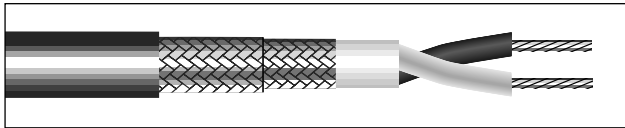
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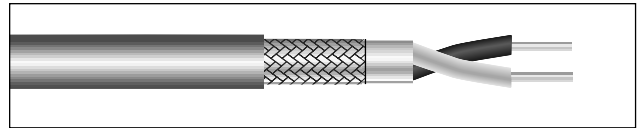
LOCAL AREA NETWORK

TWINAXIAL CABLES

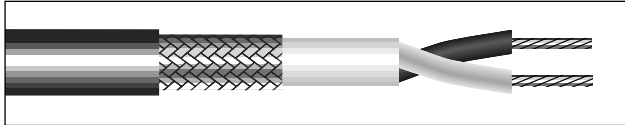
NON-PLENUM



Alpha Part No.	RG Type	Ohms	Rating
9816	Twinax 22 B/U	95	Non-Plenum



Alpha Part No.	Type	Ohms	Rating
9820C	2 Conductor	124	Non-Plenum



Alpha Part No.	Type	Ohms	Rating
9817	Twinax	100	Non-Plenum
9818C	Twinax	100	Non-Plenum

PRODUCT DESCRIPTION

Alpha Part No.	Description	Conductor		Core Dielectric Material* Diameter Inches (mm)	Shield & Material* Ohms / 1000' (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance @ 1KHz pF / FT (pF / m)	Nominal Attenuation db / 100' (db / 100m) @ MHz
		No. of Cond.	AWG Stranding Material* DCR Ohms / 1000' (/ Km)						
9816 MIL-C-17D – 60°C	RG Type: Twinax 22 B/U Ohms: 95 Non-Plenum	1 BC Cond. + 1 TC Cond.	18 7/0.0152 6.8 (22,3)	Cond. Insul.: PE 0.090 (2,3) Core Dielec.: PE 0.285 (7,2)	96% TC Double Braid 1.1 (3,6)	Black PVC-NC Type II 0.420 (10,6)	66	16 (52,5)	0.3 (1,0) @ 1.00 0.9 (2,9) @ 10.0 2.1 (6,8) @ 50.0 3.0 (9,8) @ 100.0 4.5 (14,7) @ 200.0 6.5 (21,3) @ 400.0
9817 UL AWM 2498 – 300V / 80°C	Twinax Ohms: 100 Non-Plenum	1 BC Cond. + 1 TC Cond.	20 7/28 10.8 (35,4)	Cond. Insul.: PE 0.080 (2,0) Core Dielec.: PE 0.236 (5,9)	85% TC Braid 3.0 (9,8)	Black PVC 0.330 (8,3)	66	15.5 (51,0)	0.3 (0,9) @ 1.00 1.2 (3,9) @ 10.0 2.8 (9,2) @ 50.0 4.1 (13,5) @ 100.0 6.4 (21,0) @ 200.0 10.2 (33,5) @ 400.0
9818C Type CL2 – 150V / 75°C UL AWM 2498 – 300V / 80°C	Twinax Ohms: 100 Non-Plenum	2 Cond.	[1] 20 7/28 BC 9.5 (31,1) & [1] 20 7/28 TC 10.5 (34,4)	Cond. Insul.: PE 0.080 (2,0) Core Dielec.: PE 0.236 (5,9)	95% TC Braid 2.0 (6,6)	Black PVC 0.330 (8,3)	66	15.5 (51,0)	0.3 (0,9) @ 1.00 1.2 (3,9) @ 10.0 2.8 (9,2) @ 50.0 4.1 (13,5) @ 100.0 6.4 (21,0) @ 200.0 10.2 (33,5) @ 400.0
9820C Type CM – 300V / 75°C UL AWM 2704 – 30V / 60°C CSA CMH FT1	Twinax Ohms: 124 Non-Plenum	2 Cond.	16 Solid BC 4.3 (14,1)	Cond. Insul.: FPE 0.150 (3,8)	A/P/A + 90% TC Braid 1.5 (4,9)	Black PVC 0.440 (11,1)	78	10.9 (35,8)	0.2 (0,6) @ 1.00 0.7 (2,3) @ 10.0 1.8 (5,9) @ 50.0 2.9 (9,5) @ 100.0 4.1 (13,5) @ 200.0 6.2 (20,3) @ 400.0

*Refer to Materials Abbreviation Guide on Page 254

SPECIFICATIONS



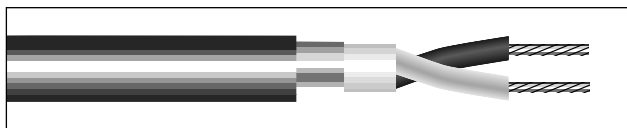
AVAILABILITY

■ See Page 275 for available put-ups

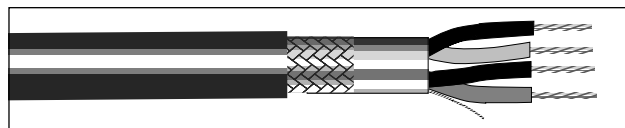
LOCAL AREA NETWORK

TWINAXIAL CABLES AND TWO PAIR DATA CABLE

NON-PLENUM



Alpha Part No.	Type	Ohms	Rating
9821	Twinax	124	Non-Plenum
9823C	Twinax	150	Non-Plenum
9823†	Twinax	150	Non-Plenum



Alpha Part No.	Type	Ohms	Rating
9819C	Two Pair	100	Non-Plenum

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PRODUCT DESCRIPTION

Alpha Part No.	Description	Conductor		Core Dielectric Material* Diameter Inches (mm)	Shield & Material* Ohms / 1000' (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance @ 1KHz pF / FT (pF / m)	Nominal Attenuation db / 100' (db / 100m) @ MHz
		No. of Cond.	AWG Stranding Material* DCR Ohms / 1000' (/ Km)						
9821 UL AWM 2092 – 300V / 60°C	Twinax Ohms: 124 Non-Plenum	2 Cond. + Drain Wire Str. TC	25 7/33 TC 31.6 (103,6)	Cond. Insul.: PE 0.083 (2,1)	A/P 100% 12.2 (40,0)	Blue PVC 0.242 (6,1)	66	12.2 (40,0)	0.6 (2,0) @ 1.00 1.7 (5,6) @ 10.0 3.6 (11,8) @ 50.0 5.0 (16,4) @ 100.0 6.9 (20,6) @ 200.0 9.6 (31,5) @ 400.0
9823C, 9823† Type CM – 300V / 75°C UL AWM 2668 – 30V / 60°C CSA CMH FT1	Twinax Ohms: 150 Non-Plenum	2 Cond. + Drain Wire Str. TC	22 19/34 TC 15.8 (51,8)	Cond. Insul.: FPE 0.050 (1,3)	A/P/A + 100% 0.134 (3,4)	Black PVC 0.350 (8,9) 6.5 (21,3)	78	8.8 (28,9)	0.4 (1,3) @ 1.00 1.2 (3,9) @ 10.0 2.7 (8,9) @ 50.0 4.3 (14,1) @ 100.0 6.2 (20,3) @ 200.0 8.8 (28,9) @ 400.0

*Refer to Materials Abbreviation Guide on Page 254

†Not CM Rated

PRODUCT DESCRIPTION

TWO PAIR DATA CABLE MULTIPAIR, OVERALL FOIL AND BRAID SHIELD

Alpha Part No.	Description	Conductor		Insulation Material* Thickness Diameter Inches (mm)	Shield & Material* Ohms / 1000' (Ohms / Km)	Jacket (Gray PVC) Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance @ 1KHz pF / FT (pF / m)	
		No. of Pairs	AWG Stranding Material* DCR Ohms / 1000' (/ Km)					•	••
9819C Type CM – 300V / 75°C UL AWM 2919 – 30V / 80°C CSA CMH FT1	Multipair, Overall Foil & Braid Shield Ohms: 100 Non-Plenum	2 + Drain Wire Str. TC	22 Solid TC 16.8 (55,1)	PE 0.02 (0,5) 0.064 (1,6)	A/P + 58% TC Braid 5.1 (16,7)	Black PVC 0.290 (7,37)	66	15 (49,2)	28 (91,8)

*Refer to Materials Abbreviation Guide on Page 254

• Capacitance between conductors

•• Capacitance between one conductor and the other conductors connected to the shield

SPECIFICATIONS



AVAILABILITY

■ See Page 275 for available put-ups



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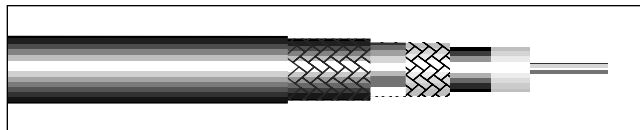
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LOCAL AREA NETWORK

ETHERNET COAXIAL CABLES

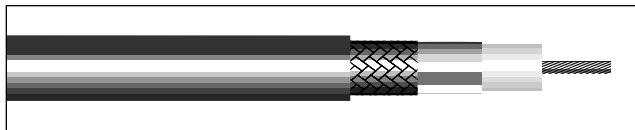
PLENUM AND NON-PLENUM

"THICK" COAXIAL CABLE IEEE 802.3 10BASE5 10 MBPS.



Alpha Part No.	Description	Ohms	Rating
9851C	Ethernet	50	Non-Plenum
9851F	Ethernet	50	Plenum

IEEE SPEC GRADE "THIN" COAXIAL CABLE IEEE 802.3 10BASE2 10 MBPS.



Alpha Part No.	Description	Ohms	Rating
9871C	Ethernet "Thinnet"	50	Non-Plenum
9871F	Ethernet "Thinnet"	50	Plenum

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PRODUCT DESCRIPTION

Alpha Part No.	Description	Conductor AWG Stranding Material* DCR Ohms / 1000' (/ Km)	Dielectric Material* Diameter Inches (mm)	Shield Material* DCR Ohms / 1000' (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance pF / FT (pF / m)	Nominal Attenuation db / 100' (db / 100m) @ MHz
9851C Type CL2 – 150V / 60°C UL AWM 1478 – 30V / 60°C CSA CMG FT4	Ethernet Ohms: 50 Non-Plenum	0.0855" (2,17 mm ²) Solid BC 1.4 (4,6)	Cellular PE 0.247 (6,27)	A/P/A + 92% TC Braid + A/P/A + 92% TC Braid 1.5 (4,9)	Yellow PVC 0.405 (10,28)	78	Maximum: 27.5 (90,2)	Maximum: 6 dB/1640 Ft @ 5 (6 dB/500 m) @ 5 10 dB/1640 Ft @ 10 (10 dB/500 m) @ 10
9851F Type CL2P – 150V / 125°C CSA CMP FT6	Ethernet Ohms: 50 Plenum	0.0855" (2,17 mm ²) Solid BC 1.4 (4,6)	Cellular FEP Teflon®* 0.247 (6,27)	A/P/A + 92% TC Braid + A/P/A + 92% TC Braid 1.5 (4,9)	Orange FEP 0.375 (9,63)	78	Maximum: 27.5 (90,2)	Maximum: 6 dB/1640 Ft @ 5 (6 dB/500 m) @ 5 10 dB/1640 Ft @ 10 (10 dB/500 m) @ 10
9871C Type CL2 CSA CMG FT4 300V / 60°C	Ethernet "Thinnet" Ohms: 50 Non-Plenum	20 19/0.0075" TC 12.0 (39,4)	PE 0.119 (3,02)	A/P/A + 95% TC Braid 3.0 (9,8)	Black PVC 0.200 (5,08)	66	30.5 (100,0)	Maximum: 6 dB/607 Ft @ 5 (6 dB/185 m) @ 5 8.5 dB/607 Ft @ 10 (8.5 dB/185 m) @ 10
9871F Type CL2P CSA CMP FT6 300V / 125°C	Ethernet "Thinnet" Ohms: 50 Plenum	20 19/0.0075" TC 12.0 (39,4)	FEP Teflon®* 0.112 (2,84)	A/P/A + 95% TC Braid 3.0 (9,8)	Gray FP 0.182 (4,62)	78	30.5 (100,0)	Maximum: 6 dB/607 Ft @ 5 (6 dB/185 m) @ 5 8.5 dB/607 Ft @ 10 (8.5 dB/185 m) @ 10

*Refer to Materials Abbreviation Guide on Page 254

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SPECIFICATIONS



AVAILABILITY

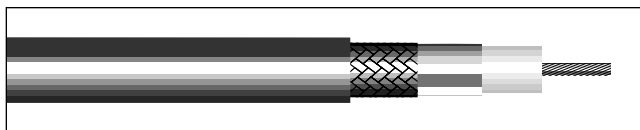
■ See Page 275 for available put-ups

LOCAL AREA NETWORK

ETHERNET COAXIAL CABLES

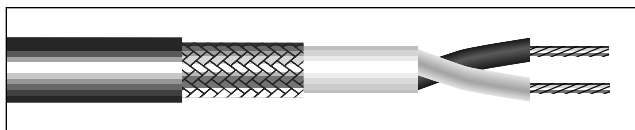
PLENUM AND
NON-PLENUM

COMMERCIAL GRADE THIN-NET COAXIAL CABLE 10 MBPS



Alpha Part No.	Description	Ohms	Rating
9861C	DEC Thinwire	50	Non-Plenum
9861F	DEC Thinwire	50	Plenum
9881C	Ethernet "Thinnet"	50	Non-Plenum

TWINAXIAL TYPE CABLE APPLE TALK LAN CABLE



Alpha Part No.	Description	Ohms	Rating
9888C	Twinax Type	78	Non-Plenum

Alpha Wire offers economical commercial-grade LAN cable alternatives. These cables are designed around the IEEE specifications, but utilize cellular (foam) dielectric to reduce size and material while still offering equivalent electrical and environmental performance. Because a cellular dielectric is used, the diameter must be reduced to achieve the same electrical performance. This has an added benefit of reducing the cost of materials. However, it does not strictly meet the diameter (4,9 mm $\pm$ 0,3 mm for PVC or 4,7 mm $\pm$ 0,3 mm for fluoropolymer jacket) required by the IEEE 802.3, 10Base specification. Therefore, we call it commercial grade.

PRODUCT DESCRIPTION

Alpha Part No.	Description	Conductor AWG Stranding Material* DCR Ohms / 1000' (/ Km)	Dielectric Material* Diameter Inches (mm)	Shield & Material* Ohms / 1000' (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance pF / FT (pF / m)	Nominal Attenuation db / 100' (db / 100m) @ MHz
9861C Type CL2 – 150V / 60°C UL AWM 1354 – 30V / 60°C CSA CMG FT4	DEC ThinWire DEC P/N: 17-01248-00 Ohms: 50 Non-Plenum	20 19/0.0076" TC 10.0 (32,8)	Cellular PE 0.101 (257)	A/P/A + 92% TC Braid 6.2 (20,3)	Gray PVC 0.180 (4,57)	78	25.4 (83,3)	Maximum: 6 dB/607 Ft @ 5 (6 dB/185 m) @ 5 8.5 dB/607 Ft @ 10 (8.5 dB/185 m) @ 10
9861F Type CL2P CSA CMP FT6 150V / 125°C	DEC ThinWire DEC P/N: 17-01246-00 Ohms: 50 Plenum	20 19/0.0076" TC 10.0 (32,8)	Cellular FEP Teflon®* 0.101 (2,57)	A/P/A + 92% TC Braid 6.2 (20,3)	Gray Tint FP 0.166 (4,22)	78	27.0 (88,6)	Maximum: 6 dB/607 Ft @ 5 (6 dB/185 m) @ 5 8.5 dB/607 Ft @ 10 (8.5 dB/185 m) @ 10
9881C Type CL2 CSA CMG FT4 300V / 60°C	Ethernet "Thinnet" Ohms: 50 Non-Plenum	20 19/32 TC 10.0 (32,8)	Cellular PE 0.102 (2,59)	A/P/A + 95% TC Braid 3.5 (11,5)	Black PVC 0.180 (4,57)	78	25.5 (83,6)	Maximum: 6 dB/607 Ft @ 5 (6 dB/185 m) @ 5 8.5 dB/607 Ft @ 10 (8.5 dB/185 m) @ 10

Alpha Part No.	Description	Conductor		Material* Thickness Diameter Inches (mm)	Insulation Shield Material* DCR Ohms / 1000' (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance pF / FT (pF / m)	Nominal Attenuation db / 100' (db / 100m) @ MHz
		No. of Cond.	AWG Stranding Material* Ohms / 1000' (/ Km)						
9888C Type CM – 300V / 60°C UL AWM 2726 – 30V / 60°C CMG FT4	Twinax Type Ohms: 78 Non-Plenum	2 Cond.	22 7/30 TC 16.4 (53,8)	Solid PE 0.058 (1,47)	85% TC Braid 5 (16,4)	Gray PVC 0.185 (4,70)	66	19.7 (64,6)	0.8 (2,6) @ 1 2.5 (8,2) @ 10 4.5 (14,8) @ 50 9.5 (31,2) @ 100 20.0 (65,6) @ 400 32.0 (105,0) @ 1000

*Refer to Materials Abbreviation Guide on Page 254

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SPECIFICATIONS



AVAILABILITY

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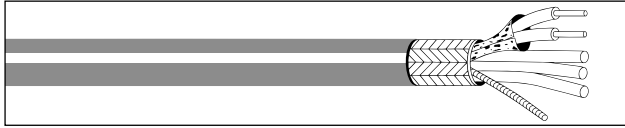
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LOCAL AREA NETWORK

ETHERNET COAXIAL CABLES

NON-PLENUM

ETHERNET TRANSCEIVER CABLES IEEE 802.3 TRANSCEIVER CABLES MINI TRANSCEIVER CABLES



Alpha Part No.	Description	Ohms	Rating
9852C	Ethernet	Data Pairs: 78	Non-Plenum
9853C	IEEE 802.3	Data Pairs: 78	Non-Plenum
9854C	Mini†	78	Non-Plenum

†5 Meters or less

COLOR CODE INFORMATION

Alpha Part Nos.: **9852C** & **9853C**
 Pair 1: Power (PVC) – Black and Red
 Pair 2: Data (FPP) – Green and Blue
 Pair 3: Data (FPP) – Yellow and Orange
 Pair 4: Data (FPP) – White and Brown

Alpha Part No. **9854C**
 Pair 1: Power (PVC) – Black and Red
 Pair 2: Data (FPP) – Green and Blue
 Pair 3: Data (FPP) – Yellow and Orange
 Pair 4: Data (FPP) – White and Gray

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PRODUCT DESCRIPTION

Alpha Part No.	Description	Conductor		Insulation Material* Thickness Diameter Inches (mm)	Shield Material* DCR Ohms / 1000* (Ohms / Km)	Jacket Material* Nom. O.D. Inches (mm)	Vel. of Prop %	Nominal Capacitance pF / FT (pF / m)	Nominal Attenuation db / 100' (db / 100m) @ MHz
		No. of Pairs	AWG Stranding Material* Ohms / 1000* (/ Km)						
9852C Type CM – 30V / 75°C UL AWM 2919 – 30V / 80°C CMG FT4	Ethernet Ohms: Data Pairs: 78 Non-Plenum	4 Pairs: 3 and 1 and a Central Drain Wire	22 7/30 TC 16.4 (53,8) 20 7/28 TC 10.2 (33,55) 22 7/28 TC	[3] PP 0.017 (0,43) 0.064 (1,63) and [1] Semi-rigid PVC 0.010 (0,25) 0.060 (1,52)	Individual A/P + Overall A/P/A + 95% TC Braid 3.0 (9,8)	Gray PVC 0.340 (8,64)	Data Pairs: 65	Data Pairs: 20 (65,6)	Maximum: @ 5-10 3.8 dB/164 Ft (3,8 dB/50 m)
9853C Type CL2 – 30V / 75°C CMG FT4	IEEE 802.3 Ohms: Data Pairs: 78 Non-Plenum	4 Pairs: and a Central Drain Wire	20 7/28 TC 10.2 (33,5) 22 7/28 TC	[3] Cellular PP 0.018 (0,46) 0.074 (1,88) and [1] Semi-rigid PVC 0.010 (0,25) 0.058 (1,47)	Individual A/P + Overall A/P/A + 95% TC Braid 3.0 (9,8)	Gray PVC 0.395 (10,03)	Data Pairs: 65	Data Pairs: 17.0 (55,8)	Maximum: @ 5-10 3.8 dB/164 Ft (3 dB/50 m)
9854C Type CL2 – 150V / 75°C UL AWM 2919 – 30V / 80°C CMG FT4	Mini† Ohms: 78 Non-Plenum	4 Pairs: 3 and 1	28 7/36 TC 65 (213) 24 7/32 TC 25 (82)	[3] Cellular PP 0.009 (0,23) 0.033 (0,84) and [1] PVC 0.010 (0,254) 0.044 (1,12)	Individual A/P + A/P/A + 90% TC Braid 3.2 (10,5)	Gray PVC 0.250 (6,35)	66	Data Pairs 19.7 (64,6)	14.0 (45,9) @ 1 32.0 (105,0) @ 5 43.0 (141,0) @ 10

*Refer to Materials Abbreviation Guide on Page 254

†5 Meters or less

SPECIFICATIONS



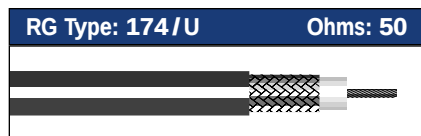
AVAILABILITY

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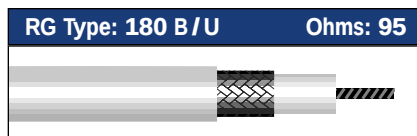
COAXIAL CABLE SYSTEMS

COAXIAL CABLES

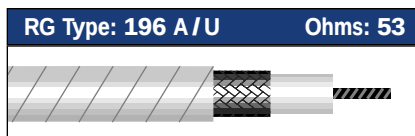
NON-PLENUM



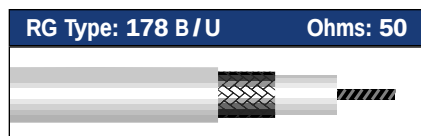
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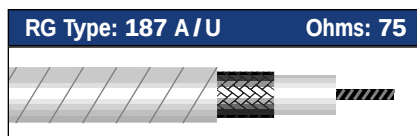
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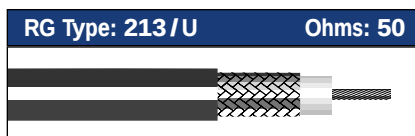
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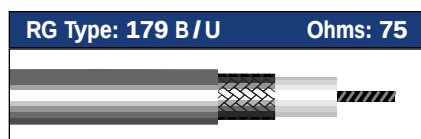
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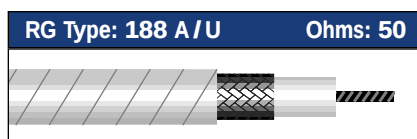
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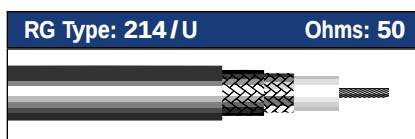
Alpha Part No.: **9213**



Alpha Part No.: **9179B**



Alpha Part No.: **9188A**



Alpha Part No.: **9214**

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PRODUCT DESCRIPTION

Alpha Part No. Type	Inner Conductor			Dielectric		Shield		Jacket		UL Style No.	VP %	Capacitance pF / ft (pF / m)	Specifica- tions
	AWG (mm ²)	Strand (mm)	Mat'l. ♦	Mat'l. ♦	Diameter In. (mm)	Mat'l. ♦	Nom. Cov., %	Mat'l. ♦	Diameter In. (mm)				
9174 174/U	26 (0.14)	7/34 (7 x 0.16)	CW	PE	0.060 (1.52)	TC Braid	88	Black V	0.100 (2.54)	1354	66	31.1 (102,0)	—
9178B 178 B/U	30 (0.06)	7/38 (7 x 0.10)	SCW	TFE	0.034 (0.86)	SC Braid	96	Natural FEP	0.071 (1.80)	—	70	28.4 (93,1)	100% Sweep Test @ 5 to 300 MHz ♦♦
9179B 179 B/U	30 (0.06)	7/38 (7 x 0.10)	SCW	TFE	0.063 (1.60)	SC Braid	93	Brown Tint FEP	0.100 (2.54)	—	70	19.6 (64,3)	100% Sweep Test @ 5 to 300 MHz ♦♦
9180B 180 B/U	30 (0.06)	7/38 (7 x 0.10)	SCW	TFE	0.102 (2.59)	SC Braid	93	Natural FEP	0.140 (3.56)	—	70	15.7 (51,5)	100% Sweep Test @ 5 to 300 MHz ♦♦
9187A 187 A/U	30 (0.06)	7/38 (7 x 0.10)	SCW	TFE	0.060 (1.52)	SC Braid	94	White TFE Tape	0.105 (2.67)	—	70	19.5 (64,0)	♦♦
9188A 188 A/U	25 (0.16)	7/0.0067 (7 x 0.17)	SCW	TFE	0.060 (1.52)	SC Braid	94	White TFE Tape	0.106 (2.69)	—	70	28.3 (92,8)	♦♦
9196A 196 A/U	30 (0.06)	7/38 (7 x 0.101)	SCW	TFE	0.034 (0.86)	SC Braid	95	White TFE Tape	0.076 (1.93)	—	70	27.8 (91,2)	♦♦
9213 213/U	13 (1.83)	7/0.0296 (7 x 0.75)	BC	PE	0.285 (7.24)	BC Braid	96	Black NCV	0.405 (10.29)	—	66	30.8 (101,0)	MIL-C-17D Type
9214 214/U	13 (1.83)	7/0.0296 (7 x 0.75)	SC	PE	0.285 (7.24)	Double SC Braid	99	Black NCV	0.425 (10.80)	—	66	30.8 (101,0)	MIL-C-17D Type

♦Refer to Materials Abbreviation Guide on Page 283

♦♦All Polyethylene Jacketed Material is Type III A per MIL-C-17

Recognized Component
Underwriters Laboratories Inc.

ATTENUATION LEVELS

■ See Chart on Page 288

AVAILABILITY

■ See Page 287 for available put-ups