

Manhattan™ Electrical Cable



Manhattan™ Electrical Cable

Signal transmission made reliable



Alpha Wire's Manhattan brand has been a trusted and reliable source of cable for over 60 years. Whether you need something as simple as a power cord or a cable that can maintain audio-video signal integrity in a noisy environment, you'll find the breadth and depth of products to ensure an optimum solution to your application.

- Audio/video
- Computer
- Thermocouple
- Control
- Plenum
- Coaxial
- Cords/cordage
- High temperature
- Security and data
- Instrumentation

Audio/video cable

Choose the correct number of conductors, gauge, insulation, shielding, jacket material, UL/CSA/NEC approvals, and any other parameters to find the right cable for your application.

Computer cable

We offer the widest range of shielded and unshielded configurations to satisfy applications including traditional RS-232 and

RS-422 interfaces, point-of-sale equipment, and modems and multiplexers. For extended distances, we offer cables with very low capacitance.

Instrumentation cable

Maintain the integrity of analog and digital signals with our broad product portfolio of single and multiple pair shielded and unshielded products.

Control cable

We offer UL style TC in a variety of conductor counts, gauges, and shielding options, all with durable PVC/nylon insulation and PVC jackets. We also offer MIL-DTL-16878 cables with 600 V and 1000 V ratings.

Plenum cable

We offer a full range of cables for control, computer interconnections, security, alarms, and building energy management systems in a variety of plenum-rated insulations and jackets.

Coaxial cable

For a complete range of 50, 75, 93, and 100 ohm coaxial, twinaxial, and triaxial cables, we offer a wide range of insulations and jackets meeting the requirements of military specifications and regulatory agencies such as UL and CSA.

Cords/cordsets

All our cords are UL Listed and CSA Certified; we also offer a wide range of CENELEC-approved products for international use. Options include two- and three-conductor cords, shielded or unshielded, stripped and terminated cable ends, straight or retractile cords, and all common plug and receptacle configurations.

High-temperature cable

Alpha Wire's Manhattan brand of high-temperature cables are available for temperatures ranging from 150°C to 540°C. We make it easy for you select the right cable to meet the demanding high-temperature requirements for control and power applications.

Security and data

Count on Alpha Wire for a complete product family of security and data cables, optimized for security video, data, and monitoring applications.

Thermocouple cable

You can find the perfect Manhattan brand thermocouple cable based on conductor combinations JX, KX, EX, and SX, as well as insulations suited for applications up to 200°C, for quality and accurate temperature measurement.

Manhattan™ Audio/Video Cable

300 V Unshielded, Multiconductor, SR-PVC/PVC, PVC



**UL AWM 2464, 2509, 2576,
UL CM, CMG
CSA CM, CMG FT4**

Applications

- Unbalanced intercom and sound systems
- Remote circuit control
- Low-voltage circuits

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM, CMG)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC or semirigid PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

UL AWM 2509, UL CMG, PVC Insulation

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code J

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13302	2	0.174	4.42	0.025	0.64

UL AWM 2576, UL CM, PVC Insulation (150 V)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M13303	3	0.172	4.37	0.032	0.81	Black, Green, Red
M13304	4	0.185	4.70	0.032	0.81	O
M13305	5	0.200	5.08	0.032	0.81	O
M13306	6	0.215	5.46	0.032	0.81	O
M13307	7	0.215	5.46	0.032	0.81	O
M13308	8	0.230	5.84	0.032	0.81	O
M13309	9	0.246	6.25	0.032	0.81	O
M13310	10	0.264	6.71	0.032	0.81	O
M13312	12	0.272	6.91	0.032	0.81	O
M13315	15	0.310	7.87	0.040	1.02	F
M13320	20	0.342	8.69	0.040	1.02	F
M13325	25	0.380	9.65	0.040	1.02	F
M13330	30	0.401	10.19	0.040	1.02	F
M13340	40	0.445	11.30	0.040	1.02	F
M13350	50	0.498	12.65	0.045	1.14	F

UL AWM 2464, UL CM, PVC Insulation

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.013 (0.33 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M13404	4	0.219	5.56	0.032	0.81	O
M13405	5	0.238	6.05	0.032	0.81	O
M13407	7	0.257	6.53	0.032	0.81	O
M13409	9	0.303	7.70	0.035	0.89	O
M13412	12	0.336	8.53	0.035	0.89	O
M13415	15	0.374	9.50	0.040	1.02	F

UL AWM 2509, UL CMG, PVC Insulation

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code J

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13402	2	0.180	4.57	0.020	0.51



Manhattan™ Audio/Video Cable

300 V Unshielded, Multiconductor, SR-PVC, PVC



**UL AWM 2463, 2464, 2509,
2576, 2598**
UL CM, CMG
UL CL2, CL3
CSA CM, CMG FT4

Applications

- Unbalanced intercom and sound systems
- Remote circuit control
- Low-voltage circuits

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM, CMG, CL2, CL3)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC or semirigid PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

UL AWM 2509, UL CMG, PVC Insulation

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
 Insulation thickness: 0.016 (0.41 mm)
 Color Code J

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13502	2	0.198	5.03	0.020	0.51

UL AWM 2598, UL CM, PVC Insulation

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
 Insulation thickness: 0.018 (0.46 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M13503	3	0.249	6.32	0.032	0.81	O
M13504	4	0.272	6.91	0.032	0.81	O
M13505	5	0.297	7.54	0.032	0.81	O
M13507	7	0.333	8.46	0.037	0.94	O
M13509	9	0.387	9.83	0.037	0.94	O
M13512	12	0.437	11.10	0.040	1.02	F
M13515	15	0.485	12.32	0.045	1.14	F
M13519	19	0.520	13.21	0.045	1.14	F
M13525	25	0.636	16.15	0.060	1.52	F

UL AWM 2576, UL CM, PVC Insulation

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
 Color Code F

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Insulation Thickness	
		Inch	mm	Inch	mm	Inch	mm
M13572	2	0.274	6.96	0.032	0.81	0.023	0.58
M13574	4	0.378	9.60	0.045	1.14	0.030	0.76

UL AWM 2463, UL CL2 or CL3, PVC Insulation

14 AWG (2.08 mm²)

Stranding: 19/0.0147 (19 x 0.37 mm)
 Insulation thickness: 0.032 (0.81 mm)
 Color Code F

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approval
		Inch	mm	Inch	mm	
M13582	2	0.346	8.79	0.035	0.89	CL2
M13584	4	0.404	10.26	0.035	0.89	CL3

UL AWM 2463, UL CL3, PVC Insulation

12 AWG (3.29 mm²)

Stranding: 19/0.0185 (19 x 0.47 mm)
 Insulation thickness: 0.032 (0.81 mm)
 Color Code F

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13590	2	0.394	10.00	0.040	1.02



Manhattan™ Audio/Video Cable

300 V Unshielded, Multiconductor, PVC, PVC



UL AWM 2463 (600 V) VW-1

Applications

- Unbalanced intercom and sound systems
- Remote circuit control
- Low-voltage circuits

Operating Temperature

- -20°C to +80°C

Conductor Color Coding

- Chart F (page 532)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

16 AWG (1.32 mm²)

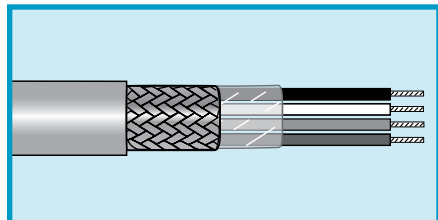
Stranding: 19/0.0117 (19 x 0.30 mm)

Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3704	4	0.392	9.96	0.047	1.19
M3705	5	0.428	10.87	0.047	1.19
M3707	7	0.465	11.81	0.047	1.19
M3709	9	0.574	14.58	0.063	1.60
M3712	12	0.637	16.17	0.063	1.60
M3715	15	0.691	17.55	0.063	1.60
M3719	19	0.742	18.85	0.063	1.60
M3725	25	0.904	22.96	0.083	2.11

Manhattan™ Audio/Video Cable

300 V Braid Shield, Multiconductor, PE, PVC



UL AWM 2092, 2093, 2094
UL CM

Applications

- Sensing, recording, monitoring devices, and telemetry

Operating Temperature

- -20°C to +75°C (CM)
- -20°C to +60°C (AWM)

Conductor Color Coding

- Chart H (page 533)

Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Tinned copper braid shield, 90% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.20 mm²)

Stranding: 10/34 (10 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M1102	2	0.177	4.50	0.020	0.51	2092
M1103	3	0.186	4.72	0.020	0.51	2093
M1104	4	0.200	5.08	0.020	0.51	2094
M1105	5	0.217	5.51	0.020	0.51	2094
M1106	6	0.234	5.94	0.020	0.51	2094

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M1112	2	0.193	4.90	0.020	0.51	2092
M1113	3	0.203	5.16	0.020	0.51	2093
M1114	4	0.220	5.59	0.020	0.51	2094
M1115	5	0.239	6.07	0.020	0.51	2094
M1116	6	0.258	6.55	0.020	0.51	2094
M1118	8	0.278	7.06	0.020	0.51	2094

20 AWG (0.52 mm²)

Stranding: 26/34 (26 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M1122	2	0.229	5.82	0.032	0.81	2092
M1123	3	0.246	6.25	0.035	0.89	2093
M1124	4	0.264	6.71	0.035	0.89	2094
M1125	5	0.285	7.24	0.035	0.89	2094
M1126	6	0.306	7.77	0.035	0.89	2094
M1128	8	0.328	8.33	0.035	0.89	2094
M1130	10	0.375	9.53	0.035	0.89	2094
M1132	12	0.386	9.80	0.035	0.89	2094
M1135	15	0.417	10.59	0.035	0.89	2094
M1140	20	0.464	11.79	0.035	0.89	2094

Manhattan™ Audio/Video Cable

300 V Braid Shield, Multiconductor, PE, PVC



**UL AWM 2092, 2093, 2094
UL CM**

Applications

- Sensing, recording, monitoring devices, and telemetry

Operating Temperature

- -20°C to +75°C (CM)
- -20°C to +60°C (AWM)

Conductor Color Coding

- Chart H (page 533)

Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Tinned copper braid shield, 90% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

18 AWG (0.82 mm²)

Stranding: 41/34 (41 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M1142	2	0.253	6.43	0.035	0.89	2092
M1143	3	0.265	6.73	0.035	0.89	2093
M1144	4	0.286	7.26	0.035	0.89	2094
M1146	6	0.333	8.46	0.035	0.89	2094

16 AWG (1.31 mm²)

Stranding: 65/34 (65 x 0.16 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M1162	2	0.277	7.04	0.035	0.89	2092
M1163	3	0.291	7.39	0.035	0.89	2093
M1164	4	0.308	7.82	0.035	0.89	2094

Manhattan™ Audio/Video Cable

300 V Foil Shield, Overall, Multiconductor, PP, HDPE
Direct Burial



**UL AWM 2092, 2093, 2094
UL CM**

Applications

- Direct burial audio and data transmission

Operating Temperature

- -20°C to +80°C

Conductor Color Coding

- See table

Materials

- Solid tinned copper conductors
- Polypropylene insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- 22 AWG (0.32 mm²) solid tinned copper drain wire
- Black high-density polyethylene jacket

Features

- Direct Burial

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk

(Minimums may apply)

20 AWG (0.51 mm²)

Stranding: : 10/30 (10 x 0.25 mm)
Insulation thickness: 0.013 (0.33 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M39047	2	0.193	4.90	0.035	0.89	O
M39048	3	0.202	5.13	0.035	0.89	O
M39049	10	0.319	8.10	0.040	1.02	O
M39050	15	0.363	9.22	0.045	1.14	F

Mutual capacitance: 22.2 pF/ft (72.8 pF/m)

Ground capacitance: 40 pF/ft (131.2 pF/m)

Except Part No. M39047:

Mutual capacitance: 24.5 pF/ft (80.3 pF/m)

Ground capacitance: 44 pF/ft (144.3 pF/m)

Manhattan™ Audio/Video Cable

350 V Individually Foil Shielded Pairs, Multipair, PP, HDPE
Direct Burial



UL AWM 2092, 2093, 2094
UL CM

Applications

- Direct burial audio and data transmission

Operating Temperature

- -20°C to +80°C

Conductor Color Coding

- Chart K (page 529)

Materials

- Stranded tinned copper conductors
- Polypropylene insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- 22 AWG (0.35 mm²) stranded tinned copper drain wire
- Black high-density polyethylene jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

20 AWG (0.51 mm²)

Stranding: 10/30 (10 x 0.25)
Insulation thickness: 0.013 (0.33 mm)

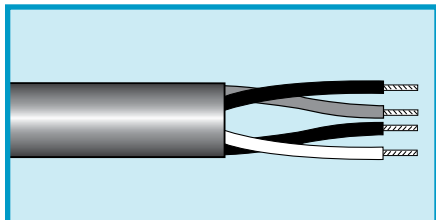
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39051	3	0.336	8.53	0.040	1.02
M39052	6	0.446	11.33	0.045	1.14

Mutual capacitance: 24.5 pF/ft (80.3 pF/m)
Ground capacitance: 44 pF/ft (144.3 pF/m)



Manhattan™ Audio/Video Cable

300 V Unshielded, Multipair, PVC, PVC



UL AWM 2464, 2576 (150 V)

UL CMG

CSA CMG FT4 (150 V)

Applications

- Speakers and sound systems

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart K (page 529)

Materials

- Solid or stranded tinned copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

AWM 2576, CMG

22 AWG (0.32 mm²)

Stranding: Solid
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13001	1	0.157	3.98	0.032	0.81
M13002	2	0.215	5.46	0.032	0.81
M13003	3	0.226	5.74	0.032	0.81
M13004	4	0.246	6.24	0.032	0.81
M13005	5	0.267	6.78	0.032	0.81
M13006	6	0.289	7.34	0.032	0.81
M13008	8	0.318	8.07	0.035	0.89
M13009	9	0.342	8.68	0.035	0.89
M13013	13	0.392	9.95	0.037	0.94
M13019	19	0.452	11.48	0.040	1.02
M13027	27	0.547	13.89	0.045	1.14

AWM 2576, CMG

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13032	2	0.231	5.86	0.032	0.81
M13033	3	0.244	6.19	0.032	0.81
M13034	4	0.265	6.73	0.032	0.81
M13036	6	0.320	8.13	0.035	0.89
M13039	9	0.375	9.52	0.037	0.94
M13042	12	0.424	10.76	0.040	1.02
M13045	15	0.460	11.68	0.040	1.02
M13049	19	0.493	12.52	0.040	1.02
M13057	27	0.598	15.18	0.045	1.14



Manhattan™ Audio/Video Cable

300 V Foil Shield, Overall, Multiconductor, PE, PVC



UL AWM 2092, 2093, 2094

UL CMG

CSA CMG

CSA FT4

Applications

- Audio and sound systems requiring small-diameter cable with 100% shield coverage

Operating Temperature

- -20°C to +75°C (CMG)
- -20°C to +60°C (AWM)

Conductor Color Coding

- AWM 2092: 1 Black, 2 Red (except Part No. M3222: Black, Natural)
- AWM 2093: 1 Black, 2 Red, 3 Natural
- AWM 2094: 1 Black, 2 Red, 3 Natural, 4 Green

Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire (see tables for size)
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M3222	2	0.159	4.04	0.020	0.51	2092
M3223	3	0.168	4.27	0.020	0.51	2093
M3224	4	0.182	4.62	0.020	0.51	2094

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M3226	2	0.171	4.34	0.020	0.51	2092
M3227	3	0.181	4.60	0.020	0.51	2093
M3228	4	0.197	5.00	0.020	0.51	2094

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M3232	2	0.187	4.75	0.020	0.51	2092
M3233	3	0.198	5.03	0.020	0.51	2093
M3234	4	0.216	5.49	0.020	0.51	2094

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M3242	2	0.205	5.21	0.020	0.51	2092
M3243	3	0.217	5.51	0.020	0.51	2093
M3244	4	0.238	6.05	0.020	0.51	2094



Manhattan™ Audio/Video Cable

300 V Foil Shield, Overall, Multiconductor, PE, PVC



UL AWM 2092, 2093, 2094

UL CMG

UL CL2 (150 V)

CSA CMG

CSA FT4

Applications

- Audio and sound systems requiring small-diameter cable with 100% shield coverage

Operating Temperature

- -20°C to +75°C (CMG)
- -20°C to +60°C (AWM)

Conductor Color Coding

- AWM 2092 and CL2: 1 Black, 2 Red
- AWM 2093: 1 Black, 2 Red, 3 Natural

Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire (see tables for size)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)
18 AWG (0.81 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL AWM
		Inch	mm	Inch	mm	
M3247	2	0.229	5.82	0.020	0.51	2092
M3248	3	0.243	6.17	0.020	0.51	2093

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.020 (0.51 mm)
16 AWG (1.32 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL Style
		Inch	mm	Inch	mm	
M3249	2	0.288	7.32	0.030	0.76	CL2

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.020 (0.51 mm)
14 AWG (2.08 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		UL Style
		Inch	mm	Inch	mm	
M3250	2	0.326	8.28	0.030	0.76	CL2

Manhattan™ Audio/Video Cable

300 V Individually Foil Shielded Pairs, Multipair, PP/PE/SR-PVC, PVC



**UL AWM 2464, 2493, 2919
(30 V)**

**UL CM
CSA CM**

Applications

- Audio and sound systems

Operating Temperature

- -20°C to +80°C (AWM 2464)
- -20°C to +75°C (CM)
- -20°C to +60°C (AWM 2919, 2493)

Conductor Color Coding

- AWM 2919: Chart K (page 529)
- AWM 2493: Chart A (page 528)
- AWM 2464 and CM: Black/Red, Green/White

Materials

- Solid or stranded tinned copper conductors
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire equal in size to conductor (unless noted)
- Polyethylene, polypropylene, or semirigid PVC insulation (see tables)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

AWM 2493, UL CM, Polypropylene Insulation

22 AWG (0.32 mm²)

Stranding: Solid
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39039	6	0.362	9.19	0.050	1.27
M39040	9	0.415	10.54	0.050	1.27
M39041	11	0.459	11.66	0.050	1.27
M39042	15	0.507	12.88	0.050	1.27

UL CM, Polypropylene Insulation

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.008 (0.20 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4473	2	0.150	3.81	0.19	0.48

AWM 2919, UL CM, Polypropylene Insulation

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13103	3	0.271	6.88	0.032	0.81
M13106	6	0.349	8.86	0.032	0.81
M13109	9	0.412	10.46	0.032	0.81
M13111	11	0.466	11.84	0.035	0.89
M13112	12	0.466	11.84	0.035	0.89
M13115	15	0.537	13.64	0.050	1.27
M13117	17	0.577	14.66	0.050	1.27
M13119	19	0.577	14.66	0.050	1.27
M13127	27	0.685	17.40	0.050	1.27
M13130	37	0.766	19.46	0.050	1.27

AWM 2464, UL CM, SR-PVC Insulation

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13142	2	0.284	7.21	0.032	0.81



Manhattan™ Audio/Video Cable

300 V Individually Foil Shielded Pairs, Multipair, PP/PE/SR-PVC, PVC



**UL AWM 2464, 2493, 2919
(30 V)
UL CM
CSA CM**

Applications

- Audio and sound systems

Operating Temperature

- -20°C to +80°C (AWM 2464)
- -20°C to +75°C (CM)
- -20°C to +60°C (AWM 2919, 2493)

Conductor Color Coding

- AWM 2919: Chart K (page 529)
- AWM 2493: Chart A (page 528)
- AWM 2464 and CM: Black/Red, Green/White

Materials

- Solid or stranded tinned copper conductors
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire equal in size to conductor (unless noted)
- Polyethylene, polypropylene, or semirigid PVC insulation (see tables)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

AWM 2919, UL CM, Polyethylene Insulation

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.013 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13143	3	0.324	8.23	0.032	0.64
M13146	6	0.448	11.38	0.043	1.09
M13149	9	0.522	13.26	0.043	1.09
M13151	11	0.579	14.71	0.050	1.27
M13152	12	0.598	15.19	0.050	1.27
M13155	15	0.650	16.51	0.050	1.27

AWM 2919, UL CM, Polyethylene Insulation

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
Drain wire: 20 AWG (0.56 mm²)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13173	3	0.380	9.65	0.032	0.81
M13176	6	0.541	13.74	0.050	1.27
M13179	9	0.632	16.05	0.050	1.27
M13182	12	0.737	18.72	0.065	1.65
M13185	15	0.817	20.75	0.065	1.65



Manhattan™ Audio/Video Cable

300 V Individually Foil Shielded Pairs, Multipair, PP, PVC



UL CMG VW-1
CSA CMG

Applications

- Communication and instrumentation systems requiring special wiring
- Audio process-control computer systems

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- 1 Black-Red, 2 Green-White, 3 White/Red-White/Black, 4 White/Yellow-White/Green

Materials

- Stranded tinned copper conductors
- Polypropylene insulation
- Aluminum/polyester foil shield, 25% overlap min
Foil facing inward
- 22 AWG (0.35 mm²) stranded tinned copper drain wire
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.015 (0.38 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M14604	4	0.365	9.27	0.030	0.76

Mutual capacitance: 23 pF/ft (75.5 pF/m)
Ground capacitance: 41 pF/ft (134.5 pF/m)

Manhattan™ Audio/Video Cable

Braid or Spiral Shield, Single Conductor, PE, PVC
Microphone Cable



Applications

- High-impedance microphones
- Hi-fi interconnection systems
- Instruments and tape recorders

Operating Temperature

- -20°C to +60°C

Materials

- Stranded tinned copper conductors*
- Polyethylene insulation

- Braided tinned copper or spiral wrapped tinned copper shield
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Part No.	Voltage	Wire Size		Stranding		Nominal Diameter		Shield	Jacket Thickness		Insulation Thickness		Capacitance	
		AWG	mm ²	AWG	mm	Inch	mm		Inch	mm	Inch	mm	pF/ft	pF/m
M3601*	300	30	0.05	7/38*	7 x 0.10	0.086	2.18	Braid	0.016	0.41	0.012	0.30	32	105.0
M3633*	1000	26	0.14	7/34*	7 x 0.16	0.101	2.57	Spiral	0.020	0.50	0.016	0.41	35	114.8
M3605	3500	24	0.20	10/34	10 x 0.16	0.146	3.71	Braid	0.030	0.76	0.020	0.50	36	118.1
M3635	1000	24	0.20	10/34	10 x 0.16	0.106	2.69	Spiral	0.020	0.50	0.016	0.41	41	134.5
M3611	4000	20	0.52	26/34	26 x 0.16	0.180	4.57	Braid	0.030	0.76	0.030	0.76	39	128.0

*M3601 and M3633 have 3 strands of tinned copper and 4 strands of tinned Copperweld.

Manhattan™ Audio/Video Cable

300 V Braid Shield, Multiconductor, PVC, PVC
Microphone Cable



UL AWM 2095
UL CMG
CSA CMG FT4

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Code

- 1 Black, 2 Red

Materials

- Solid or stranded tinned copper conductors
- PVC insulation
- Tinned copper braid shield, 88% coverage
Drain wire equivalent to conductors
- Black PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.32 mm²)

Stranding: Solid
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M14461	2	0.195	4.95	0.028	0.71

Mutual capacitance: 41 pF/ft (134.5 pF/m)
Ground capacitance: 74 pF/ft (242.8 pF/m)

22 AWG (0.35 mm²)

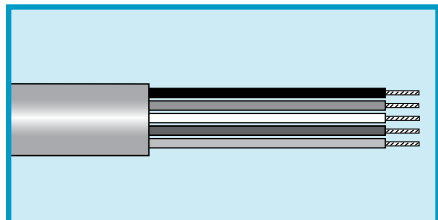
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M14462	2	0.205	5.21	0.028	0.71

Mutual capacitance: 43 pF/ft (141.3 pF/m)
Ground capacitance: 77 pF/ft (252.6 pF/m)

Manhattan™ Audio/Video Cable

300 V Unshielded, Multiconductor, PVC, PVC



UL AWM 2509, 2576

UL CL2

UL CMG

CSA CMG FT4

Applications

- Unbalanced intercom and sound systems
- Remote circuit controls
- Telephones
- Low-voltage circuits

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG and CL2)

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

UL AWM 2509, UL CMG

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code D

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33402	2	0.183	4.65	0.020	0.51
M33403	3	0.191	4.85	0.020	0.51
M33404	4	0.209	5.31	0.020	0.51
M33406	6	0.251	6.38	0.020	0.51
M33408	8	0.273	6.93	0.020	0.51
M33410	10	0.320	8.13	0.020	0.51
M33412	12	0.331	8.41	0.020	0.51
M33415	15	0.362	9.19	0.020	0.51
M33419	19	0.390	9.91	0.020	0.51

UL AWM 2509, UL CMG

18 AWG (0.81 mm²)

Stranding: 16/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code D

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M33502	2	0.208	5.28	0.025	0.64
M33503	3	0.220	5.59	0.025	0.64
M33504	4	0.241	6.12	0.025	0.64
M33505	5	0.264	6.71	0.025	0.64
M33506	6	0.288	7.32	0.025	0.64
M33507	7	0.288	7.32	0.025	0.64
M33508	8	0.313	7.95	0.025	0.64
M33510	10	0.366	9.30	0.025	0.64
M33512	12	0.378	9.60	0.025	0.64
M33515	15	0.423	10.74	0.030	0.76
M33519	19	0.465	11.81	0.035	0.89
M33525	25	0.544	13.82	0.035	0.89

Manhattan™ Audio/Video Cable

300 V Unshielded, Multiconductor, PVC, PVC



UL AWM 2509, 2576
UL CL2
UL CMG
CSA CMG FT4

Applications

- Unbalanced intercom and sound systems
- Remote circuit controls
- Telephones
- Low-voltage circuits

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG and CL2)

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

UL AWM 2509, UL CMG

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
 Insulation thickness: 0.016 (0.41 mm)
 Color Code D

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33572	2	0.232	5.89	0.025	0.64
M33573	3	0.246	6.25	0.025	0.64
M33574	4	0.273	6.93	0.025	0.64
M33576	6	0.327	8.31	0.025	0.64
M33578	8	0.356	9.04	0.025	0.64

UL AWM 2576, UL CL2

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
 Insulation thickness: 0.020 (0.51 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33582	2	0.295	7.49	0.032	0.81
M33583	3	0.313	7.95	0.032	0.81

UL AWM 2576, UL CL2

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
 Insulation thickness: 0.020 (0.51 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33590	2	0.333	8.45	0.032	0.81
M33591	3	0.354	8.99	0.032	0.81

Manhattan™ Audio/Video Cable

300 V Unshielded, Multiconductor, SR-PVC, PVC



**UL AWM 2464, 2509, 2576
UL CMG
CSA CMG FT4**

Applications

- Unbalanced intercom and sound systems
- Remote circuit controls
- Telephones
- Low-voltage circuits

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart E (page 532) for AWM 2464
- Chart D (page 531) for AWM 2576

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk

(Minimums may apply)

UL AWM 2464, UL CMG

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)
Color Code E

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M38902	2	0.155	3.94	0.032	0.81
M38903	3	0.162	4.11	0.032	0.81
M38904	4	0.173	4.39	0.032	0.81
M38906	6	0.200	5.08	0.032	0.81
M38908	8	0.213	5.41	0.032	0.81
M38910	10	0.243	6.17	0.032	0.81
M38915	15	0.269	6.83	0.032	0.81
M38920	20	0.297	7.54	0.032	0.81
M38925	25	0.331	8.41	0.032	0.81
M38930	30	0.349	8.86	0.032	0.81
M38940	40	0.389	9.88	0.032	0.81
M38950	50	0.426	10.82	0.032	0.81

UL AWM 2576, UL CMG

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Color Code D

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33302	2	0.164	4.16	0.032	0.81
M33303	3	0.175	4.45	0.032	0.81
M33304	4	0.188	4.78	0.032	0.81
M33305	5	0.203	5.16	0.032	0.81
M33306	6	0.218	5.54	0.032	0.81
M33308	8	0.233	5.92	0.032	0.81
M33310	10	0.267	6.78	0.032	0.81
M33312	12	0.275	6.99	0.032	0.81
M33315	15	0.297	7.54	0.032	0.81
M33320	20	0.329	8.36	0.032	0.81
M33325	25	0.367	9.32	0.032	0.81
M33330	30	0.388	9.86	0.032	0.81
M33340	40	0.432	10.97	0.032	0.81
M33350	50	0.481	12.22	0.035	0.89
M33360	60	0.523	13.28	0.035	0.89



Manhattan™ Audio/Video Cable

300 V Spiral Wrap Copper Shield, Multiconductor, PVC, PVC



UL AWM 2095
UL AWM 1108
(Single conductor)
UL CMG
CSA CMG FT4

Applications

- Audio and RF frequencies

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- 1 Black, 2 Red, 3 White, 4 Green, 5 Yellow, 6 Blue
- Part No. M13282: 1 Red, 2 White

Materials

- Stranded tinned copper conductors
- PVC insulation
- Spiral wrapped tinned copper shield, 90% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3261	1	0.112	2.84	0.020	0.51
M3262	2	0.177	4.50	0.020	0.51
M3263	3	0.187	4.75	0.020	0.51
M3264	4	0.206	5.23	0.020	0.51
M3266	6	0.243	6.17	0.020	0.51

20 AWG (0.50 mm²)

Stranding: 10/30 (10 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3271	1	0.119	3.02	0.020	0.51
M3272	2	0.191	4.85	0.020	0.51
M3273	3	0.202	5.13	0.020	0.51
M3274	4	0.223	5.66	0.020	0.51
M3276	6	0.264	6.71	0.020	0.51

20 AWG (0.56 mm²)

Stranding: 7/28 (10 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13272	2	0.203	5.16	0.025	0.64

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3281	1	0.129	3.28	0.020	0.51
M3282	2	0.214	5.44	0.020	0.51
M3283	3	0.226	5.74	0.020	0.51
M3284	4	0.247	6.27	0.020	0.51

Manhattan™ Audio/Video Cable

300 V Spiral Wrap Copper Shield, Multiconductor, PVC, PVC



UL AWM 2095
UL AWM 1108
(Single conductor)
UL CMG
CSA CMG FT4

Applications

- Audio and RF frequencies

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- 1 Black, 2 Red, 3 White, 4 Green, 5 Yellow, 6 Blue
- Part No. M13282: 1 Red, 2 White

Materials

- Stranded tinned copper conductors
- PVC insulation
- Spiral wrapped tinned copper shield, 90% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

18 AWG (0.89 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13282	2	0.256	6.50	0.028	0.71
M13283	3	0.270	6.86	0.028	0.71

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3287	2	0.240	6.10	0.025	0.64
M3288	3	0.254	6.45	0.025	0.64

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.023 (0.58 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13287	2	0.286	7.26	0.030	0.76

14 AWG (2.08 mm²)

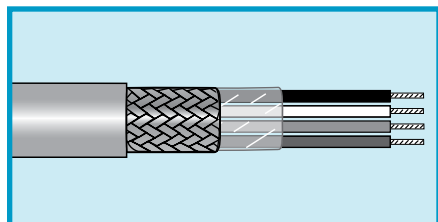
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.020 (0.51 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3289*	2	0.295	7.49	0.025	0.64
M3290*	3	0.312	7.92	0.025	0.64

*450 V.

Manhattan™ Audio/Video Cable

300 V Braid Shield, Multiconductor, PVC, PVC



UL AWM 2095, 2464
CSA CMG FT4

Applications

- Audio and sound systems experiencing high flexing and needing additional tensile strength

Operating Temperature

- -20°C to +80°C (AMW)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart D (page 531), unless otherwise noted

Materials

- Stranded tinned copper conductors
- PVC insulation
- Tinned copper braid shield, 85% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

UL 2095

22 AWG (0.035mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3202	2	0.189	4.80	0.020	0.51
M13203	3	0.199	5.05	0.020	0.51
M3204	4	0.215	5.46	0.020	0.51

UL 2095

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3206	2	0.205	5.21	0.020	0.51
M3207	3	0.216	5.49	0.020	0.51
M3208	4	0.234	5.94	0.020	0.51
M13209*	6	0.300	7.62	0.032	0.81
M13210*	12	0.396	10.06	0.040	1.02

*UL AWM 2464. Conductor color code Chart F (page 532).

UL 2095

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3212	2	0.223	5.66	0.020	0.51
M3213	3	0.235	5.97	0.020	0.51
M3214	4	0.256	6.50	0.020	0.51

UL 2095

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3216	2	0.247	6.27	0.020	0.51
M3217	3	0.261	6.63	0.020	0.51



100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33220	2	0.337	8.56	0.020	0.51
M33221	3	0.358	9.09	0.020	0.51

Manhattan™ Audio/Video Cable

300 V Foil Shield, Multiconductor, PE or SR-PVC, PVC



**UL AWM 2092, 2093, 2094,
2464, 20253**
UL CM, CMG, CL2
CSA CMG FT4

Applications

- Lightweight, low-cost small-diameter cable for audio and sound systems

Operating Temperature

- -20°C to +80°C (AWM 2464, 20253)
- -20°C to +75°C (CM, CMG)
- -20°C to +60°C (AWM 2092, 2093, 2094)

Conductor Color Coding

(Unless noted)

- 2-conductor: Black, clear
- 3-conductor: Black, red, clear
- 4-conductor: Black, red, white, green

Materials

- Polyethylene or semirigid PVC insulation (see tables)
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire (see tables for size)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Polyethylene Insulation

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approval	Color Code
		Inch	mm	Inch	mm		
M13222	2	0.166	4.22	0.025	0.64	2092, CM	Black, Clear

Mutual capacitance: 18 pF/ft (59 pF/m)
Ground capacitance: 32 pF/ft (105 pF/m)

Semi-Rigid PVC Insulation

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.51 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approval	Color Code
		Inch	mm	Inch	mm		
M39024	3	0.166	4.22	0.032	0.81	2464, CMG	O
M39025	4	0.174	4.42	0.032	0.81	2464, CMG	O
M39026	5	0.187	4.75	0.032	0.81	2464, CMG	O
M39027	6	0.201	5.11	0.032	0.81	2464, CMG	O
M39028	7	0.201	5.11	0.032	0.81	2464, CMG	O
M39029	8	0.214	5.44	0.032	0.81	2464, CMG	O
M39030	9	0.228	5.79	0.032	0.81	2464, CMG	O
M39031	10	0.247	6.27	0.032	0.81	2464, CMG	O
M39032	15	0.273	6.93	0.032	0.81	2464, CMG	F
M39033	20	0.301	7.65	0.032	0.81	2464, CMG	F
M39034	25	0.335	8.51	0.032	0.81	2464, CMG	F
M39035	30	0.369	9.37	0.040	1.02	2464, CMG	F
M39036	40	0.409	10.39	0.040	1.02	2464, CMG	F
M39037	50	0.456	11.58	0.045	1.14	2464, CMG	F

Mutual capacitance: 32 pF/ft (105 pF/m)
Ground capacitance: 58 pF/ft (190.3 pF/m)

Polyethylene Insulation

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13226	2	0.178	4.52	0.025	0.64	2092, CM
M13227	3	0.204	5.18	0.033	0.84	2093, CM

Mutual capacitance: 20 pF/ft (65.6 pF/m)
Ground capacitance: 36 pF/ft (118.1 pF/m)

Manhattan™ Audio/Video Cable

300 V Foil Shield, Multiconductor, PE or SR-PVC, PVC



**UL AWM 2092, 2093, 2094,
2464, 20253**
UL CM, CMG, CL2
CSA CMG FT4

Applications

- Lightweight, low-cost small-diameter cable for audio and sound systems

Operating Temperature

- -20°C to +80°C (AWM 2464, 20253)
- -20°C to +75°C (CM, CMG)
- -20°C to +60°C (AWM 2092, 2093, 2094)

Conductor Color Coding

(Unless noted)

- 2-conductor: Black, clear
- 3-conductor: Black, red, clear
- 4-conductor: Black, red, white, green

Materials

- Polyethylene or semirigid PVC insulation (see tables)
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire (see tables for size)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

PVC Insulation

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.013 (0.33 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13229	2	0.189	4.80	0.035	0.64	2464, CMG

Mutual capacitance: 48 pF/ft (157.4 pF/m)
Ground capacitance: 86 pF/ft (282.1 pF/m)

Color code: black, red.

Polyethylene Insulation

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13232	2	0.200	5.08	0.028	0.71	2092, CM
M13233	3	0.221	5.61	0.033	0.84	2093, CM

Mutual capacitance: 23 pF/ft (75.4 pF/m)
Ground capacitance: 41 pF/ft (134.5 pF/m)

Polyethylene Insulation

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.019 (0.48 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13242	2	0.230	5.84	0.028	0.71	2092, CM
M13243	3	0.253	6.43	0.033	0.84	2093, CM

Mutual capacitance: 24.1 pF/ft (79.1 pF/m)
Ground capacitance: 43 pF/ft (141.1 pF/m)

SR-PVC Insulation

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13244	4	0.249	6.32	0.035	0.89	2464, CMG

Mutual capacitance: 47 pF/ft (154.2 pF/m)
Ground capacitance: 85 pF/ft (278.9 pF/m)



Manhattan™ Audio/Video Cable

300 V Foil Shield, Multiconductor, PE or SR-PVC, PVC



**UL AWM 2092, 2093, 2094,
2464, 20253**
UL CM, CMG, CL2
CSA CMG FT4

Applications

- Lightweight, low-cost small-diameter cable for audio and sound systems

Operating Temperature

- -20°C to +80°C (AWM 2464, 20253)
- -20°C to +75°C (CM, CMG)
- -20°C to +60°C (AWM 2092, 2093, 2094)

Conductor Color Coding

(Unless noted)

- 2-conductor: Black, clear
- 3-conductor: Black, red, clear
- 4-conductor: Black, red, white, green

Materials

- Polyethylene or semirigid PVC insulation (see tables)
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire (see tables for size)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Polyethylene Insulation

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.032 (0.81 mm)
18 AWG (0.81 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13247	2	0.317	8.05	0.032	0.81	20253, CM, CL2
M13248	3	0.336	8.53	0.032	0.81	20253, CM, CL2

Mutual capacitance: 20.5 pF/ft (67.2 pF/m)
Ground capacitance: 37 pF/ft (121.4 pF/m)

Polyethylene Insulation

14 AWG (2.08 mm²)

Stranding: 19/0.0147 (19 x 0.37 mm)
Insulation thickness: 0.032 (0.81 mm)
16 AWG (1.31 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13249	2	0.345	8.78	0.035	0.89	20253, CM, CL2

Mutual capacitance: 22.5 pF/ft (73.8 pF/m)
Ground capacitance: 40 pF/ft (131.2 pF/m)

Polyethylene Insulation

12 AWG (3.29 mm²)

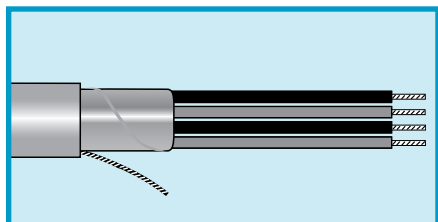
Stranding: 19/0.0185 (19 x 0.47 mm)
Insulation thickness: 0.037 (0.81 mm)
14 AWG (2.08 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Approvals
		Inch	mm	Inch	mm	
M13250	2	0.421	10.69	0.040	1.02	20253, CM, CL2

Mutual capacitance: 25 pF/ft (82 pF/m)
Ground capacitance: 44 pF/ft (144.3 pF/m)

Manhattan™ Audio/Video Cable

300 V Foil Shield, Multiconductor, PVC, PVC



UL AWM 2464
UL CMG
CSA CMG FT4

Applications

- Audio, broadcast, and sound systems
- Instrumentation

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- 1 Black, 2 Red

Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- 22 AWG (0.35 mm²) stranded tinned copper drain wire
- Slate PVC jacket

Availability

Bulk, cut to length
 (Minimums may apply)

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
 Insulation thickness: 0.013 (0.33 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M14429	2	0.199	5.05	0.032	0.81

Mutual capacitance: 54 pF/ft (177.2 pF/m)
 Ground capacitance: 97 pF/ft (318.2 pF/m)

Manhattan™ Audio/Video Cable

300 V Foil Shield, Multiconductor, PP, PVC
Miniature



UL CM
CSA CM

Applications

- Audio, broadcast, and sound systems
- Instrumentation

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- 1 Black, 2 Red

Materials

- Solid or stranded tinned copper conductors
- Polypropylene insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket (except black where noted)

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.008 (0.20 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M14328*	2	0.124	3.15	0.020	0.51

Mutual capacitance: 25 pF/ft (82 pF/m)
Ground capacitance: 45 pF/ft (147.6 pF/m)

*Black jacket.

22 AWG (0.35 mm²)

Stranding: Solid
Insulation thickness: 0.008 (0.20 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4325	2	0.122	3.10	0.018	0.46

Mutual capacitance: 28 pF/ft (91.8 pF/m)
Ground capacitance: 50 pF/ft 164 pF/m)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.008 (0.20 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4326	2	0.139	3.53	0.020	0.51
M14327*					

Mutual capacitance: 28 pF/ft (91.8 pF/m)
Ground capacitance: 50 pF/ft 164 pF/m)

*Black jacket.

Manhattan™ Audio/Video Cable

300 V Unshielded and Shielded, Multiconductor Composite, PVC/PE/PP, PVC



UL AWM 2717 (300 V)
UL AWM 2094, 2576 (150 V)
UL CM, CMG
CSA CMG, CMG

Operating Temperature

- -20°C to +80°C (AWM 2717)
- -20°C to +75°C (CM, CMG, except where noted)
- -20°C to +60°C (AWM 2094)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC insulation (polypropylene or polyethylene, as noted)
- Aluminum/polyester foil shield, 25% minimum overlap
- Stranded tinned copper drain wire (see tables for size)
- PVC jacket (see tables for colors)

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 (Minimums may apply)

22 AWG Composite Shielded and Unshielded, UL CM, Slate Jacket

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 22 AWG (0.035 mm²) drain wire (M4475)
 24 AWG (0.22 mm²) drain wire (M4451)

Part No.	Conductors	Nominal Diameter		Insulation Thickness		Jacket Thickness		Configuration		Insulation
		Inch	mm	Inch	mm	Inch	mm	Shielded	Unshielded	
M4475	3	0.190	4.83	0.013	0.33	0.032	0.81	2 Black, White	1 Brown	PVC
M4451	4	0.161	4.09	0.008	0.20	0.019	0.48	2 Red, Black	2 Green, White	PP

20 AWG Composite Shielded and Unshielded, UL CMG, Slate Jacket

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
 Insulation Thickness: 0.015 (0.38 mm)
 22 AWG (0.35 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness		Configuration		Insulation
		Inch	mm	Inch	mm	Shielded	Unshielded	
M4452	4	0.226	5.74	0.028	0.71	2 Red, Black	2 Green, White	PVC

22 AWG Composite Shielded and Unshielded, AWM 2717 and UL CM, Polypropylene Insulation, Slate Jacket

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 24 AWG (0.22 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Insulation Thickness		Jacket Thickness		Configuration	
		Inch	mm	Inch	mm	Inch	mm	Shielded	Unshielded
M14474	2	0.243	5.17	0.010	0.25	0.028	0.71	2 Red, Black	—
M14476*	2	0.220	5.59	0.008	0.20	0.030	0.81	1 Red, Black	1 Green, White

*Not CMG



Manhattan™ Audio/Video Cable

300 V Unshielded and Shielded, Multiconductor Composite,
PVC/PE/PP, PVC



UL AWM 2717 (300 V)
UL AWM 2094, 2576 (150 V)
UL CM, CMG
CSA CMG, CMG

Operating Temperature

- -20°C to +80°C (AWM 2717)
- -20°C to +75°C (CM, CMG, except where noted)
- -20°C to +60°C (AWM 2094)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC insulation (polypropylene or polyethylene, as noted)
- Aluminum/polyester foil shield, 25% minimum overlap
- Stranded tinned copper drain wire (see tables for size)
- PVC jacket (see tables for colors)

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 (Minimums may apply)

24/22 AWG Composite Shielded and Unshielded, UL CM, Slate Jacket

24 AWG (0.22 mm²)						22 AWG (0.35 mm²)				
Stranding: 7/32 (7 x 0.20 mm) 22 AWG (0.35 mm²) drain wire (M14477) 24 AWG (0.22 mm²) drain wire (M14478)						Stranding: 7/30 (7 x 0.25 mm)				
Part No.	Conductors	Nominal Diameter		Insulation Thickness		Jacket Thickness		Configuration		Insulation
		Inch	mm	Inch	mm	Inch	mm	Shielded	Unshielded	
M14477	4 (24 AWG)	0.239	6.07	0.016	0.41	0.028	0.71	4**	—	PVC
	2 (22 AWG)							—	2 Blue, White	PVC
M14478*	8 (24 AWG)	0.295	7.49	0.012	0.30	0.030	0.81	8†	—	PE
	2 (22 AWG)			0.015	0.38			—	2 White, Blue	PVC

*Cable has two quads of four shielded conductors, each quad individually shielded. One quad has a red shield; the other has a green shield. Not CMG.

**Conductor color coding: Black, green, red, yellow.

†Conductor color coding: Slate, white, blue, green, brown, red, yellow, orange.

22 AWG Shielded, UL CM, Brown Jacket

22 AWG (0.35 mm ²)									
Stranding: 7/30 (7 x 0.25 mm) Insulation Thickness 0.008 (0.20 mm) 22 AWG (0.35 mm ²) drain wire									
Part No.	Conductors	Nominal Diameter		Jacket Thickness		Configuration		Insulation	
		Inch	mm	Inch	mm	Shielded	Unshielded		
M14475	3	0.143	3.63	0.020	0.51	3*	—	PP	

*Conductor color coding: Black, red, white.

Manhattan™ Audio/Video Cable

300 V Unshielded and Shielded, Multiconductor Composite, PVC/PE, PVC



UL AWM 2717 (300 V)
UL AWM 2094, 2576 (150 V)
UL CM, CMG
CSA CMG, CMG

Operating Temperature

- -20°C to +80°C (AWM 2717)
- -20°C to +75°C (CM, CMG, except where noted)
- -20°C to +60°C (AWM 2094)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC or PE insulation
- Aluminum/polyester foil shield, 25% minimum overlap
- Stranded tinned copper drain wire (see tables for size)
- PVC jacket (see tables for colors)

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 (Minimums may apply)

22 and 18 AWG Unshielded, UL CM Only, Slate Jacket

22 AWG (0.35 mm ²)				18 AWG (0.81 mm ²)			
Stranding: 7/30 (7 x 0.25 mm) Insulation thickness: 0.010 (0.25 mm)				Stranding: 16/30 (16 x 0.25 mm) Insulation thickness: 0.018 (0.46 mm)			
Part No.	Conductors*		Nominal Diameter		Jacket Thickness		Insulation
	22 AWG	18 AWG	Inch	mm	Inch	mm	
M4406	4	2	0.255	6.48	0.032	0.81	PVC

Conductor color coding:

22 AWG: Red, green, brown, blue.

18 AWG: Black, white.

20 Foil Shielded and 18 AWG Unshielded, AWM 2094, CM, Beige Jacket

20 AWG (0.56 mm ²)				18 AWG (0.81 mm ²)			
Stranding: 7/28 (7 x 0.32 mm) Insulation thickness: 0.20 (0.50 mm) 22 AWG (0.35 mm ²) drain wire				Stranding: 16/30 (16 x 0.25 mm) Insulation thickness: 0.019 (0.48 mm)			
Part No.	Conductors		Nominal Diameter		Jacket Thickness		Insulation
	20 AWG	18 AWG	Inch	mm	Inch	mm	
M13291	2	2	0.264	6.71	0.032	0.81	PE

Conductor color coding:

22 AWG: Black, red.

18 AWG: Green, white.

Manhattan™ Security and Data Cable

300 V Unshielded, Multiconductor, PVC, PVC



UL CMR
CSA CMR

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- 1 Black, 2 Red, 3 White, 4 Green, 5 Brown, 6 Blue, 7 Orange, 8 Yellow, 9 Violet, 10 Slate

Materials

- Stranded bare copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213302	2	0.130	3.30	0.015	0.38
M213303	3	0.138	3.51	0.015	0.38
M213304	4	0.151	3.84	0.015	0.38
M213305	5	0.166	4.22	0.015	0.38
M213308	8	0.196	4.98	0.015	0.38

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213402	2	0.146	3.71	0.015	0.38
M213403	3	0.155	3.94	0.015	0.38
M213404	4	0.170	4.32	0.015	0.38

18 AWG (0.89 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213502	2	0.166	4.22	0.015	0.38
M213503	3	0.177	4.50	0.015	0.38
M213504	4	0.195	4.95	0.015	0.38

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213572	2	0.188	4.77	0.015	0.38
M213573	3	0.200	5.08	0.015	0.38
M213574	4	0.221	5.61	0.015	0.38

Manhattan™ Security and Data Cable

300 V Foil Shielded, Multiconductor, PVC, PVC



UL CMR
CSA CMR

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- 1 Black, 2 Red, 3 White, 4 Green, 5 Brown, 6 Blue, 7 Orange, 8 Yellow, 9 Violet, 10 Slate

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
Stranded tinned copper drain wire one even AWG size smaller than conductor (except 24 AWG, which is the same size as the conductors)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M239023	2	0.122	3.10	0.015	0.38
M239024	3	0.129	3.28	0.015	0.38
M239025	4	0.140	3.56	0.015	0.38

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M113226	2	0.134	3.40	0.015	0.38
M113227	3	0.142	3.61	0.015	0.38

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M113232	2	0.150	3.81	0.015	0.38
M113233	3	0.159	4.04	0.015	0.38

18 AWG (0.89 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M113242	2	0.170	4.32	0.015	0.38
M113243	3	0.181	4.60	0.015	0.38
M113244	4	0.199	5.05	0.015	0.38

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (7 x 0.30 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M113247	2	0.192	4.88	0.015	0.38
M113248	3	0.204	5.18	0.015	0.38



Manhattan™ Security and Data Cable

300 V Unshielded, Multipair, PVC, PVC



UL CMR
CSA CMR

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- Chart A1 (page 528)

Materials

- Stranded bare copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M2210	2	0.194	4.93	0.015	0.38
M2211	3	0.207	5.26	0.015	0.38
M2212	4	0.228	5.79	0.015	0.38

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M2222	2	0.220	5.59	0.015	0.38
M2223	3	0.235	5.97	0.015	0.38
M2224	4	0.260	6.60	0.015	0.38
M2226	6	0.317	8.05	0.015	0.38

18 AWG (0.89 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M2215	2	0.253	6.43	0.015	0.38
M2216	3	0.270	6.86	0.015	0.38
M2217	4	0.300	7.62	0.015	0.38

Manhattan™ Security and Data Cable

300 V, Individually Foil Shielded Pairs, Multipair, PVC, PVC



UL CMR
CSA CMR

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- Chart A1 (page 528)

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire one even AWG size smaller than conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213102	2	0.229	5.82	0.020	0.51
M213103	3	0.244	6.20	0.020	0.51
M213104	4	0.269	6.83	0.020	0.51
M213106	6	0.325	8.26	0.020	0.51

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213142	2	0.257	6.53	0.020	0.51
M213143	3	0.274	6.96	0.020	0.51
M213144	4	0.303	7.70	0.020	0.51
M213146	6	0.367	9.32	0.020	0.51

18 AWG (0.89 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213172	2	0.292	7.42	0.020	0.51
M213173	3	0.312	7.92	0.020	0.51
M213174	4	0.345	8.76	0.020	0.51
M213176	6	0.420	10.67	0.020	0.51



Manhattan™ Security and Data Cable

300 V Overall Foil Shield, Multipair, PVC, PVC



UL CMR
CSA CMR

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- Chart A1 (page 528)

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire one even AWG size smaller than conductor (except 24 AWG, which is the same size as the conductors)
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213191	2	0.178	4.52	0.015	0.38
M213192	3	0.190	4.83	0.015	0.38
M213193	4	0.209	5.31	0.015	0.38

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213222	2	0.198	5.03	0.015	0.38
M213223	3	0.211	5.36	0.015	0.38
M213224	4	0.232	5.89	0.015	0.38

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213202	2	0.224	5.69	0.015	0.38
M213203	3	0.239	6.07	0.015	0.38
M213204	4	0.264	6.71	0.015	0.38
M213206	6	0.331	8.41	0.020	0.51

18 AWG (0.89 mm²)

Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M213182	2	0.257	6.53	0.015	0.38
M213183	3	0.274	6.96	0.015	0.38
M213184	4	0.304	7.72	0.015	0.38

Manhattan™ Plenum Cable

300 V Overall Foil Shield, Multiconductor, PVC, PVC, Plenum Rated



UL CMP
CSA CMP FT6

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- 1 Black, 2 Red, 3 White, 4 Green, 5 Brown, 6 Blue, 7 Orange, 8 Yellow, 9 Violet, 10 Slate

Materials

- Stranded bare copper conductors
- Plenum-rated PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire (see tables for size)
- White plenum-rated PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M244837	2	0.122	3.10	0.015	0.38
M244838	3	0.129	3.28	0.015	0.38
M244839	4	0.140	3.56	0.015	0.38

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M244800	2	0.134	3.40	0.015	0.38
M244801	3	0.142	3.61	0.015	0.38
M244802	4	0.155	3.94	0.015	0.38
M244804	6	0.178	4.52	0.015	0.38
M244806	8	0.200	5.08	0.015	0.38
M244808	10	0.234	5.94	0.015	0.38

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M244816	2	0.150	3.81	0.015	0.38
M244817	3	0.159	4.04	0.015	0.38
M244818	4	0.174	4.42	0.015	0.38

Manhattan™ Plenum Cable

300 V Overall Foil Shield, Multiconductor, PVC, PVC, Plenum Rated



UL CMP
CSA CMP FT6

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- 1 Black, 2 Red, 3 White, 4 Green, 5 Brown, 6 Blue, 7 Orange, 8 Yellow, 9 Violet, 10 Slate

Materials

- Stranded bare copper conductors
- Plenum-rated PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire (see tables for size)
- White plenum-rated PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

18 AWG (0.89 mm²)

Stranding: 7/26 (16 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M244825	2	0.146	3.71	0.015	0.38
M244826	3	0.181	4.60	0.015	0.38
M244827	4	0.199	5.05	0.015	0.38

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.010 (0.25 mm)
18 AWG (0.89 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M244834	2	0.192	4.88	0.015	0.38
M244835	3	0.204	5.18	0.015	0.38
M244836	4	0.225	5.71	0.015	0.38

Manhattan™ Plenum Cable

300 V Overall Foil Shield, Multiconductor, FEP, PVDF, Plenum Rated



UL CMR
CSA CMP FT6

Operating Temperature

- -40°C to +125°C

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded tinned copper conductors
- FEP insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire (see tables for size)
- Red PVDF jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.006 (0.15 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M413226	2	0.118	3.00	0.015	0.38

18 AWG (0.96 mm²)

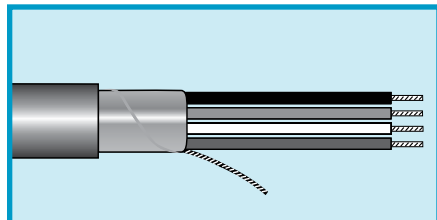
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.007 (0.18 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M413242	2	0.162	4.11	0.015	0.38



Manhattan™ Plenum Cable

300 V Overall Foil Shield, Multiconductor, FEP, FEP, Plenum Rated



UL CMP
CSA CMP FT6

Operating Temperature

- -20°C to +150°C

Conductor Color Coding

- Chart F (page 532), unless noted

Materials

- Stranded tinned copper conductors
- FEP insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
Stranded tinned copper drain wire (see tables for size)
- Slate FEP jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.006 (0.15 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M64837	2	0.096	2.44	0.010	0.25
M64838	3	0.102	2.59	0.010	0.25
M64839	4	0.111	2.82	0.010	0.25
M64840	5	0.122	3.10	0.010	0.25
M64841	6	0.133	3.38	0.010	0.25
M64842	7	0.133	3.38	0.010	0.25
M64843	8	0.168	4.26	0.012	0.30
M64844	9	0.159	4.04	0.012	0.30
M64845	10	0.172	4.37	0.012	0.30
M64846	12	0.178	4.52	0.012	0.30
M64847	15	0.193	4.90	0.012	0.30

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.006 (0.15 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M64800	2	0.108	2.74	0.010	0.25
M64801	3	0.115	2.92	0.010	0.25
M64802	4	0.126	3.20	0.010	0.25
M64803	5	0.138	3.51	0.010	0.25
M64804	6	0.151	3.84	0.010	0.25
M64805	7	0.151	3.84	0.010	0.25
M64806	8	0.168	4.27	0.012	0.30
M64807	9	0.181	4.60	0.012	0.30
M64808	10	0.196	4.98	0.012	0.30
M64809	12	0.203	5.16	0.012	0.30
M64812	15	0.221	5.61	0.012	0.30

Manhattan™ Plenum Cable

300 V Overall Foil Shield, Multiconductor, FEP, FEP, Plenum Rated



UL CMP
CSA CMP FT6

Operating Temperature

- -20°C to +150°C

Conductor Color Coding

- Chart F (page 532), unless noted

Materials

- Stranded tinned copper conductors
- FEP insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
Stranded tinned copper drain wire (see tables for size)
- Slate FEP jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

-80 to +150°C Temperature Rating, Color Code D

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.006 (0.15 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M613226	1	0.118	2.99	0.015	0.38

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.006 (0.15 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M64816	2	0.124	3.15	0.010	0.25
M64817	3	0.132	3.35	0.010	0.25
M64818	4	0.145	3.68	0.010	0.25
M64820	6	0.175	4.45	0.010	0.25
M64822	8	0.194	4.93	0.012	0.30
M64824	10	0.228	5.79	0.012	0.30

-80 to +150°C Temperature Rating, Color Code D

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.007 (0.18 mm)
20 AWG (0.60 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M613242	2	0.162	4.11	0.015	0.38

18 AWG (0.89 mm²)

Stranding: 7/26 (16 x 0.40 mm)
Insulation thickness: 0.009 (0.23 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M64825	2	0.160	4.06	0.010	0.25
M64826	3	0.166	4.22	0.010	0.25
M64827	4	0.188	4.78	0.012	0.30
M64829	6	0.227	5.77	0.012	0.30
M64831	8	0.247	6.27	0.012	0.30

16 AWG (1.43 mm²)

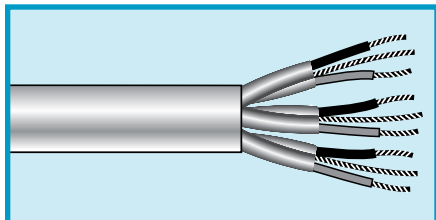
Stranding: 7/24 (7 x 0.51 mm)
Insulation thickness: 0.009 (0.23 mm)
18 AWG (0.89 mm²) drain wire

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M64834	2	0.180	4.57	0.010	0.25
M64835	3	0.196	4.98	0.012	0.30
M64836	4	0.217	5.51	0.012	0.30



Manhattan™ Plenum Cable

300 V Individually Foil Shielded Pairs, Multipair, PVC, PVC
Plenum Rated



UL CMP
CSA CMP

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- Chart A1 (page 528)
(Part number M243473: Black, white, green/yellow)

Materials

- Stranded bare copper conductors
- Plenum-rated PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire (see tables for size)
- White plenum-rated PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.007 (0.18mm)
24 AWG (0.22 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M44473	2	0.192	4.88	0.015	0.38
M43103	3	0.211	5.36	0.015	0.38
M43106	6	0.301	7.65	0.024	0.60

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M243473	2	0.219	5.56	0.015	0.38
M243103	3	0.227	5.77	0.015	0.38
M243106	6	0.316	8.03	0.020	0.51

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M243142	2	0.241	6.12	0.015	0.38
M243143	3	0.258	6.55	0.015	0.38
M243144	4	0.295	7.49	0.020	0.51

18 AWG (0.89 mm²)

Stranding: 7/26 (16 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)
20 AWG (0.56 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M243172	2	0.276	7.01	0.015	0.38
M243173	3	0.295	7.49	0.015	0.38



Manhattan™ Plenum Cable

300 V Overall Foil Shield, Multipair, FEP, PVC, Plenum Rated



UL CMP
CSA CMP FT6

Operating Temperature

- -20°C to +75°C

Conductor Color Coding

- Chart K (page 529)

Materials

- Stranded tinned copper conductors
- FEP insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire (see tables for size)
- Slate plenum-rated PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

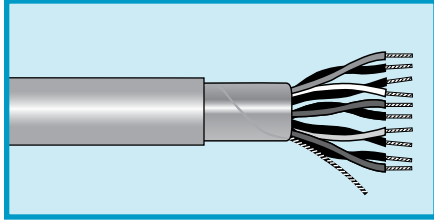
24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.006 (0.15 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M52893	1	0.155	3.94	0.015	0.38
M52894	2	0.155	3.94	0.015	0.38
M52895	3	0.164	4.17	0.015	0.38
M52896	4	0.180	4.57	0.015	0.38
M52897	5	0.197	5.00	0.015	0.38
M52898	6	0.215	5.46	0.015	0.38
M52900	9	0.252	6.40	0.015	0.38
M52902	12.5	0.282	7.16	0.015	0.38

Manhattan™ Plenum Cable

300 V Overall Foil Shield, Multipair, FEP, FEP, Plenum Rated



UL CMP
CSA CMP

Operating Temperature

- -80°C to +150°C

Conductor Color Coding

- Chart K (page 529)

Materials

- Stranded bare copper pairs
- FEP insulation
- Aluminum/polyester foil shield,
25% overlap min.
Foil facing inward
- Stranded tinned copper
drain wire sized the same as
conductors
- Red FEP jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.006 (0.15 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M613190	1	0.155	3.94	0.015	0.38
M613191	2	0.155	3.94	0.015	0.38
M613192	3	0.164	4.17	0.015	0.38
M613193	4	0.180	4.57	0.015	0.38
M613194	5	0.197	5.00	0.015	0.38

Manhattan™ Plenum Cable

300 V Individually Foil Shielded Pairs, Multipair, FEP, PVDF
Plenum Rated



UL CMP
CSA CMP

Operating Temperature

- -20°C to +150°C
- -20°C to +75°C (CMP)

Conductor Color Coding

- Chart M (page 530)

Materials

- Stranded bare copper conductors
- FEP insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire sized the same as conductors
- Slate PVDF jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)
24 AWG (0.22 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M42891	2	0.192	4.88	0.015	0.38
M42892	3	0.205	5.21	0.015	0.38
M42893	4	0.244	6.20	0.015	0.38
M42894	5	0.250	6.35	0.015	0.38
M42895	6	0.274	6.96	0.015	0.38
M42896	7	0.274	6.96	0.015	0.38
M42897	9	0.325	8.26	0.015	0.38
M42898	12	0.367	9.32	0.015	0.38
M42899	18	0.446	11.33	0.020	0.51

Manhattan™ Control Cable

600 V Braid Shield, Multiconductor, PVC, PVC



MIL-DTL-16878/1 and /17 Conductors (Types B and B/N) UL VW-1

Operating Temperature

- -55°C to +105°C

Conductor Color Coding

- Chart P (page 535) unless otherwise noted

Materials

- Stranded tinned copper conductors
- PVC or PVC/nylon insulation
- Tinned copper braid shield, 90% coverage
- White PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

MIL-DTL-16878/1 Conductors

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.13 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M1411*	1	0.073	1.85	0.010	0.25	P
M1412	2	0.116	2.95	0.012	0.30	P
M1604	4	0.132	3.35	0.013	0.33	F
M1605	5	0.144	3.66	0.014	0.36	F
M1606	6	0.157	3.99	0.015	0.38	F
M1608	8	0.175	4.45	0.017	0.43	F
M1610	10	0.201	5.11	0.018	0.46	F
M1612	12	0.210	5.33	0.020	0.51	F

*Black jacket. All others slate.

MIL-DTL-16878/17 Conductors

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm) PVC/0.003 (0.08 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1421	1	0.083	2.11	0.010	0.25
M1422	2	0.140	3.56	0.014	0.36
M1423	3	0.147	3.73	0.014	0.36

MIL-DTL-16878/17 Conductors

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
Insulation thickness: 0.010 (0.25 mm) PVC/0.003 (0.08 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1431	1	0.093	2.36	0.010	0.25
M1432	2	0.156	3.96	0.016	0.41
M1433	3	0.164	4.17	0.016	0.41



Manhattan™ Control Cable

600 V Braid Shield, Multiconductor, PVC, PVC



MIL-DTL-16878/1 and /17 Conductors (Types B and B/N) UL VW-1

Operating Temperature

- -55°C to +105°C

Conductor Color Coding

- Chart P (page 535) unless otherwise noted

Materials

- Stranded tinned copper conductors
- PVC or PVC/nylon insulation
- Tinned copper braid shield, 90% coverage
- White PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

MIL-DTL-16878/17 Conductors

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm) PVC/0.003 (0.08 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M1441	1	0.100	2.54	0.010	0.25	P
M1442	2	0.178	4.52	0.020	0.51	P
M1443	3	0.187	4.75	0.020	0.51	P
M1444	4	0.202	5.13	0.020	0.51	P
M1644	4	0.203	5.16	0.019	0.48	F
M1645	5	0.222	5.64	0.020	0.51	F
M1646	6	0.240	6.10	0.020	0.51	F
M1648	8	0.268	6.81	0.025	0.64	F
M1650*	10	0.309	7.85	0.026	0.66	F

*Black jacket. All others slate.

MIL-DTL-16878/17 Conductors

20 AWG (0.62 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm) PVC/0.003 (0.08 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1451	1	0.108	2.74	0.010	0.25
M1452	2	0.194	4.93	0.020	0.51
M1453	3	0.214	5.44	0.025	0.64
M1454	4	0.232	5.89	0.025	0.64

MIL-DTL-16878/17 Conductors

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm) PVC/0.003 (0.08 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1461	1	0.122	3.10	0.012	0.30
M1462	2	0.216	5.49	0.021	0.53
M1463	3	0.230	5.84	0.022	0.56

MIL-DTL-16878/17 Conductors

16 AWG (1.23 mm²)

Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.011 (0.28 mm) PVC/0.004 (0.10 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1471	1	0.144	3.66	0.018	0.46
M1472	2	0.240	6.10	0.023	0.58
M1473	3	0.257	6.53	0.025	0.64
M1474	4	0.280	7.11	0.025	0.64



Manhattan™ Control Cable

1000 V Braid Shield, Multiconductor, PVC, PVC



MIL-DTL-16878/2 and /18 Conductors (Types C and C/N) UL VW-1

Operating Temperature

- -55°C to +105°C

Conductor Color Coding

- Chart F (page 532)

Materials

- Stranded tinned copper conductors
- PVC or PVC/nylon insulation
- Tinned copper braid shield, 90% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

MIL-DTL-16878/2 Conductors

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1704	4	0.269	6.83	0.023	0.58
M1705	5	0.297	7.54	0.025	0.64
M1706	6	0.332	8.43	0.030	0.76
M1708	8	0.362	9.19	0.032	0.81
M1710	10	0.423	10.74	0.035	0.89
M1712	12	0.442	11.23	0.035	0.89
M1714	14	0.473	12.01	0.040	1.02
M1716	16	0.509	12.93	0.046	1.17

MIL-DTL-16878/18 Conductors

16 AWG (1.23 mm²)

Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.017 (0.43 mm) PVC/0.004 (0.10 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1764	4	0.324	8.23	0.031	0.79
M1765	5	0.357	9.07	0.033	0.84
M1766	6	0.390	9.91	0.035	0.89
M1768	8	0.431	10.95	0.040	1.02
M1772	12	0.532	13.51	0.047	1.19
M1776	16	0.598	15.19	0.053	1.35
M1779	19	0.636	16.15	0.057	1.45
M1787	27	0.768	19.51	0.067	1.70

Manhattan™ Control Cable

600 V Unshielded, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart J (page 533)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length
(Minimums may apply)

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)

Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3800	2	0.185 x 0.273	4.70 x 6.93	0.047	1.19
M3801	3	0.287	7.29	0.047	1.19
M3802	4	0.310	7.87	0.047	1.19
M3803	5	0.336	8.53	0.047	1.19
M3804	6	0.362	9.19	0.047	1.19
M3805	7	0.362	9.19	0.047	1.19
M3806	8	0.390	9.91	0.047	1.19
M3807	9	0.417	10.59	0.047	1.19
M3808	10	0.449	11.40	0.047	1.19
M3810	12	0.463	11.76	0.047	1.19
M3815	15	0.533	13.54	0.063	1.60
M3819	19	0.569	14.45	0.063	1.60
M3822	24	0.646	16.41	0.063	1.60
M3821	25	0.657	16.69	0.063	1.60
M3823	30	0.694	17.63	0.063	1.60
M3825	37	0.745	18.92	0.063	1.60

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)

Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3826	2	0.197 x 0.297	5.00 x 7.54	0.047	1.19
M3828	3	0.310	7.87	0.047	1.19
M3829	4	0.339	8.61	0.047	1.19
M3830	5	0.368	9.35	0.047	1.19
M3831	6	0.398	10.11	0.047	1.19
M3832	7	0.398	10.11	0.047	1.19
M3833	8	0.429	10.90	0.047	1.19
M3834	9	0.461	11.71	0.047	1.19
M3835	10	0.497	12.62	0.047	1.19
M3837	12	0.545	13.84	0.063	1.60
M3838	15	0.588	14.94	0.063	1.60
M3839	19	0.630	16.00	0.063	1.60
M3840	24	0.717	18.21	0.063	1.60
M3843	25	0.729	18.52	0.063	1.60
M3841	30	0.770	19.56	0.063	1.60
M3842	37	0.869	22.07	0.083	2.11



Manhattan™ Control Cable

600 V Unshielded, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart J (page 533)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length
(Minimums may apply)

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.62 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3845	2	0.212 x 0.32	5.38 x 8.31	0.047	1.19
M3847	3	0.345	8.76	0.047	1.19
M3848	4	0.375	9.53	0.047	1.19
M3849	5	0.409	10.39	0.047	1.19
M3850	6	0.444	11.28	0.047	1.19
M3851	7	0.444	11.28	0.047	1.19
M3852	8	0.479	12.17	0.047	1.19
M3853	9	0.547	13.89	0.063	1.60
M3854	10	0.589	14.96	0.063	1.60
M3856	12	0.607	15.42	0.063	1.60
M3857	15	0.657	16.69	0.063	1.60
M3858	19	0.705	17.91	0.063	1.60
M3859	24	0.805	20.45	0.063	1.60
M3862	25	0.859	21.82	0.083	2.11
M3860	30	0.907	23.04	0.083	2.11
M3861	37	0.974	24.74	0.083	2.11

12 AWG (3.30 mm²)

Stranding: 7/0.0305 (7 x 0.78 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3865	2	0.231 x 0.365	5.87 x 9.27	0.047	1.19
M3867	3	0.386	9.80	0.047	1.19
M3868	4	0.421	10.69	0.047	1.19
M3869	5	0.460	11.68	0.047	1.19
M3870	6	0.501	12.73	0.047	1.19
M3871	7	0.501	12.73	0.047	1.19
M3872	8	0.575	14.61	0.063	1.60
M3873	9	0.617	15.67	0.063	1.60
M3874	10	0.665	16.89	0.063	1.60
M3876	12	0.686	17.42	0.063	1.60
M3877	15	0.744	18.90	0.063	1.60
M3878	16	0.759	19.28	0.063	1.60
M3879	19	0.800	20.32	0.063	1.60
M3880	24	0.957	24.31	0.083	2.11
M3883	25	0.973	24.71	0.083	2.11
M3881	30	1.029	26.14	0.083	2.11
M3882	37	1.107	28.12	0.083	2.11

Manhattan™ Control Cable

600 V Unshielded, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart J (page 533)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

10 AWG (5.26 mm²)

Stranding: 7/0.0385 (7 x 0.98 mm)

Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3902	2	0.267 x 0.365	6.78 x 9.27	0.047	1.19
M3903	3	0.464	11.79	0.047	1.19
M3904	4	0.540	13.72	0.063	1.60
M3905	5	0.590	14.99	0.063	1.60
M3906	6	0.641	16.28	0.063	1.60
M3907	7	0.641	16.28	0.063	1.60
M3908	8	0.694	17.63	0.063	1.60
M3910	9	0.748	19.00	0.063	1.60
M3911	10	0.809	20.55	0.063	1.60
M3913	12	0.875	22.23	0.083	2.11
M3915	14	0.920	23.37	0.083	2.11
M3916	15	0.950	24.13	0.083	2.11



Manhattan™ Control Cable

600 V Unshielded, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded tinned copper conductors
- PVC/nylon insulation
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39056	2	0.283	7.19	0.048	1.22

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39057	2	0.301	7.65	0.048	1.22

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39058	2	0.355	9.02	0.048	1.22

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39059	2	0.393	9.98	0.048	1.22

Manhattan™ Control Cable

600 V Foil Shield, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart J (page 533)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length
(Minimums may apply)

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33800	2	0.277	7.04	0.047	1.19
M33801	3	0.291	7.39	0.047	1.19
M33802	4	0.314	7.98	0.047	1.19
M33803	5	0.340	8.64	0.047	1.19
M33805	7	0.366	9.30	0.047	1.19
M33807	9	0.421	10.69	0.047	1.19
M33810	12	0.467	11.86	0.047	1.19
M33815	15	0.537	13.64	0.063	1.60
M33819	19	0.573	14.55	0.063	1.60

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33826	2	0.301	7.65	0.047	1.19
M33828	3	0.317	8.05	0.047	1.19
M33829	4	0.343	8.71	0.047	1.19
M33830	5	0.372	9.45	0.047	1.19
M33832	7	0.402	10.21	0.047	1.19
M33834	9	0.465	11.81	0.047	1.19
M33837	12	0.549	13.94	0.063	1.60
M33838	15	0.592	15.04	0.063	1.60
M33839	19	0.634	16.10	0.063	1.60

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.62 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33845	2	0.331	8.41	0.047	1.19
M33847	3	0.349	8.86	0.047	1.19
M33848	4	0.379	9.63	0.047	1.19
M33849	5	0.413	10.49	0.047	1.19
M33851	7	0.448	11.38	0.047	1.19
M33853	9	0.551	14.00	0.063	1.60
M33856	12	0.611	15.52	0.063	1.60
M33857	15	0.661	16.79	0.063	1.60
M33858	19	0.709	18.01	0.063	1.60



Manhattan™ Control Cable

600 V Foil Shield, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart J (page 533)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

12 AWG (3.30 mm²)

Stranding: 7/0.0305 (7 x 0.78 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33865	2	0.369	9.37	0.047	1.19
M33867	3	0.390	9.91	0.047	1.19
M33868	4	0.425	10.80	0.047	1.19
M33869	5	0.464	11.79	0.047	1.19
M33870	6	0.505	12.83	0.047	1.19
M33871	7	0.505	12.83	0.047	1.19
M33873	9	0.621	15.77	0.063	1.60
M33876	12	0.690	17.53	0.063	1.60
M33877	15	0.748	19.00	0.063	1.60
M33879	19	0.804	20.42	0.063	1.60

10 AWG (5.26 mm²)

Stranding: 7/0.0385 (7 x 0.98 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M33902	2	0.441	11.20	0.047	1.19
M33903	3	0.468	11.89	0.047	1.19
M33904	4	0.544	13.82	0.063	1.60
M33905	5	0.594	15.09	0.063	1.60
M33906	6	0.645	16.38	0.063	1.60
M33907	7	0.645	16.38	0.063	1.60
M33910	9	0.752	19.10	0.063	1.60
M33912	12	0.879	22.33	0.083	2.11

Manhattan™ Control Cable

600 V Foil Shield, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39109	2	0.287	7.29	0.048	1.22

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39110	2	0.305	7.75	0.048	1.22

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39111	2	0.359	9.11	0.048	1.22

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39112	2	0.397	10.08	0.048	1.22

Manhattan™ Control Cable

600 V Foil Shield, Multiconductor, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart J1 (page 533)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire equal in size to conductors
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

Bulk, cut to length
(Minimums may apply)

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
7616/6	6	0.401	10.19	0.048	1.22

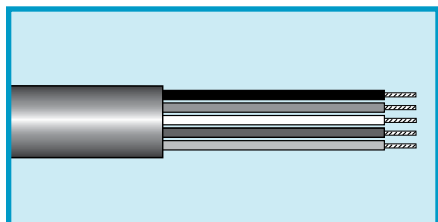
14 AWG (2.08 mm²)

Stranding: 7/0.0242 (41 x 0.62 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
7614/6	6	0.447	11.35	0.048	1.22

Manhattan™ Control Cable

300 V Unshielded, Multiconductor, PVC, PVC



UL PLTC, ITC
UL CMG
CSA CMG FT4

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Slate PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39071	2	0.203	5.16	0.038	0.97
M39072	3	0.213	5.41	0.038	0.97

20 AWG (0.61 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39073	2	0.223	5.66	0.038	0.97
M39074	3	0.234	5.94	0.038	0.97

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39075	2	0.243	6.17	0.038	0.97
M39076	3	0.256	6.50	0.038	0.97

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (7 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39077	2	0.261	6.63	0.038	0.97
M39078	3	0.275	6.99	0.038	0.97

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39079*	2	0.325	8.26	0.043	1.09
M39080*	3	0.343	8.71	0.043	1.09

*Not CMG approved.

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39081*	2	0.423	10.74	0.053	1.35

*Not CMG approved.



Manhattan™ Control Cable

300 V Foil Shield, Individual Pairs, Multipair, PVC, PVC



UL PLTC, ITC
UL CMG
CSA CMG

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- Chart BR (page 529)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Slate PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39147	2	0.320	8.13	0.043	1.09
M39148	3	0.338	8.59	0.043	1.09
M39149	4	0.368	9.35	0.043	1.09
M39150	6	0.457	11.61	0.053	1.35
M39151	9	0.529	13.44	0.053	1.35
M39152	11	0.563	14.30	0.053	1.35
M39153	15	0.582	14.78	0.053	1.35
M39154	19	0.646	16.41	0.063	1.60
M39155	27	0.763	19.38	0.063	1.60
M39156	51	1.005	25.53	0.075	1.91

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
 Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39157	2	0.410	10.41	0.053	1.35
M39158	3	0.434	11.02	0.053	1.35
M39159	4	0.473	12.01	0.053	1.35
M39160	6	0.563	14.30	0.053	1.35
M39161	9	0.677	17.20	0.063	1.60
M39162	11	0.731	18.57	0.063	1.60
M39163	15	0.820	20.83	0.063	1.60



Manhattan™ Control Cable

300 V Overall Foil Shield, Multipair, PVC, PVC



UL PLTC, ITC
UL CMG
CSA CMG

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- Chart BR (page 529)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire one even AWG size smaller than conductor
- Slate PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39130	2	0.296	7.52	0.043	1.09
M39131	3	0.312	7.92	0.043	1.09
M39132	4	0.339	8.61	0.043	1.09
M39133	6	0.420	10.67	0.053	1.35
M39134	9	0.483	12.27	0.053	1.35
M39135	11	0.520	13.21	0.053	1.35
M39136	15	0.580	14.73	0.053	1.35
M39137	19	0.642	16.31	0.063	1.60
M39138	27	0.759	19.28	0.063	1.60
M39139	51	0.995	25.27	0.075	1.91

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
 Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39140	2	0.362	9.19	0.043	1.09
M39141	3	0.403	10.24	0.053	1.35
M39142	4	0.438	11.13	0.053	1.35
M39143	6	0.518	13.16	0.053	1.35
M39144	9	0.622	15.80	0.063	1.60
M39145	11	0.671	17.04	0.063	1.60
M39146	15	0.751	19.08	0.063	1.60



Manhattan™ Control Cable

300 V Overall Foil Shield, Multiconductor, PVC, PVC



UL PLTC, ITC
UL CMG
CSA CMG FT4

Operating Temperature

- 20°C to +105°C

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester tape shield, 25% overlap min. Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Slate PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39113	2	0.207	5.26	0.038	0.97
M39114	3	0.214	5.44	0.038	0.97

20 AWG (0.61 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39115	2	0.227	5.77	0.038	0.97
M39116	3	0.238	6.05	0.038	0.97

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39117	2	0.247	6.27	0.038	0.97
M39118	3	0.260	6.60	0.038	0.97

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (7 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39119	2	0.265	6.73	0.038	0.97
M39120	3	0.279	7.09	0.038	0.97

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39121*	2	0.329	8.36	0.043	1.09
M39122*	3	0.347	8.81	0.043	1.09

*Not CMG approved.

12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.032 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39123*	2	0.427	10.85	0.053	1.35

*Not CMG approved.



Manhattan™ Instrumentation Cable

300 V Unshielded Pairs, PVC, PVC



UL PLTC, ITC
UL CL3
CSA CMG FT4

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- Black, white

Materials

- Stranded bare copper conductors
- PVC insulation
- Black PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

20 AWG (0.52 mm²)

Stranding: 7/0.0121 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9500010	1	0.215	5.46	0.038	0.97

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9508010	1	0.235	5.97	0.038	0.97

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9506010	1	0.259	6.58	0.038	0.97



Manhattan™ Instrumentation Cable

300 V Overall Foil Shield, Pair, PVC, PVC



UL PLTC, ITC
UL CL3
CSA CMG FT4

Operating Temperature

- 20°C to +105°C

Conductor Color Coding

- Black, white

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.013 (0.33 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5610B2201	1	0.192	4.88	0.038	0.97

20 AWG (0.52 mm²)

Stranding: 7/0.0121 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9520010	1	0.219	5.56	0.038	0.97

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9528010	1	0.239	6.07	0.038	0.97

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9526010	1	0.263	6.68	0.038	0.97

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.62 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9524010*	1	0.303	7.70	0.043	1.09

*Not CMG approved.

12AWG (3.29 mm²)

Stranding: 19/0.0185 (7 x 0.47 mm)
Insulation thickness: 0.022 (0.56 mm)
16 AWG (1.31 mm²) drain wire

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5610B1201*	1	0.368	9.35	0.045	1.14

*Not CMG approved.

Manhattan™ Instrumentation Cable

600 V Pairs, Overall Foil Shield, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart BW (page 529)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

20 AWG (0.52 mm²)

Stranding: 7/0.0121 (7 x 0.51 mm)
Insulation thickness: 0.013 (0.33 mm) PVC/0.003 (0.08 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5616B2001	1	0.220	5.59	0.040	1.02

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8528010	1	0.279	7.09	0.048	1.22
M8708020	2	0.396	10.06	0.050	1.27
M8708040	4	0.456	11.58	0.050	1.27
M8708060	6	0.572	14.53	0.065	1.65
M8708080	8	0.617	15.67	0.065	1.65
M8708120	12	0.737	18.72	0.065	1.65
M8708160	16	0.856	21.74	0.085	2.16
M8708240	24	1.025	26.04	0.085	2.16
M8708360	36	1.188	30.18	0.085	2.16
M8708500	50	1.356	34.44	0.085	2.16

16 AWG (1.31 mm²)

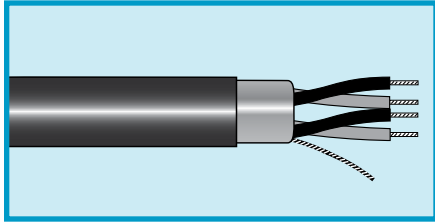
Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8526010	1	0.303	7.70	0.048	1.22
M8706020	2	0.435	11.05	0.050	1.27
M8706040	4	0.504	12.80	0.050	1.27
M8706060	6	0.631	16.03	0.065	1.65
M8706080	8	0.682	17.32	0.065	1.65
M8706120	12	0.858	21.79	0.085	2.16
M8706160	16	0.949	24.10	0.085	2.16
M8706240	24	1.141	28.98	0.085	2.16
M8706360	36	1.325	33.66	0.085	2.16
M8706500	50	1.517	38.53	0.085	2.16



Manhattan™ Instrumentation Cable

600 V Pairs, Overall Foil Shield, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart BW (page 529)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.61 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8524010	1	0.333	8.46	0.048	1.22
M8704020	2	0.484	12.29	0.050	1.27
M8704040	4	0.593	15.06	0.065	1.65
M8704060	6	0.706	17.93	0.065	1.65
M8704080	8	0.764	19.41	0.065	1.65
M8704120	12	0.961	24.41	0.085	2.16
M8704160	16	1.064	27.03	0.085	2.16
M8704240	24	1.286	32.66	0.085	2.16
M8704360	36	1.498	38.05	0.085	2.16
M8704500	50	1.778	45.16	0.115	2.92

12AWG (3.29 mm²)

Stranding: 19/0.0185 (19 x 0.47 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5616B1201	1	0.374	9.50	0.050	1.27



Manhattan™ Instrumentation Cable

600 V Pairs, Overall and Individually Foil Shielded Pairs, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Chart BW (page 529)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8748020	2	0.429	10.90	0.050	1.27
M8748040	4	0.497	12.62	0.050	1.27
M8748060	6	0.622	15.80	0.065	1.65
M8748080	8	0.672	17.07	0.065	1.65
M8748120	12	0.806	20.47	0.065	1.65
M8748160	16	0.935	23.75	0.085	2.16
M8748200	20	1.020	25.91	0.085	2.16
M8748240	24	1.123	28.52	0.085	2.16
M8748360	36	1.306	33.17	0.085	2.16
M8748500	50	1.497	38.02	0.085	2.16

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8746020	2	0.471	11.96	0.050	1.27
M8746040	4	0.577	14.66	0.065	1.65
M8746060	6	0.686	17.42	0.065	1.65
M8746080	8	0.742	18.85	0.065	1.65
M8746120	12	0.933	23.70	0.085	2.16
M8746160	16	1.034	26.26	0.085	2.16
M8746200	20	1.130	28.70	0.085	2.16
M8746240	24	1.247	31.67	0.085	2.16
M8746360	36	1.454	36.93	0.085	2.16
M8746500	50	1.730	43.94	0.115	2.92

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.61 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8744020	2	0.523	13.28	0.050	1.27
M8744040	4	0.641	16.28	0.065	1.65
M8744060	6	0.765	19.43	0.065	1.65
M8744080	8	0.869	22.07	0.085	2.16
M8744120	12	1.043	26.49	0.085	2.16
M8744160	16	1.158	29.41	0.085	2.16
M8744200	20	1.267	32.18	0.085	2.16
M8744240	24	1.401	35.59	0.085	2.16
M8744360	36	1.638	41.61	0.085	2.16
M8744500	50	1.945	49.40	0.115	2.92



Manhattan™ Instrumentation Cable

600 V Unshielded Pairs, PVC/Nylon, PVC



UL TC

Operating Temperature

- 25°C to +90°C

Conductor Color Coding

- Black, white

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5606B1801	1	0.276	7.01	0.050	1.27

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5606B1601	1	0.300	7.62	0.050	1.27

Manhattan™ Instrumentation Cable

300 V Unshielded Triads, PVC, PVC



UL PLTC, ITC
UL CL3
CSA CMG FT4

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- Black, white, red

Materials

- Stranded bare copper conductors
- PVC insulation
- Black PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

20 AWG (0.52 mm²)

Stranding: 7/0.0121 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9600010	1	0.226	5.74	0.038	0.97

18 AWG (0.81 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9608010	1	0.247	6.27	0.038	0.97

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9606010	1	0.293	7.44	0.038	0.97



Manhattan™ Instrumentation Cable

300 V Foil Shield, Triads, PVC, PVC



UL PLTC, ITC
UL CL3
CSA CMG FT4

Operating Temperature

- 20°C to +105°C

Conductor Color Coding

- Black, white, red

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.013 (0.33 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5640B2201	1	0.201	5.11	0.038	0.96

20 AWG (0.52 mm²)

Stranding: 7/0.0121 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9620010	1	0.230	5.84	0.038	0.97
5640B2004	4	0.410	10.41	0.055	1.39
5640B2012	12	0.640	16.28	0.065	1.65

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9628010	1	0.251	6.38	0.038	0.97

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9626010	1	0.287	7.29	0.043	1.09

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.61 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9624010*	1	0.319	8.10	0.043	1.09

*Not CMG approved.

Manhattan™ Instrumentation Cable

300 V Overall and Individually Foil Shielded Triads, PVC, PVC



UL PLTC
CSA CMG FT4

Operating Temperature

- -20°C to +105°C
- -20°C to +60°C (CMG)

Conductor Color Coding

- Black, white, red
- White conductors are numbered

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant

Availability

1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

20 AWG (0.51 mm²)

Stranding: 7/0.0121 (7 x 0.54 mm)
Insulation thickness: 0.013 (0.33 mm)
22 AWG (0.35 mm²) drain wire

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
5650B2004	4	0.458	11.63	0.055	1.39
5650B2008	8	0.586	14.88	0.055	1.39
5650B2012	12	0.723	18.36	0.065	1.65



Manhattan™ Instrumentation Cable

600 V Overall Foil Shield, Triads, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Black, white, red
- White conductors are numbered

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8628010	1	0.293	7.44	0.048	1.22
M8808020	2	0.450	11.43	0.050	1.27
M8808040	4	0.552	14.02	0.065	1.65
M8808080	8	0.708	17.98	0.065	1.65
M8808120	12	0.890	22.61	0.085	2.16
M8808240	24	1.186	30.12	0.085	2.16

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8626010	1	0.319	8.10	0.048	1.22
M8806020	2	0.497	12.62	0.050	1.27
M8806040	4	0.609	15.47	0.065	1.65
M8806080	8	0.785	19.94	0.065	1.65
M8806120	12	0.987	25.07	0.085	2.16
M8806240	24	1.323	33.60	0.085	2.16

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.62 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8624010	1	0.351	8.92	0.048	1.22
M8804020	2	0.585	14.86	0.065	1.65
M8804040	4	0.680	17.27	0.065	1.65
M8804080	8	0.923	23.44	0.085	2.16
M8804120	12	1.109	28.17	0.085	2.16
M8804240	24	1.495	37.97	0.085	2.16



Manhattan™ Instrumentation Cable

600 V Overall and Individually Foil Shielded Multitriads, PVC/Nylon, PVC



UL TC

Operating Temperature

- -25°C to +90°C

Conductor Color Coding

- Black, white, red
- White conductors are numbered

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min., on both individual triads and overall cable
- Foil facing inward
- Stranded tinned copper drain wire one even AWG size smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant
- UL Direct Burial

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

18 AWG (0.81 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8848020	2	0.501	12.73	0.050	1.27
M8848040	4	0.614	15.60	0.065	1.65
M8848080	8	0.832	21.13	0.085	2.16
M8848120	12	0.996	25.30	0.085	2.16
M8848240	24	1.336	33.93	0.065	2.16

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8846020	2	0.583	14.81	0.065	1.65
M8846040	4	0.677	17.20	0.065	1.65
M8846080	8	0.918	23.32	0.085	2.16
M8846120	12	1.104	28.04	0.085	2.16
M8846240	24	1.488	37.80	0.085	2.16

14 AWG (2.08 mm²)

Stranding: 7/0.0242 (7 x 0.61 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Triads	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M8844020	2	0.648	16.46	0.065	1.65
M8844040	4	0.755	19.18	0.065	1.65
M8844080	8	1.026	26.06	0.085	2.16
M8844120	12	1.238	31.45	0.085	2.16
M8844240	24	1.738	44.15	0.115	2.92



Manhattan™ Instrumentation Cable

300 V Overall Foil Shield, Composite, PVC/Nylon, PVC



UL PLTC, ITC
UL CL3
CSA CMG FT4

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- Chart BW (page 529)

Materials

- Stranded bare copper conductors
- PVC insulation
- Communications wire is 22 AWG (0.35 mm²), 7/30 (7 x 0.25 mm) stranding, bare copper with 0.016 (0.41 mm) thick insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire one even AWG smaller than conductor
- Black PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

20 AWG (0.52 mm²) Pairs

Stranding: 7/0.0121 (7 x 0.31 mm)
 Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9700020	2	0.321	8.15	0.045	1.14
M9700040	4	0.400	10.16	0.053	1.35
M9700060	6	0.451	11.46	0.053	1.35
M9700080	8	0.511	12.98	0.053	1.35
M9700120	12	0.581	14.76	0.053	1.35
M9700160	16	0.660	16.76	0.063	1.60
5610B2020*	20	0.677	17.20	0.065	1.65
M9700240	24	0.791	20.09	0.063	1.60
M9700360	36	0.925	23.50	0.073	1.85
M9700500	50	1.069	27.15	0.073	1.85

*No communication wire.

18 AWG (0.81 mm²) Pairs

Stranding: 7/0.0152 (7 x 0.39 mm)
 Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9708020	2	0.353	8.97	0.045	1.14
M9708040	4	0.431	10.95	0.053	1.35
M9708060	6	0.499	12.67	0.053	1.35
M9708080	8	0.558	14.17	0.053	1.35
M9708120	12	0.664	16.87	0.063	1.60
M9708160	16	0.735	18.67	0.063	1.60
M9708240	24	0.905	22.99	0.073	1.85
M9708360	36	1.049	26.64	0.073	1.85
M9708500	50	1.199	30.45	0.073	1.85

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
 Insulation thickness: 0.016 (0.41 mm) PVC

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9706020	2	0.409	10.39	0.053	1.35
M9706040	4	0.471	11.96	0.053	1.35
M9706060	6	0.559	14.20	0.053	1.35
M9706080	8	0.639	16.23	0.063	1.60
M9706120	12	0.747	18.97	0.063	1.60
M9706160	16	0.829	21.06	0.063	1.60
M9706240	24	1.023	25.98	0.073	1.85
M9706360	36	1.189	30.20	0.073	1.85
M9706500	50	1.382	35.10	0.083	2.11

Manhattan™ Instrumentation Cable

300 V Overall and Individually Foil Shielded Pairs, Composite
PVC/Nylon, PVC



UL PLTC, ITC
UL CL3
CSA CMG FT4

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- Chart BW (page 529)

Materials

- Stranded bare copper conductors
- PVC/nylon insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire one even AWG size smaller than conductors
- Black PVC jacket

Features

- UL Sunlight Resistant

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

20 AWG (0.52 mm²)*

Stranding: 7/0.0121 (7 x 0.31 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9740020	2	0.349	8.86	0.045	1.14
M9740040	4	0.427	10.85	0.053	1.35
M9740060	6	0.493	12.52	0.053	1.35
M9740080	8	0.539	13.69	0.053	1.35
M9740120	12	0.643	16.33	0.063	1.60
M9740160	16	0.724	18.39	0.063	1.60
5620B2020**	20	0.752	19.10	0.065	1.65
M9740240	24	0.882	22.40	0.073	1.85
M9740360	36	1.011	25.68	0.073	1.85
M9740500	50	1.169	29.69	0.073	1.85

*Communications wire is 22 AWG (0.35 mm²), 7/30 (7 x 0.25 mm) stranding, bare copper with 0.016 (0.41 mm) thick insulation.

**0.013 (0.33 mm) insulation thickness.

18 AWG (0.82 mm²)

Stranding: 7/0.0152 (7 x 0.39 mm)
Insulation thickness: 0.016 (0.41 mm) PVC

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9748020	2	0.401	10.19	0.053	1.35
M9748040	4	0.463	11.76	0.053	1.35
M9748060	6	0.547	13.89	0.053	1.35
M9748080	8	0.616	15.65	0.063	1.60
M9748120	12	0.712	18.08	0.063	1.60
M9748160	16	0.805	20.45	0.063	1.60
5620B1820	20	0.921	23.36	0.075	1.91
M9748240	24	0.983	24.97	0.073	1.85
M9748360	36	1.130	28.70	0.073	1.85
M9748500	50	1.349	34.26	0.083	2.11

*Communications wire is 22 AWG (0.35 mm²), 7/30 (7 x 0.25 mm) stranding, bare copper with 0.016 (0.41 mm) thick insulation.

16 AWG (1.31 mm²)

Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC

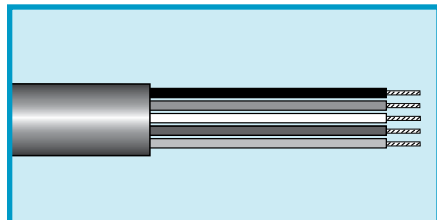
Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M9746020	2	0.441	11.20	0.053	1.35
M9746040	4	0.512	13.00	0.053	1.35
M9746060	6	0.630	16.00	0.063	1.60
M9746080	8	0.690	17.53	0.063	1.60
M9746120	12	0.819	20.80	0.063	1.60
M9746160	16	0.929	23.60	0.073	1.85
M9746240	24	1.123	28.52	0.073	1.85
M9746360	36	1.328	33.73	0.083	2.11
M9746500	50	1.521	38.63	0.083	2.11

*Communications wire is 22 AWG (0.35 mm²), 7/30 (7 x 0.25 mm) stranding, bare copper with 0.016 (0.41 mm) thick insulation.



Manhattan™ Computer Cable

300 V Unshielded, Multiconductor, PVC, PVC



UL AWM 2464

UL CL2

CSA AWM I/II A/B FT4

Applications

- Control and signal wiring
- Computers
- Instrumentation

Operating Temperature

- -20°C to +105°C (CSA)
- -20°C to +90°C (CL2)
- -20°C to +80°C (AWM)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

(Minimums may apply)

20 AWG (0.50 mm²)

Stranding: 10/30 (10 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
882002	2	0.202	5.13	0.032	0.81	R
882003	3	0.213	5.41	0.032	0.81	R
882004	4	0.231	5.87	0.032	0.81	R
882005	5	0.251	6.38	0.032	0.81	R
882006	6	0.272	6.91	0.032	0.81	R
882007	7	0.272	6.91	0.032	0.81	R
882008	8	0.293	7.44	0.032	0.81	R
882010	10	0.318	8.08	0.032	0.81	R
882012	12	0.338	8.59	0.032	0.81	R
882015	15	0.389	9.88	0.032	0.81	F
882020	20	0.430	10.92	0.032	0.81	R
882025	25	0.471	11.96	0.032	0.81	R

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
881802	2	0.222	5.64	0.032	0.81	R
881803	3	0.234	5.94	0.032	0.81	F
881804	4	0.255	6.48	0.032	0.81	R
881805	5	0.278	7.06	0.032	0.81	R
881806	6	0.289	7.34	0.032	0.81	R
881807	7	0.302	7.67	0.032	0.81	R
881808	8	0.341	8.66	0.032	0.81	R
881809	9	0.379	9.63	0.032	0.81	R
881812	12	0.408	10.36	0.032	0.81	F
881815	15	0.465	11.81	0.032	0.81	F
881820	20	0.511	12.98	0.032	0.81	R
881825	25	0.600	15.24	0.032	0.81	F

Manhattan™ Computer Cable

300 V Unshielded, Multiconductor, PVC, PVC



UL AWM 2464
UL CL2
CSA AWM I/II A/B FT4

Applications

- Control and signal wiring
- Computers
- Instrumentation

Operating Temperature

- -20°C to +105°C (CSA)
- -20°C to +90°C (CL2)
- -20°C to +80°C (AWM)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 (Minimums may apply)

16 AWG (1.32 mm²)

Stranding: 26/30 (26 x 0.25 mm)
 Insulation thickness: 0.032 (0.81 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
881602	2	0.312	7.92	0.032	0.81	F
881603	3	0.329	8.36	0.032	0.81	F
881604	4	0.375	9.53	0.045	1.14	F
881605	5	0.405	10.29	0.045	1.14	F
881606	6	0.410	10.41	0.045	1.14	R
881607	7	0.455	11.56	0.045	1.14	F
881610	10	0.578	14.68	0.045	1.14	R

14 AWG (2.08 mm²)

Stranding: 41/30 (65 x 0.25 mm)
 Insulation thickness: 0.031 (0.78 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
881403	3	0.378	9.60	0.035	0.89	F
881404	4	0.434	11.02	0.045	1.14	F
881405	5	0.485	12.32	0.060	1.52	F

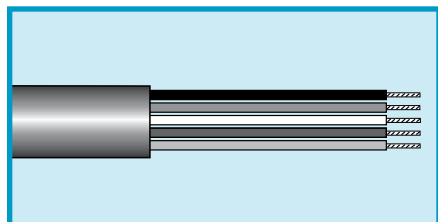
12 AWG (3.29 mm²)

Stranding: 65/30 (65 x 0.25 mm)
 Insulation thickness: 0.031 (0.78 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
881202	2	0.396	10.06	0.032	0.81	F
881203	3	0.423	10.74	0.032	0.81	F

Manhattan™ Computer Cable

300 V Unshielded, Multiconductor, SR-PVC, PVC



UL AWM 2464

UL CL2

CSA AWM I/II A/B FT4

Applications

- Control and signal wiring
- Computers
- Instrumentation

Operating Temperature

- -20°C to +105°C (CSA)
- -20°C to +90°C (CL2)
- -20°C to +80°C (AWM)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
882402	2	0.152	3.86	0.032	0.81	E
882403	3	0.159	4.04	0.032	0.81	E
882404	4	0.170	4.32	0.032	0.81	E
882406	6	0.197	5.00	0.032	0.81	E

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
882202	2	0.164	4.17	0.032	0.81	R
882203	3	0.172	4.37	0.032	0.81	R
882204	4	0.185	4.70	0.032	0.81	R
882205	5	0.200	5.08	0.032	0.81	R
882206	6	0.215	5.46	0.032	0.81	R
882207	7	0.215	5.46	0.032	0.81	R
882208	8	0.230	5.84	0.032	0.81	R
882209	9	0.246	6.25	0.032	0.81	R
882210	10	0.264	6.71	0.032	0.81	R
882212	12	0.272	6.91	0.032	0.81	R
882215	15	0.294	7.47	0.032	0.81	F
882220	20	0.326	8.28	0.032	0.81	F
882225	25	0.364	9.25	0.032	0.81	F
882230	30	0.385	9.78	0.032	0.81	F
882240	40	0.429	10.90	0.032	0.81	F
882250	50	0.478	12.14	0.035	0.89	F
882260	60	0.520	13.21	0.035	0.89	F

Manhattan™ Computer Cable

300 V Unshielded, Multiconductor, SR-PVC, PVC



UL AWM 2343
UL CMG
CSA CMG FT4

Applications

- Control and signal wiring
- Computers
- Instrumentation

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart E (page 532)

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (10 x 0.20 mm)
 Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4501	7	0.262	6.65	0.063	1.60
M4502	12	0.312	7.92	0.063	1.60
M4503	15	0.332	8.43	0.063	1.60
M4504	19	0.349	8.86	0.063	1.60
M4506	37	0.437	11.10	0.063	1.60

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4508	2	0.229	5.82	0.063	1.60
M4510	7	0.280	7.11	0.063	1.60
M4511	12	0.337	8.56	0.063	1.60
M4512	15	0.360	9.14	0.063	1.60
M4513	19	0.379	9.63	0.063	1.60
M4514	27	0.437	11.10	0.063	1.60
M4515	37	0.479	12.17	0.063	1.60

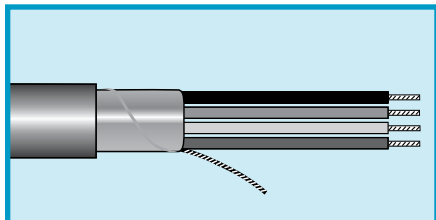
20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
 Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4517	2	0.245	6.22	0.063	1.60
M4518	5	0.287	7.29	0.063	1.60
M4519	7	0.304	7.72	0.063	1.60
M4520	12	0.370	9.40	0.063	1.60
M4522	19	0.419	10.64	0.063	1.60
M4523	27	0.486	12.34	0.063	1.60
M4524	37	0.535	13.59	0.063	1.60

Manhattan™ Computer Cable

300 V Foil Shield, Multiconductor, PVC, PVC



UL AWM 2464

UL CMG

CSA CMG FT4

Applications

- Control and signal wiring
- Computers
- Instrumentation

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

20 AWG (0.56 mm²)

Stranding: 7/28 (10 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code D

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4660	2	0.211	5.36	0.032	0.81
M4661	3	0.222	5.64	0.032	0.81
M4662	4	0.240	6.10	0.032	0.81
M4664	6	0.282	7.16	0.032	0.81
M4665	8	0.304	7.72	0.032	0.81
M4666	10	0.351	8.92	0.032	0.81
M4668	15	0.393	9.98	0.032	0.81
M4670	20	0.437	11.10	0.032	0.81
M4672	25	0.491	12.47	0.032	0.81
M4673	30	0.520	13.21	0.032	0.81
M4675	40	0.625	15.88	0.053	1.35
M4677	50	0.685	17.40	0.053	1.35

18 AWG (0.81 mm²)

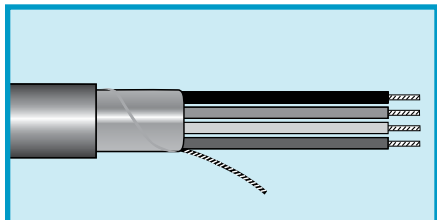
Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code D

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4690	2	0.229	5.82	0.032	0.81
M4691	3	0.241	6.12	0.032	0.81
M4692*	2	0.229	5.82	0.032	0.81
M4693*	3	0.241	6.12	0.032	0.81
M4694	4	0.262	6.65	0.032	0.81
M4696	6	0.309	7.85	0.032	0.81
M4697	8	0.334	8.48	0.032	0.81
M4698	10	0.387	9.83	0.032	0.81
M4700	15	0.436	11.07	0.032	0.81
M4702	20	0.485	12.32	0.032	0.81
M4704	25	0.545	13.84	0.032	0.81
M4706	30	0.620	15.75	0.053	1.35
M4708	40	0.690	17.53	0.053	1.35

*Conductor color coding: 1 Brown, 2 Blue, 3 Green/Yellow.

Manhattan™ Computer Cable

300 V Foil Shield, Multiconductor, PVC, PVC



UL AWM 2464

UL CMG

CSA CMG FT4

Applications

- Control and signal wiring
- Computers
- Instrumentation

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

16 AWG (1.32 mm²)

Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code R

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4720	2	0.253	6.43	0.032	0.81
M4721	3	0.267	6.78	0.032	0.81
M4722*	2	0.253	6.43	0.032	0.81
M4723*	3	0.267	6.78	0.032	0.81
M4724	4	0.291	7.39	0.032	0.81
M4726	6	0.345	8.76	0.032	0.81
M4728	8	0.374	9.50	0.032	0.81
M4730	10	0.435	11.05	0.032	0.81
M4732	15	0.489	12.42	0.032	0.81
M4734	20	0.547	13.89	0.032	0.81
M4736	30	0.697	17.70	0.053	1.35

*Conductor color coding: 1 Brown, 2 Blue, 3 Green/Yellow.

Manhattan™ Computer Cable

300 V Foil Shield, Multiconductor, PVC, PVC



UL AWM 2464

UL CL2

CSA AWM I/II A/B FT4

Applications

- Sound broadcast
- Instrumentation

Operating Temperature

- -20°C to +80°C

Conductor Color Coding

- Chart R (page 535)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

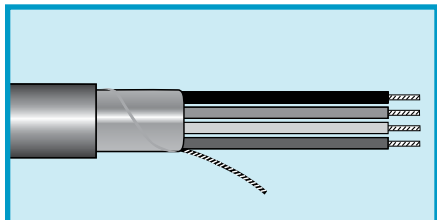
24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
1012405	5	0.190	4.83	0.035	0.89
1012407	7	0.205	5.21	0.035	0.89
1012409	9	0.236	5.99	0.035	0.89

Manhattan™ Computer Cable

300 V Foil Shield, Multiconductor, SR-PVC, PVC



UL AWM 2464

UL CMG

CSA CMG FT4

Applications

- Computer and control applications

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart E (page 532)

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4602	2	0.159	4.04	0.032	0.81
M4603	3	0.166	4.22	0.032	0.81
M4604	4	0.178	4.52	0.032	0.81
M4606	6	0.204	5.18	0.032	0.81
M4607	8	0.217	5.51	0.032	0.81
M4608	10	0.247	6.27	0.032	0.81
M4610	15	0.273	6.93	0.032	0.81
M4612	20	0.301	7.65	0.032	0.81
M4614	25	0.335	8.51	0.032	0.81
M4616	30	0.353	8.97	0.032	0.81
M4618	40	0.393	9.98	0.032	0.81
M4620	50	0.430	10.92	0.032	0.81

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4633	2	0.171	4.34	0.032	0.81
M4634	3	0.179	4.55	0.032	0.81
M4635	4	0.192	4.88	0.032	0.81
M4636	6	0.222	5.64	0.032	0.81
M4638	8	0.237	6.02	0.032	0.81
M4640	10	0.271	6.88	0.032	0.81
M4642	15	0.301	7.65	0.032	0.81
M4644	20	0.333	8.46	0.032	0.81
M4646	25	0.371	9.42	0.032	0.81
M4648	30	0.392	9.96	0.032	0.81
M4650	40	0.436	11.07	0.032	0.81
M4652	50	0.479	12.17	0.032	0.81



Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multiconductor, SR-PVC, PVC



UL AWM 2464
UL CMG
CSA CMG FT4

Applications

- RS-232
- Modems
- Multiplexers
- Serial data interfaces

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Foil + braid shield
 Aluminum/polyester foil shield,
 25% overlap min.
 Foil facing outward
 Stranded tinned copper drain
 wire equal in size to conductor
 Tinned copper braid, 65% or
 70% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

65% Braid Coverage

28 AWG (0.08 mm²)

Stranding: 7/36 (7 x 0.12 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Color Code D

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M2403	3	0.165	4.19	0.032	0.81
M2404	4	0.175	4.45	0.032	0.81
M2405	5	0.185	4.70	0.032	0.81
M2406	6	0.196	4.98	0.032	0.81
M2407	7	0.196	4.98	0.032	0.81
M2408	8	0.206	5.23	0.032	0.81
M2409	9	0.217	5.51	0.032	0.81
M2410	10	0.230	5.84	0.032	0.81
M2412	15	0.251	6.38	0.032	0.81
M2414	25	0.300	7.62	0.032	0.81
M2416	37	0.335	8.51	0.032	0.81
M2420	50	0.376	9.55	0.032	0.81

Mutual capacitance: 25 pF/ft (82 pF/m)
 Ground capacitance: 45 pF/ft (147.6 pF/m)

70% Braid Coverage

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Color Code E

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5302	2	0.181	4.60	0.032	0.81
M5303	3	0.188	4.78	0.032	0.81
M5304	4	0.199	5.05	0.032	0.81
M5306	6	0.226	5.74	0.032	0.81
M5307	8	0.239	6.07	0.032	0.81
M5308	10	0.269	6.83	0.032	0.81
M5310	15	0.295	7.49	0.032	0.81
M5312	20	0.323	8.20	0.032	0.81
M5314	25	0.357	9.07	0.032	0.81
M5316	30	0.375	9.53	0.032	0.81
M5318	40	0.415	10.54	0.032	0.81
M5320	50	0.452	11.48	0.032	0.81

Mutual capacitance: 32 pF/ft (105 pF/m)
 Ground capacitance: 58 pF/ft (190.3 pF/m)

Part No. M5302:
 Mutual capacitance: 35 pF/ft (114.8 pF/m)
 Ground capacitance: 63 pF/ft (206.7 pF/m)

Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multiconductor, SR-PVC, PVC



UL AWM 2464
UL CMG
CSA CMG FT4

Applications

- RS-232
- Modems
- Multiplexers
- Serial data interfaces

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Foil + braid shield
 Aluminum/polyester foil shield,
 25% overlap min.
 Foil facing outward
 Stranded tinned copper drain
 wire equal in size to conductor
 Tinned copper braid, 65% or
 70% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

65% Braid Coverage

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
 Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M2438	3	0.185	4.70	0.032	0.81	O
M2439	4	0.196	4.98	0.032	0.81	O
M2440	5	0.209	5.31	0.032	0.81	O
M2441	6	0.223	5.66	0.032	0.81	O
M2442	7	0.223	5.66	0.032	0.81	O
M2443	8	0.236	5.99	0.032	0.81	O
M2444	9	0.250	6.35	0.032	0.81	O
M2445	10	0.266	6.76	0.032	0.81	O
M2447	15	0.292	7.42	0.032	0.81	F
M2449	25	0.354	8.99	0.032	0.81	F
M2452	37	0.398	10.11	0.032	0.81	F
M2455	50	0.449	11.40	0.032	0.81	F

Mutual capacitance: 32 pF/ft (105 pF/m)
 Ground capacitance: 58 pF/ft (190 pF/m)

70% Braid Coverage

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Color Code E

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5333	2	0.193	4.90	0.032	0.81
M5334	3	0.201	5.11	0.032	0.81
M5335	4	0.214	5.44	0.032	0.81
M5336	6	0.244	6.20	0.032	0.81
M5338	8	0.259	6.58	0.032	0.81
M5340	10	0.293	7.44	0.032	0.81
M5342	15	0.323	8.20	0.032	0.81
M5344	20	0.355	9.02	0.032	0.81
M5346	25	0.393	9.98	0.032	0.81
M5348	30	0.414	10.52	0.032	0.81
M5350	40	0.458	11.63	0.032	0.81
M5352	50	0.501	12.73	0.032	0.81

Mutual capacitance: 36 pF/ft (118.1 pF/m)
 Ground capacitance: 65 pF/ft (213.3 pF/m)

Part No. M5333:
 Mutual capacitance: 39 pF/ft (128 pF/m)
 Ground capacitance: 70 pF/ft (229.7 pF/m)



Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multiconductor, SR-PVC, PVC



UL AWM 2464
UL CMG
CSA CMG FT4

Applications

- RS-232
- Modems
- Multiplexers
- Serial data interfaces

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- See table

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Foil + braid shield
 Aluminum/polyester foil shield,
 25% overlap min.
 Foil facing outward
 Stranded tinned copper drain
 wire equal in size to conductor
 Tinned copper braid, 65% or
 70% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

65% Braid Coverage

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M2473	3	0.198	5.03	0.032	0.81	O
M2474	4	0.211	5.36	0.032	0.81	O
M2475	5	0.226	5.74	0.032	0.81	O
M2476	6	0.241	6.12	0.032	0.81	O
M2477	7	0.241	6.12	0.032	0.81	O
M2478	8	0.256	6.50	0.032	0.81	O
M2479	9	0.272	6.91	0.032	0.81	O
M2480	10	0.290	7.37	0.032	0.81	O
M2481	15	0.320	8.13	0.032	0.81	F
M2482	25	0.390	9.91	0.032	0.81	F
M2483	37	0.440	11.18	0.032	0.81	F
M2485	50	0.504	12.80	0.035	0.86	F

Mutual capacitance: 36 pF/ft (118.1 pF/m)
 Ground capacitance: 65 pF/ft (213.3 pF/m)

Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multiconductor, SR-PVC, PVC



UL AWM 2343

UL CMG

CSA CMG FT4

Applications

- Computer and control applications

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart E (page 532)

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Foil + braid shield
Aluminum/polyester foil shield,
25% overlap min.
Foil facing outward
Stranded tinned copper drain
wire equal in size to conductor
Tinned copper braid,
70% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5500	5	0.274	6.96	0.063	1.60
M5501	7	0.288	7.32	0.063	1.60
M5502	12	0.338	8.59	0.063	1.60
M5503	15	0.357	9.07	0.063	1.60
M5504	19	0.375	9.53	0.063	1.60
M5505	27	0.426	10.82	0.063	1.60
M5506	37	0.463	11.76	0.063	1.60
M5507	48	0.514	13.06	0.063	1.60
M5508	60	0.551	14.00	0.063	1.60

Mutual capacitance: 32 pF/ft (105 pF/m)
Ground capacitance: 58 pF/ft (190 pF/m)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5509	5	0.291	7.39	0.063	1.60
M5510	7	0.306	7.77	0.063	1.60
M5511	12	0.363	9.22	0.063	1.60
M5512	15	0.385	9.78	0.063	1.60
M5513	19	0.405	10.29	0.063	1.60
M5514	27	0.463	11.76	0.063	1.60
M5515	37	0.505	12.83	0.063	1.60
M5516	48	0.563	14.30	0.063	1.60
M5517	60	0.605	15.37	0.063	1.60

Mutual capacitance: 36 pF/ft (118.1 pF/m)
Ground capacitance: 65 pF/ft (213.3 pF/m)

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

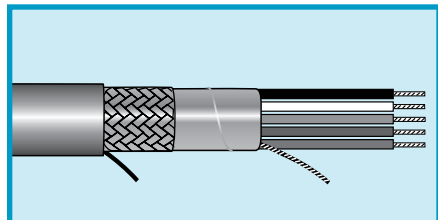
Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5518	5	0.312	7.92	0.063	1.60
M5519	7	0.330	8.38	0.063	1.60
M5520	12	0.396	10.06	0.063	1.60
M5521	15	0.421	10.69	0.063	1.60
M5522	19	0.445	11.30	0.063	1.60
M5523	27	0.512	13.00	0.063	1.60
M5524	37	0.561	14.25	0.063	1.60
M5525	48	0.628	15.95	0.063	1.60
M5526	60	0.683	17.35	0.063	1.60

Mutual capacitance: 40 pF/ft (131.2 pF/m)
Ground capacitance: 72 pF/ft (236.2 pF/m)



Manhattan™ Computer Cable

300 V Foil/Braid Shield, Low Capacitance, Multiconductor, FPE, PVC



UL AWM 2919 (30 V)

UL CM VW-1

CSA CM FT4

Applications

- RS-232, RS-422
- Modems
- Multiplexers
- Serial data interfaces

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)

Conductor Color Coding

- See table

Materials

- Stranded tinned copper conductors
- Foam polyethylene insulation
- Foil + braid shield
Aluminum/polyester foil shield,
25% overlap min.
Foil facing outward
- Stranded tinned copper drain
wire equal in size to conductor
- Tinned copper braid,
65% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness		Color Code
		Inch	mm	Inch	mm	
M2456	3	0.217	5.51	0.035	0.89	O
M2457	4	0.231	5.87	0.035	0.89	O
M2458	5	0.248	6.30	0.035	0.89	O
M2459	6	0.265	6.73	0.035	0.89	O
M2460	7	0.265	6.73	0.035	0.89	O
M2461	8	0.282	7.16	0.035	0.89	O
M2462	9	0.300	7.62	0.035	0.89	O
M2463	10	0.320	8.13	0.035	0.89	O
M2465	15	0.353	8.97	0.035	0.89	F
M2467	25	0.432	10.97	0.035	0.89	F
M2470	37	0.488	12.40	0.035	0.89	F

Mutual capacitance: 11.9 pF/ft (39 pF/m)
Ground capacitance: 21.4 pF/ft (70.2 pF/m)



Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multiconductor, PVC, PVC



UL AWM 2464

UL CMG

CSA CMG FT4

Applications

- Computer and control

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart D (page 531)

Materials

- Stranded tinned copper conductors
- PVC insulation
- Foil + braid shield
Aluminum/polyester foil shield,
25% overlap min.
Foil facing outward
Stranded tinned copper drain
wire equal in size to conductor
Tinned copper braid,
70% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)



20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5360	2	0.233	5.92	0.032	0.81
M5361	3	0.241	6.12	0.032	0.81
M5362	4	0.262	6.65	0.032	0.81
M5364	6	0.304	7.72	0.032	0.81
M5365	8	0.326	8.28	0.032	0.81
M5366	10	0.373	9.47	0.032	0.81
M5368	15	0.415	10.54	0.032	0.81
M5370	20	0.459	11.66	0.032	0.81
M5372	25	0.513	13.03	0.032	0.81
M5375	40	0.653	16.59	0.053	1.35
M5377	50	0.713	18.11	0.053	1.35

18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5390	2	0.251	6.38	0.032	0.81
M5391	3	0.263	6.68	0.032	0.81
M5392*	2	0.251	6.38	0.032	0.81
M5393*	3	0.263	6.68	0.032	0.81
M5394	4	0.284	7.21	0.032	0.81
M5396	6	0.328	8.33	0.032	0.81
M5397	8	0.356	9.04	0.032	0.81
M5398	10	0.409	10.39	0.032	0.81
M5400	15	0.456	11.58	0.032	0.81
M5402	20	0.507	12.88	0.032	0.81
M5404	25	0.609	15.47	0.053	1.35
M5406	30	0.648	16.46	0.053	1.35

*Conductor color coding: 1 Brown, 2 Blue, 3 Green/Yellow.

16 AWG (1.32 mm²)

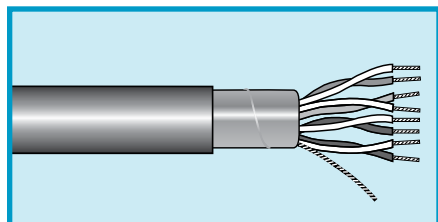
Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5420	2	0.275	6.99	0.032	0.81
M5421	3	0.289	7.34	0.032	0.81
M5422*	2	0.275	6.99	0.032	0.81
M5423*	3	0.289	7.34	0.032	0.81
M5424	4	0.313	7.95	0.032	0.81
M5426	6	0.367	9.32	0.032	0.81
M5428	8	0.396	10.06	0.032	0.81
M5430	10	0.457	11.61	0.032	0.81
M5432	15	0.511	12.98	0.032	0.81
M5434	20	0.611	15.52	0.053	1.35
M5436	25	0.687	17.45	0.053	1.35

*Conductor color coding: 1 Brown, 2 Blue, 3 Green/Yellow.

Manhattan™ Computer Cable

300 V Foil Shield, Multipair, PVC, PVC



UL AWM 2464

UL CMG

CSA CMG FT4

Applications

- Modems
- Multiplexers
- General data interfaces

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart A (page 528)

Materials

- Solid or stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
- Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

22 AWG (0.35 mm²)

Stranding: Solid
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3191	51	0.710	18.03	0.050	1.27
M3192	102	1.120	28.45	0.085	2.16

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4785	2	0.301	7.65	0.032	0.81
M4786	3	0.319	8.10	0.032	0.81
M4789	12	0.548	13.92	0.032	0.81
M4791	19	0.688	17.48	0.053	1.35

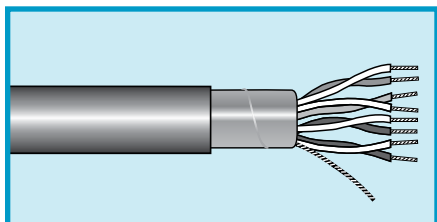
18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4799	2	0.330	8.38	0.032	0.81
M4793	3	0.350	8.89	0.032	0.81
M4794	6	0.462	11.73	0.032	0.81

Manhattan™ Computer Cable

300 V Foil Shield, Multipair, SR-PVC or PP, PVC



UL AWM 2464
UL CMG
CSA CMG FT4

Applications

- RS-232
- Modems
- Multiplexers
- Serial data interfaces

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- See tables

Materials

- Solid or stranded tinned copper conductors
- Semirigid PVC or polypropylene insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

SR-PVC Insulation

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Color Code K

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M13190	1	0.159	4.04	0.032	0.81
M13191	2	0.215	5.46	0.032	0.81
M13192	3	0.227	5.77	0.032	0.81
M13193	4	0.246	6.25	0.032	0.81
M13194	5	0.267	6.78	0.032	0.81
M13195	6	0.289	7.34	0.032	0.81
M13196	7	0.289	7.34	0.032	0.81
M13197	8	0.311	7.90	0.032	0.81
M13198	9	0.334	8.48	0.032	0.81
M13199	10	0.360	9.14	0.032	0.81
M4758*	11	0.360	9.14	0.032	0.81
M13200	15	0.402	10.21	0.032	0.81
M3189	19	0.432	10.97	0.032	0.81
M13201	25	0.510	12.95	0.035	0.89
M4761*	27	0.515	13.08	0.032	0.89
M13202**	50	0.666	16.92	0.035	0.89

*Color code Chart B (page 528)

**Color code Chart A1 (page 528)

SR-PVC Insulation

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Color Code B

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M4770	2	0.235	5.97	0.032	0.81
M4771	3	0.248	6.30	0.032	0.81
M4772	4	0.269	6.83	0.032	0.81
M4773	5	0.293	7.44	0.032	0.81
M4774	6	0.318	8.08	0.032	0.81
M4775	9	0.369	9.37	0.032	0.81
M4776	11	0.399	10.13	0.032	0.81
M4777	15	0.448	11.38	0.032	0.81
M4778	19	0.481	12.22	0.032	0.81
M4779	27	0.618	15.70	0.053	1.35

Polypropylene Insulation

22 AWG (0.35 mm²)

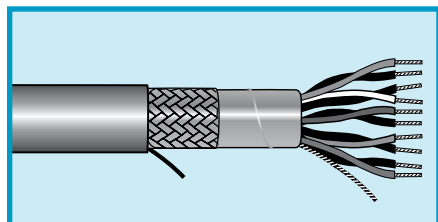
Stranding: Solid
 Insulation thickness: 0.008 (0.20 mm)
 Color Code K

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3190	38	0.610	15.49	0.045	1.14



Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multipair, SR-PVC, PVC



UL AWM 1061
UL AWM 2343
UL CMG
CSA CMG FT4

Applications

- Control, signal, and data transmission computers
- Industrial and electronic equipment

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- Chart B (page 528)

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire equal in size to conductor
- Tinned copper braid, 70% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5650	5	0.351	8.92	0.063	1.60
M5651	7	0.373	9.47	0.063	1.60
M5652	12	0.455	11.56	0.063	1.60
M5653	15	0.486	12.34	0.063	1.60
M5654	19	0.516	13.11	0.063	1.60
M5655	27	0.599	15.21	0.063	1.60
M5656	37	0.666	16.92	0.063	1.60

Mutual capacitance: 23.1 pF/ft (75.8 pF/m)
Ground capacitance: 42 pF/ft (137.8 pF/m)

Part No. M5650
Mutual capacitance: 25 pF/ft (82 pF/m)
Ground capacitance: 45 pF/ft (147.6 pF/m)

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M5660	5	0.377	9.58	0.063	1.60
M5661	7	0.402	10.21	0.063	1.60
M5662	12	0.496	12.60	0.063	1.60
M5665	27	0.666	16.92	0.063	1.60
M5666	37	0.735	18.67	0.063	1.60

Ground capacitance: 49 pF/ft (160.8 pF/m)

20 AWG (0.56 mm²)

Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	Mm
M5670	5	0.413	10.49	0.063	1.60
M5671	7	0.442	11.23	0.063	1.60
M5673	15	0.592	15.04	0.063	1.60
M5674	19	0.631	16.03	0.063	1.60
M5675	27	0.746	18.95	0.063	1.60

Mutual capacitance: 27 pF/ft (88.6 pF/m)
Ground capacitance: 49 pF/ft (160.8 pF/m)

Part No. M5670
Mutual capacitance: 29 pF/ft (95.1 pF/m)
Ground capacitance: 52 pF/ft (170.6 pF/m)

Manhattan™ Computer Cable

300 V Foil Shield, Low Capacitance, 100 ohm, Multipair, FPP, PVC



UL AWM 2493

UL CM

CSA CM FT4

Applications

- RS-232
- RS-422

Operating Temperature

- -20°C to +75°C (CM)
- -20°C to +60°C (AWM)

Conductor Color Coding

- Chart K (page 529)

Materials

- Stranded tinned copper conductors
- Foam polypropylene insulation
- Aluminum/polyester foil shield, 25% overlap min.
Foil facing inward
Stranded tinned copper drain wire equal in size to conductor
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.0185 (0.47 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M39249	2	0.323	8.20	0.048	1.22
M39250	3	0.340	8.64	0.048	1.22
M39251	4	0.369	9.37	0.048	1.22
M39252	6	0.436	11.07	0.048	1.22
M39254	9	0.506	12.85	0.048	1.22
M39256	11	0.580	14.73	0.065	1.65
M39257	12	0.597	15.16	0.065	1.65
M39259	15	0.646	16.41	0.065	1.65
M39260	17	0.682	17.32	0.065	1.65
M39262	19	0.693	17.60	0.065	1.65
M39268	27	0.821	20.85	0.065	1.65

Mutual capacitance: 12.5 pF/ft (41 pF/m)
Ground capacitance: 23 pF/ft (75.5 pF/m)

Part No. 39256
Mutual capacitance: 11.9 pF/ft (39 pF/m)
Ground capacitance: 21.4 pF/ft (70.2 pF/m)

Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multipair, FPP, PVC



UL AWM 2919 (30 V)

UL CM

CSA CM

Applications

- RS-422
- Modems
- Multiplexers

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)

Conductor Color Coding

- Chart M (page 530)

Materials

- Stranded tinned copper conductors
- Foam polypropylene insulation
- Foil + braid shield
Aluminum/polyester foil shield,
25% overlap min.
Foil facing outward
Stranded tinned copper drain
wire equal in size to conductor
Tinned copper braid,
65% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

28 AWG (0.09 mm²)

Stranding: 7/36 (7 x 0.13 mm)
Insulation thickness: 0.0145 (0.37 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M2487	2	0.240	6.10	0.035	0.89
M2488	3	0.252	6.40	0.035	0.89
M2489	4	0.271	6.88	0.035	0.89
M2490	5	0.292	7.42	0.035	0.89
M2492	7	0.314	7.98	0.035	0.89
M2493	8	0.336	8.53	0.035	0.89
M2494	10	0.385	9.78	0.035	0.89
M2495*	12.5	0.395	10.03	0.035	0.89
M2496	15	0.427	10.85	0.035	0.89
M2497	18	0.457	11.61	0.035	0.89
M2498	25	0.555	14.10	0.048	1.22

Mutual capacitance: 11 pF/ft (36.1 pF/m)
Ground capacitance: 20 pF/ft (65.6 pF/m)

*Discrete conductor is polyethylene insulated.

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.0125 (0.32 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3420	2	0.257	6.53	0.035	0.89
M3421	3	0.269	6.83	0.035	0.89
M3422	4	0.290	7.37	0.035	0.89
M3423	5	0.314	7.98	0.035	0.89
M3424	6	0.338	8.59	0.035	0.89
M3425	7	0.338	8.59	0.035	0.89
M3426	8	0.363	9.22	0.035	0.89
M3427	10	0.417	10.59	0.035	0.89
M3428*	12.5	0.429	10.90	0.035	0.89
M3429	15	0.475	12.07	0.040	1.02
M3430	18	0.524	13.31	0.048	1.22
M3431	25	0.608	15.44	0.050	1.27

Mutual capacitance: 12.5 pF/ft (41 pF/m)
Ground capacitance: 22 pF/ft (72.2 pF/m)

*Discrete conductor is polyethylene insulated.

Manhattan™ Computer Cable

300 V Foil/Braid Shield, Low Capacitance, Multipair, FPP, PVC



UL AWM 2343

UL CM

CSA CM

Applications

- RS-422
- Modems
- Multiplexers

Operating Temperature

- -20°C to +75°C (AWM)
- -20°C to +75°C (CM)

Conductor Color Coding

- Chart K (page 529)

Materials

- Stranded tinned copper conductors
- Foam polypropylene insulation
- Foil + braid shield
Aluminum/polyester foil shield,
25% overlap min.
Foil facing outward
Stranded tinned copper drain
wire equal in size to conductor
Tinned copper braid,
65% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.0185 (0.47 mm)

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3475	2	0.346	8.79	0.048	1.22
M3476	3	0.363	9.22	0.048	1.22
M3477	4	0.392	9.96	0.048	1.22
M3478	5	0.425	10.80	0.048	1.22
M3479	6	0.459	11.66	0.048	1.22
M3480	7	0.459	11.66	0.048	1.22
M3481	8	0.494	12.55	0.048	1.22
M3482	10	0.603	15.32	0.065	1.65
M3483	15	0.669	16.99	0.065	1.65
M3484	18	0.716	18.19	0.065	1.65
M3485	25	0.832	21.13	0.065	1.65

Mutual capacitance: 12.5 pF/ft (41 pF/m)
Ground capacitance: 23 pF/ft (23 pF/m)

Part No. M3484 and 3485:
Mutual capacitance: 11.9 pF/ft (39 pF/m)
Ground capacitance: 21.4 pF/ft (21.4 pF/m)

Manhattan™ Computer Cable

300 V Foil/Braid Shield, Low Capacitance, 100 Ohm, Multipair, PE, PVC



UL AWM 2960 (30 V)

UL 2919 (30 V)

UL CM

CSA CM

Applications

- RS-422
- Modems
- Multiplexers

Operating Temperature

- -20°C to +80°C (AWM 2919)
- -20°C to +75°C (CM)
- -20°C to +60°C (AWM 2960)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Foil + braid shield
Aluminum/polyester foil shield, 25% overlap min.
Foil facing outward
- Stranded tinned copper drain wire equal in size to conductor
- Tinned copper braid, 90% coverage (65% where noted)
- Slate PVC jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

Bulk, cut to length

(Minimums may apply)

UL AWM 2960, CM

28 AWG (0.08 mm²)

Stranding: 7/36 (7 x 0.12 mm)
Insulation thickness: 0.010 (0.25 mm)
Color Code K

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3970	2	0.205	5.21	0.032	0.81
M3971	3	0.214	5.44	0.032	0.81
M3972	4	0.229	5.82	0.032	0.81
M3973	5	0.246	6.25	0.032	0.81
M3974	7	0.263	6.68	0.032	0.81
M3975	9	0.299	7.59	0.032	0.81
M3977	12	0.329	8.36	0.032	0.81
M3931	13	0.335	8.51	0.032	0.81
M3978	18	0.377	9.58	0.032	0.81
M3979	25	0.440	11.18	0.032	0.81
M3932	31	0.470	11.94	0.032	0.81

Mutual capacitance: 15.5 pF/ft (50.9 pF/m)
Ground capacitance: 27.5 pF/ft (90.2 pF/m)

UL AWM 2919, CM

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.25 mm)
Color Code M

Part No.	Pairs	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M3993[†]	1	0.208	5.28	0.035	0.89
M3980*	2	0.274	6.96	0.032	0.81
M3990[†]	2	0.280	7.11	0.035	0.89
M3981*	3	0.288	7.32	0.032	0.81
M3991[†]	3	0.294	7.47	0.035	0.89
M3982*	4	0.312	7.92	0.032	0.81
M3992[†]	4	0.318	8.08	0.035	0.89
M3983*	5	0.339	8.61	0.032	0.81
M3940*	6	0.367	9.32	0.032	0.81
M3984*	7	0.367	9.32	0.032	0.81
M3985*	9	0.424	10.77	0.032	0.81
M3986*	10	0.457	11.61	0.032	0.81
M3987*	12	0.482	12.24	0.037	0.94
M3988*	18	0.560	14.22	0.047	1.19
M3989*	25	0.671	17.04	0.047	1.19

Mutual capacitance: 15.5 pF/ft (50.9 pF/m)
Ground capacitance: 27.5 pF/ft (90.2 pF/m)

[†]120-ohm impedance
Mutual capacitance: 12.8 pF/ft (42 pF/m)
Ground capacitance: 23 pF/ft (75 pF/m)

*65% braid coverage.

Manhattan™ Computer Cable

300 V Foil/Braid Shield, Multipair, SR-PVC, PVC



UL AWM 2464
UL CMG
CSA CMG FT4

Applications

- RS-422
- Modems
- Multiplexers

Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CMG)

Conductor Color Coding

- See tables

Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Foil + braid shield
 Aluminum/polyester foil shield,
 25% overlap min.
 Foil facing outward
 Stranded tinned copper drain
 wire, 24 AWG (0.22 mm²),
 7/32 (7 x 0.20 mm) stranding
 Tinned copper braid,
 65% coverage
- Slate PVC jacket

Availability

100 ft (30.5 m)
 500 ft (152 m)
 1000 ft (305 m)
 Bulk, cut to length
 (Minimums may apply)

24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Color Code M

Part No.	Pairs	Nominal Diameter		Jacket Thickness		Capacitance			
		Inch	mm	Inch	mm	Mutual		Ground	
						pF/ft	pF/m	pF/ft	pF/m
M3446	2	0.234	5.94	0.032	0.81	28	92	50	164
M3447	3	0.246	6.25	0.032	0.81	25	82	45	147.6
M3448	4	0.265	6.73	0.032	0.81	25	82	45	147.6
M3449	5	0.286	7.26	0.032	0.81	25	82	45	147.6
M3450	6	0.308	7.82	0.032	0.81	23.1	75.8	42	137.8
M3451	7	0.308	7.82	0.032	0.81	23.1	75.8	42	137.8
M3452	8	0.330	8.38	0.032	0.81	23.1	75.8	42	137.8
M3453	10	0.379	9.63	0.032	0.81	23.1	75.8	42	137.8
M3454	12	0.389	9.88	0.032	0.81	23.1	75.8	42	137.8
M3455	15	0.421	10.69	0.032	0.81	23.1	75.8	42	137.8

22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)
 Color Code A

Part No.	Pairs	Nominal Diameter		Jacket Thickness		Capacitance			
		Inch	mm	Inch	mm	Mutual		Ground	
						pF/ft	pF/m	pF/ft	pF/m
M3433	2	0.254	6.45	0.032	0.81	31	101.7	56	183.7
M3434	3	0.267	6.78	0.032	0.81	27	88.6	49	160.8
M3435	4	0.288	7.32	0.032	0.81	27	88.6	49	160.8
M3436	5	0.312	7.92	0.032	0.81	27	88.6	49	160.8
M3437	6	0.337	8.56	0.032	0.81	27	88.6	49	160.8
M3438	7	0.337	8.56	0.032	0.81	24.9	81.7	45	147.6
M3439	8	0.363	9.22	0.032	0.81	24.9	81.7	45	147.6
M3440	10	0.418	10.62	0.032	0.81	24.9	81.7	45	147.6
M3441	12	0.430	10.92	0.032	0.81	24.9	81.7	45	147.6
M3442	15	0.473	12.01	0.035	0.81	24.9	81.7	45	147.6
M3443	18	0.506	12.85	0.035	0.81	24.9	81.7	45	147.6
M3444	25	0.588	14.94	0.035	0.81	24.9	81.7	45	147.6

Manhattan™ Coaxial Cable

Coaxial and Twinax Cable

For a complete range of 50, 75, 93, and 100 ohm coaxial and twinaxial, we offer a wide range of insulations and jackets meeting the requirements of military specifications and regulatory agencies such as UL and CSA.



For broadcast-quality video transmission, our precision video cables use FEP dielectrics to achieve low capacitance, high velocities of propagation, and tight tolerances for maximum signal integrity.

Availability

- A. 100 ft (30.5 m)
- B. 500 ft (152 m)
- C. 500 ft (152 m) boxed
- D. 1000 ft (305 m)
- E. 1000 ft (305 m) boxed
- F. 2000 ft (610 m)
- G. Bulk, cut to length
(Minimums may apply)

50-Ohm Transmission and Computer Cables

RG-55B/U, RG-58/U, RG-58A/U, and RG-58C/U Coaxial Cables

Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm ²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9058	20 (0.52)	Solid	BC	PE	0.116 (2.95)	TC Braid, 80%	Black Type I PVC	0.195 (4.95)
9058A	20 (0.48)	19/0.0071 (19 x 0.18)	TC	PE	0.116 (2.95)	TC Braid, 95%	Black Type I PVC	0.195 (4.95)
9058AC	20 (0.48)	19/0.0071 (19 x 0.18)	TC	PE	0.116 (2.95)	TC Braid, 95%	Black Type I PVC	0.195 (4.95)
9058C	20 (0.48)	19/0.0072 (19 x 0.18)	TC	PE	0.116 (2.95)	TC Braid, 95%	Black Type IIA PVC	0.195 (4.95)
9058X	20 (0.52)	Solid	BC	PE	0.116 (2.95)	TC Braid, 95%	Black Type I PVC	0.195 (4.95)
9158S	20 (0.52)	Solid	BC	FEP	0.107 (2.72)	TC Braid, 95%	Black FEP	0.159 (4.04)
M4210	20 (0.62)	19/32 (19 x 0.20)	TC	Foam PE	0.116 (2.95)	TC Braid, 93%	Black or White Type I PVC	0.193 (4.90)
M4213	20 (0.48)	19/0.0072 (19 x 0.18)	TC	PE	0.116 (2.95)	TC Braid, 94%	Black Type IIA PVC	0.195 (4.95)
M4219	20 (0.48)	19/0.0071 (19 x 0.18)	TC	PE	0.117 (2.97)	TC Braid, 91%	Black Type I PVC	0.203 (5.16)
M44209	20 (0.52)	Solid	BC	FEP	0.107 (2.72)	TC Braid, 95%	White Plenum PVC	0.159 (4.04)
9848	18 (0.82)	Solid	BC	Foam PE	0.116 (2.95)	TC Braid, 95%	Black Type I PVC	0.195 (4.95)



Manhattan™ Coaxial Cable

50-Ohm Transmission and Computer Cables					
RG-55B/U, RG-58/U, RG-58A/U, and RG-58C/U Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9058	53	66	28.5 (93.5)	UL AWM 1354 JAN-C-17A/RG-58/U	A, B, D
9058A	50	66	30.8 (101.1)	JAN-C-17A/RG-58A/U Type	A, B, C, D, E
9058AC	50	66	30.8 (101.1)	CL2 JAN-C-17A/RG-58A/U Type	A, B, D, E
9058C	50	66	30.8 (101.1)	MIL-DTL-17/28B RG 58C/U	A, B, D, E
9058X	53.5	66	28.5 (93.5)	UL AWM 1354 UL CL2 JAN-C-17A/RG-58/U	A, B, C, D, E
9158S	50	70	30 (98.4)	UL CL2P CSA CMP FT6 MIL-DTL-17/28 RG-58/U Type	B, D
M4210	52	76	26 (85.3)	UL AWM 1354 UL CM CSA CM JAN-C-17A/RG-58/U	A, B, D
M4213	50	66	30.8 (101.1)	MIL-DTL-17/28B RG-58C/U	A, B, D
M4219	50	66	30.8 (101.1)	UL CM CSA CM JAN-C-17A/RG-58A/U Type	A, B, D
M44209	53	69.5	26.4 (86.6)	UL CMP CSA CMP FT6 MIL-DTL-17/RG-58/U Type	A, B, D, G
9848	50	78	26 (85.3)	UL AWM 1354 MIL-DTL-17/28B RG-58/U Type	A, B, D, E



Manhattan™ Coaxial Cable



50-Ohm Transmission and Computer Cables								
RG-55B/U Coaxial Cables								
Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9055B	20 (0.52)	Solid	SPC	PE	0.116 (2.95)	DbI TC Braid, 95%	Black PE	0.201 (5.11)



50-Ohm Transmission and Computer Cables								
RG-8/U and RG-8A/U Type Coaxial Cables								
Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9008	13 (2.90)	7/21 (7 x 0.72)	BC	PE	0.285 (7.24)	BC Braid, 94%	Black Type I PVC	0.405 (10.29)
M4201	13 (2.90)	7/21 (7 x 0.72)	BC	PE	0.285 (7.24)	BC Braid, 95%	Black Type IIA PVC	0.405 (10.29)
M4206	11 (4.60)	7/19 (7 x 0.91)	BC	Foam PE	0.285 (7.24)	BC Braid, 96%	Black PVC	0.403 (10.24)



Manhattan™ Coaxial Cable

50-Ohm Transmission and Computer Cables					
RG-55B/U Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9055B	53.5	66	28.8 (94.5)	MIL-DTL-17D/26A RG-55B/U	A, B, D

50-Ohm Transmission and Computer Cables					
RG-8/U and RG-8A/U Type Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9008	52	66	29.5 (96.8)	JAN-C-17A/RG-8/U	A, B, D
M4201	52	66	28.5 (93.5)	UL AWM 1354 UL CMX CSA CMX MIL-DTL-17D/3A RG-8A/U	A, B, D
M4206	50	78	26 (85.3)	UL AWM 1354 UL CM CSA CM MIL-DTL-17/RG-8/U Type	A, B, D



Manhattan™ Coaxial Cable



50-Ohm Transmission and Computer Cables

RG-142B/U, RG-174 Type, RG-178B/U, RG-188A/U, RG-196A/U, RG-213 Type, RG-214 Type, RG-217/U, RG-223/U, RG-316/U Coaxial Cables

Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm ²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9178B	30 (0.05)	7/38 (7 x 0.10)	SCW	PTFE	0.034 (0.86)	SPC Braid, 94%	Natural Tan FEP	0.071 (1.80)
9196A	30 (0.05)	7/38 (7 x 0.10)	SCW	PTFE	0.034 (0.86)	SPC Braid, 94%	Natural PTFE Tape	0.075 (1.91)
9174	26 (0.14)	7/34 (7 x 0.16)	BCW	PE	0.060 (1.52)	TC Braid, 85%	Black or Red Type I PVC	0.102 (2.59)
9188A	25 (0.16)	7/0.0067 (7 x 0.17)	SCW	PTFE	0.060 (1.52)	SPC Braid, 94%	White PTFE Tape	0.105 (2.67)
9316	25 (0.16)	7/0.0067 (7 x 0.17)	SCW	PTFE	0.060 (1.52)	SPC Braid, 94%	Natural Tan FEP	0.098 (2.49)
9223	19 (0.62)	Solid	SPC	PE	0.116 (2.95)	Dbl SPC Braid, 95%	Black Type IIA PVC	0.212 (5.38)
M4251	19 (0.69)	Solid	SCW	PTFE	0.116 (2.95)	Dbl SPC Braid, 95%	Natural Tan FEP	0.195 (4.95)
9213	13 (3.11)	7/0.0296 (7 x 0.75)	BC	PE	0.285 (7.24)	BC Braid, 96%	Black Type IIA PVC	0.405 (10.29)
9214	13 (3.11)	7/0.0296 (7 x 0.75)	SPC	PE	0.285 (7.34)	Dbl SPC Braid, 95%	Black Type IIA PVC	0.425 (10.80)
9217	10 (5.70)	Solid	BC	PE	0.370 (9.40)	Dbl BC Braid, 95%	Black Type IIA PVC	0.545 (13.84)



Manhattan™ Coaxial Cable

50-Ohm Transmission and Computer Cables					
RG-142B/U, RG-174 Type, RG-178B/U, RG-188A/U, RG-196A/U, RG-213 Type, RG-214 Type, RG-217/U, RG-223/U, RG-316/U Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9178B	50	70	29.3 (96.1)	MIL-DTL-17/RG-178B/U	A, B, D, G
9196A	50	70	29.3 (96.1)	MIL-DTL-17/RG-196A/U	A, B, D, G
9174	50	66	30.8 (101.1)	UL AWM 1354 MIL-DTL-17D/119F RG-174/U	A, B, D
9188A	50	70	29.3 (96.1)	MIL-DTL-17/69B RG-188A/U	A, B, D, G
9316	50	70	29.3 (96.1)	AWM 1971 CSA CMX FT4 MIL-DTL-17 M17/113 RG-316	A, B, D, G
9223	50	66	30.8 (101.1)	MIL-DTL-17D/84B RG-223/U	A, B, D
M4251	50	70	29 (95.1)	MIL-DTL-17/RG-142B/U	A, B, D, G
9213	50	66	30.8 (101.1)	MIL-DTL-17/74A RG-213 Type	A, B, D
9214	50	66	30.8 (101.1)	AWM 1354 MIL-DTL-17/75D RG-214/U	A, B, D, G
9217	50	66	30.8 (101.1)	MIL-DTL-17D/78A RG-217/U	A, B, D, G



Manhattan™ Coaxial Cable



93-Ohm Coaxial Cables

RG-62A/U, RG-22B/U Coaxial Cables

Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9062A	22 (0.32)	Solid	BCW	Semisolid PE	0.146 (3.71)	BC Braid, 95%	Black Type IIA PVC	0.242 (6.15)
9062AC	22 (0.32)	Solid	BCW	Semisolid PE	0.146 (3.71)	BC Braid, 95%	Black Type IIA PVC*	0.242 (6.15)
M4276	22 (0.32)	Solid	BCW	Semisolid PE	0.146 (3.71)	BC Braid, 95%	Black Type IIA PVC	0.239 (6.07)
M44276	22 (0.32)	Solid	BCW	Semisolid FEP	0.142 (3.61)	BC Braid, 94%	White Plenum PVC	0.202 (5.13)
M44276F	22 (0.32)	Solid	BCW	Foam FEP	0.146 (3.71)	BC Braid, 94%	White Plenum PVC	0.204 (5.18)

*Also available in white, green, blue, orange, yellow, and slate.



95-Ohm Coaxial Cables

RG-180B/U Coaxial, RG-22B/U Twinax Cables

Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9180B	30 (0.05)	7/38 (7 x 0.10)	SCW	PTFE	0.102 (2.59)	SPC Braid, 91%	Natural Tan FEP	0.141 (3.58)
M4203	18 (0.87)	7/0.0152 (7 x 0.39)	BC*	PE	0.090 (2.85)	Dbl TC Braid, 95%	Black Type IIA PVC	0.420 (10.67)

*For identification, one conductor includes a single tinned copper strand.



Manhattan™ Coaxial Cable

93-Ohm Coaxial Cables					
RG-62A/U, RG-22B/U Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9062A	93	83	13.2 (43.3)	UL AWM 1478 MIL-DTL-17/30B RG-62A/U	A, B, D, E, F
9062AC	93	83	13.5 (44.3)	UL AWM 1478 UL CL2 CSA CMH MIL-DTL-17/30B RG-62A/U	A, B, D, E, F
M4276	93	84	13.5 (44.3)	UL AWM 1478 UL CL2 UL CM CSA CM MIL-DTL-17/RG-62A/U Type	A, B, D, G
M44276	93	85	12.8 (42)	UL CMP CSA CMP MIL-DTL-17/RG-62A/U Type	A, B, D, G
M44276F	93	85	12.5 (41)	UL CMP CSA CMP MIL-DTL-17/RG-62U Type	A, B, D, G

95-Ohm Coaxial Cables					
RG-180B/U Coaxial, RG-22B/U Twinax Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9180B	95	70	15.4 (50.5)	MIL-DTL-17/RG-180B/U	A, B, D, G
M4203	95	66	16 (52.5)	UL AWM 2498 MIL-DTL-17/RG-22B/U Type	A, B, D, G



Manhattan™ Coaxial Cable



Twinax Cables								
78-Ohm Twinax Cables								
Part No.	Center Conductor			Dielectric		Shield Material, Coverage	Jacket	
	AWG (mm ²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9888C	22 (0.35)	7/30 (7 x 0.25)	TC	White and Blue HDPE	0.056 (1.42)	TC Braid, 85%	Apple Smoke Slate PVC	0.184 (4.67)
9108	20 (0.56)	7/28 (7 x 0.32)	TC	Blue and Clear FEP	0.074 (1.88)	TC Braid, 95%	Blue FEP	0.198 (5.03)
M4154	20 (0.56)	7/28 (7 x 0.32)	TC	Blue and Clear PE	0.076 (1.93)	A/P Tape TC Braid, 55%	Blue PVC	0.238 (6.05)
M4220	20 (0.56)	7/28 (7 x 0.32)	TC*	Natural PE	0.079 (2.01)	TC Braid, 85%	Black Type II PVC	0.235 (5.97)

*For identification, one conductor includes a bare copper strand Type IIA.

Twinax Cables								
100-Ohm Twinax Cables								
Part No.	Center Conductor			Dielectric		Shield Material, Coverage	Jacket	
	AWG (mm ²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9109	20 (0.56)	7/28 (7 x 0.32)	BC TC	FEP	0.072 (1.83)	TC Braid, 95%	Slate PVDF	0.252 (6.40)
9817	20 (0.56)	7/28 (7 x 0.32)	BC TC	PE	0.083 (2.11)	TC Braid, 85%	Black PVC	0.330 (8.38)
M4271	20 (0.56)	7/28 (7 x 0.32)	BC TC	PE	0.083 (2.11)	A/P/A Tape TC Braid, 85%	Black PVC	0.330 (8.38)



Twinax Cables								
124- and 150-Ohm Twinax Cables								
Part No.	Center Conductor			Dielectric		Shield Material, Coverage	Jacket	
	AWG (mm ²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9823	22 (0.38)	19/34 (19 x 0.16)	TC	Black and Yellow Foam PE	0.120 (3.05)	A/P/A Tape	Black PVC	0.329 (8.36)
M4158	16 (1.31)	Solid	BC	Blue and Clear Foam PE	0.161 (4.09)	A/P/A Tape TC Braid, 90%	Black PVC	0.440 (11.18)



Manhattan™ Coaxial Cable

Twinax Cables					
78-Ohm Twinax Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9888C	78	66	19.7 (64.6)	UL AWM 2726 UL CM CSA CMG FT4	D, E
9108	78	69.5	18.4 (60.4)	UL CMP CSA CMP	B, D
M4154	78	66	19.7 (64.6)	UL AWM 2464 UL CM CSA CM	A, B, D, G
M4220	78	66	19.7 (64.6)	MIL-DTL-17/RG-108 Type	A, B, D, G

Twinax Cables					
100-Ohm Twinax Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9109	100	69	13.3 (43.6)	UL CMP UL CL2P CSA CMP	D
9817	100	66	14.5 (47.6)	UL AWM 2498	A, B, D
M4271	100	66	14.5 (47.6)	UL CMG UL CL2 CSA CMG	A, B, D, G

Twinax Cables					
124- and 150-Ohm Twinax Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9823	150	78	8.8 (28.9)	UL AWM 2668	A, B, D, G
M4158	124	78	10.9 (35.8)	UL AWM 2448 UL CMX CSA CMX	A, B, D, G



Manhattan™ Coaxial Cable



Miniature Coaxial Cables								
Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
M4243	30 (0.05)	7/38 (7 x 0.10)	TC	Foam HDPE	0.058 (1.47)	TC Braid, 89%	Black PVC	0.097 (2.46)
M4242	28 (0.08)	Solid	TC	PP	0.023 (0.58)	TC Braid, 90%	Black PVC	0.054 (1.37)
M4244	27 (0.11)	7/35 (7 x 0.142)	BCW	PE	0.100 (2.54)	TC Braid, 93%	Black PVC	0.150 (3.81)



Manhattan™ Coaxial Cable

Miniature Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
M4243	75	78	17.3 (56.8)	UL AWM 1375	A, B, D, G
M4242	32	66	55.2 (181.1)	UL CMH CSA CMH	A, B, D, G
M4244	75	66	20.5 (67.3)	UL AWM 1354	A, B, D, G



Manhattan™ Coaxial Cable



75-Ohm Video Cable								
RG-59/U, RG-59B/U Coaxial Cables								
Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9059B	23 (0.26)	Solid	BCW	PE	0.146 (3.71)	BC Braid, 94%	Black Type IIA PVC	0.242 (6.15)
9159	23 (0.26)	Solid	BCW	FEP	0.132 (3.35)	BC Braid, 95%	Black PVDF	0.190 (4.83)
9810	23 (0.26)	Solid	BC	PE	0.146 (3.71)	A/P/A Tape TC Braid, 95%	Black Type IIIA PE	0.220 (5.59)
M4223	23 (0.26)	Solid	BCW	PE	0.146 (3.71)	BC Braid, 94%	Black Type IIA PVC	0.241 (6.12)
9059	22 (0.32)	Solid	BCW	PE	0.146 (3.71)	BC Braid, 95%	Black, White, Slate Type I PVC	0.242 (6.15)
9059C	22 (0.32)	Solid	BCW	PE	0.146 (3.71)	BC Braid, 95%	Black, Red, Blue, Green, Slate Type I PVC	0.242 (6.15)
9830	22 (0.32)	Solid	BCW	PE	0.146 (3.71)	BC Braid, 85%	Black Type I PVC	0.242 (6.15)
M4212	22 (0.32)	Solid	BCW	Foam PE	0.146 (3.71)	BC Braid, 85%	Black Type I PVC	0.242 (6.15)
M4237	22 (0.35)	7/30 (7 x 0.25)	BC	Foam PE	0.146 (3.71)	BC Braid, 95%	Black Type I PVC	0.240 (6.10)
M44212F	20 (0.52)	Solid	BCW	Foam FEP	0.140 (3.56)	A/P/A Tape TC Braid, 94%	White Plenum PVC	0.202 (5.13)
9102	20 (0.52)	Solid	BCW	Foam FEP	0.140 (3.56)	A/P/A Tape TC Braid, 94%	Black PVDF	0.212 (5.38)



Manhattan™ Coaxial Cable

75-Ohm Video Cable					
RG-59/U, RG-59B/U Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9059B	75	66	20.5 (67.3)	UL CL2X CSA CMH FT1 MIL-DTL-17D/29B RG-59B/U	A, B, C, D, E
9159	75	69.5	19.5 (64)	UL CL2P UL CMP CSA CMP FT6 MIL-DTL-17/RG-59B/U Type	D
9810	75	66	21 (68.9)	MIL-DTL-17/RG-59/U Type	A, D
M4223	75	66	20.5 (67.3)	UL AWM 1354 UL CMX CSA CMX MIL-DTL-17D/29B RG-59B/U	A, B, D
9059	73	66	21 (68.9)	UL AWM 1354 JAN-C-17A/RG-59/U	A, B, D
9059C	73	66	21 (68.9)	UL AWM 1354 UL CL2 CSA CMG FT4 JAN-C-17A /RG-59/U	A, B, C, D, E
9830	75	66	21.5 (70.5)	UL AWM 1354 UL CMX CSA CMX JAN-C-17A/RG-59/U	A, B, D
M4212	80	78	16.3 (53.5)	UL AWM 1354 UL CM CSA CM JAN-C-17A/RG-59/U	A, B, D
M4237	75	78	17.3 (56.8)	UL AWM 1354 UL CM CSA CM MIL-DTL-17/RG-59/U Type	A, B, D
M44212F	75	82	16.5 (54.1)	UL CMP UL CATVP CSA CMP FT6 MIL-DTL-17/RG-59/U Type	A, B, D, G
9102	75	82	16.5 (54.1)	UL CMP UL CL2P CSA CMP FT6 MIL-DTL-17/RG-59U Type	B, D



Manhattan™ Coaxial Cable



75-Ohm Video Cable								
RG-6U Type, RG-6A/U Type								
Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm ²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
M4204	21 (0.41)	Solid	BCW	PE	0.185 (4.70)	Dbl BC Braid, 95%	Black PE	0.332 (8.43)
9104	18 (0.82)	Solid	BCW	Foam FEP	0.170 (4.32)	A/P Tape TC Braid, 95%	Black PVDF	0.232 (5.89)
M4182	18 (0.82)	Solid	BC	Foam PE	0.180 (4.57)	A/P/A Tape TC Braid, 60%	Black Type I PVC	0.270 (6.86)



75-Ohm Video Cable								
RG-11/U, RG-11/U Type, RG-11A/U								
Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm ²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9011A	18 (0.89)	7/26 (7 x 0.40)	TC	PE	0.285 (7.24)	BC Braid, 95%	Black Type IIA PVC	0.405 (10.29)
M4207	18 (0.89)	7/26 (7 x 0.40)	TC	PE	0.285 (7.24)	BC Braid, 95%	Black Type I PVC	0.405 (10.29)
9105	14 (2.08)	Solid	BC	Foam FEP	0.274 (6.96)	A/P/A Tape TC Braid, 60%	Black FEP	0.346 (8.79)
M4208	14 (2.08)	Solid	BC	Foam PE	0.285 (7.24)	BC Braid, 95%	Black PE	0.405 (10.29)



Manhattan™ Coaxial Cable

75-Ohm Video Cable					
RG-6U Type, RG-6A/U Type					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
M4204	75	66	20.5 (67.3)	MIL-DTL-17/RG-6A/U Type	
9104	75	82	16.5 (54.1)	UL CMP UL CATVP CSA CMP FT6 MIL-DTL-17/RG-6U Type	B, D
M4182	75	82	16.2 (53.1)	UL AWM 1354 UL CM CSA CM MIL-DTL-17/ RG 6/U Type	A, B, D

75-Ohm Video Cable					
RG-11/U, RG-11/U Type, RG-11A/U					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9011A	75	66	20.5 (67.3)	UL CL2X CSA CMH FT1 MIL-DTL-17D/6B RG 11A/U	A, B, D
M4207	75	66	20.5 (67.3)	UL CM CSA CM JAN-C-17A/ RG 11/U	A, B, D
9105	75	83	16.3 (53.5)	UL CMP UL CL2P UL CATVP CSA CMP FT6 MIL-DTL-17/RG-11/U Type	B, D
M4208	75	84	16.1 (52.8)	MIL-DTL-17/RG-11A/U Type	A, B, D



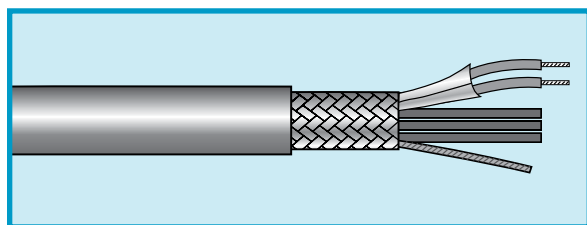
Manhattan™ Coaxial Cable



75-Ohm Video Cables

RG-179B/U and RG-187A/U Coaxial Cables

Part No.	Center Conductor		Dielectric			Shield Material, Coverage	Jacket	
	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)		Material	Dia., In. (mm)
9179B	30 (0.05)	7/38 (7 x 0.10)	SCW	PTFE	0.063 (1.60)	SPC Braid, 93%	Natural Tan FEP	0.100 (2.54)
9187A	30 (0.05)	7/38 (7 x 0.10)	SCW	PTFE	0.063 (1.60)	SPC Braid, 93%	Natural PTFE Tape	0.105 (2.67)



Ethernet Transceiver Cables

Part No.	Pairs			Dielectric			Shield Material, Coverage
	Type	AWG (mm²)	Stranding (mm)	Material	Material	Dia., In. (mm)	
9852C	Data (3)	22 (0.35)	7/30 (7 x 0.25)	TC	Foam HDPE	0.064 (1.63)	A/P (pairs) A/P/A (overall) TC Braid, 95%
	Power (1)	20 (0.56)	7/28 (7 x 0.32)	TC	SR-PVC	0.058 (1.47)	
9853C	Data (3)	20 (0.56)	7/28 (7 x 0.32)	TC	Foam HDPE	0.077 (1.96)	A/P (pairs) A/P (overall) TC Braid, 95%
	Power (1)	20 (0.56)	7/28 (7 x 0.32)	TC	SR-PVC	0.058 (1.47)	
9854C	Data (3)	28 (0.08)	7/36 (7 x 0.12)	TC	PP	0.033 (0.84)	A/P (pairs) A/P/A (overall) TC Braid, 90%
	Power (1)	24 (0.23)	7/32 (7 x 0.20)	TC	SR-PVC	0.044 (1.12)	

Key to Abbreviations

A/P	Aluminum/polyester
A/P/A	Aluminum/polyester/aluminum
BC	Bare copper
BCW	Bare copper-coated steel
FEP	Fluorinated ethylene propylene
HDPE	High-density polyethylene
PE	Polyethylene
PP	Polypropylene
PTFE	Polytetrafluoroethylene
PVC	Polyvinyl chloride
PVDF	Polyvinylidene fluoride
SCW	Silver-coated, copper-coated steel
SPC	Silver-plated copper
SR-PVC	Semirigid PVC
TC	Tinned copper

Color Coding

Conductor	Color Code	
	9852C, 9853C	9854C
Data 1	Green-Blue	White-Gray
Data 2	Yellow-Orange	Yellow-Orange
Data 3	White-Brown	Green-Blue
Power	Blue-Red	Black-Red



Manhattan™ Coaxial Cable

75-Ohm Video Cables					
RG-179B/U and RG-187A/U Coaxial Cables					
Part No.	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)	Specifications	Availability
9179B	75	70	19.5 (64)	MIL-DTL-17/RG-179B/U	A, B, D, G
9187A	75	70	19.5 (64)	MIL-DTL-17/RG-187A/U	A, B, D, G

Ethernet Transceiver Cables							
Part No.	Jacket		Electrical Characteristics—Data Pairs			Specifications	Availability
	Material	Dia., In. (mm)	Nom. Impedance (Ω)	Vp (%)	Capacitance, pF/ft (pF/m)		
9852C	Slate PVC	0.375 (9.53)	78	78	16.7 (54.8)	UL AWM 2919 UL CM CSA CMG FT4	D
9853C	Slate PVC	0.401(10.19)	78	78	16.7 (54.8)	UL CM CSA CMG FT4	D
9854C	Slate PVC	0.250 (6.35)	78	66	19.7 (64.6)	UL AWM 2919 UL CM CSA CMG FT4	D



Manhattan™ High-Temperature Wire and Cable

600 V, Multiconductor, PTFE, PTFE, Braid Shield
High Temperature



NEMA WC27500 Type RC SAE AS22759/11

Operating Temperature

- -55°C to +200°C

Conductor Color Coding

- Per SAE AS22759/11

Materials

- Stranded silver-plated conductors
- PTFE insulation
- Silver-plated braid shield, 85% coverage
- Natural PTFE jacket

Availability

100 ft (30.5 m)
Bulk, cut to length
Spools may contain multiple lengths
(Minimums may apply)

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
Insulation thickness: 0.009 (0.24 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
24RC2S06	2	0.124	3.15	0.010	0.25
24RC3S06	3	0.130	3.30	0.010	0.25
24RC4S06	4	0.142	3.61	0.010	0.25

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.009 (0.24 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
22RC2S06	2	0.136	3.45	0.010	0.25
22RC3S06	3	0.143	3.63	0.010	0.25
22RC4S06	4	0.156	3.96	0.010	0.25

20 AWG (0.61 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
20RC2S06	2	0.154	3.91	0.010	0.25
20RC3S06	3	0.163	4.14	0.010	0.25
20RC4S06	4	0.184	4.67	0.010	0.25

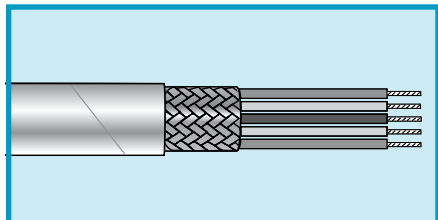
18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
18RC2S06	2	0.180	4.57	0.010	0.25

Manhattan™ High-Temperature Wire and Cable

600 V, Multiconductor, ETFE, ETFE, Braid Shield
High Temperature



NEMA WC27500 Type TE SAE AS22759/16

Operating Temperature

- -55°C to +150°C

Conductor Color Coding

- Per SAE AS22759/16

Materials

- Stranded tinned copper conductors
- ETFE insulation
- Tinned copper braid shield, 85% coverage
- Natural ETFE jacket

Availability

100 ft (30.5 m)

Bulk, cut to length

Spools may contain multiple lengths

(Minimums may apply)

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
Insulation thickness: 0.011 (0.28 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
275002402	2	0.132	3.35	0.010	0.25

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.011 (0.28 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
275002201	1	0.088	2.24	0.010	0.25
275002202	2	0.146	3.71	0.010	0.25
275002203	3	0.154	3.91	0.010	0.25
275002204	4	0.168	4.27	0.010	0.25

20 AWG (0.61 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.011 (0.28 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
275002001	1	0.096	2.44	0.010	0.25
275002002	2	0.162	4.11	0.010	0.25
275002003	3	0.171	4.34	0.010	0.25
275002004	4	0.187	4.75	0.010	0.25

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.012 (0.30 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
275001801	1	0.107	2.72	0.010	0.25
275001802	2	0.182	4.62	0.010	0.25

Manhattan™ High-Temperature Wire and Cable

600 V, Multiconductor, PTFE, PTFE, Braid Shield



MIL-W-16878/4 (Type E)
NEMA HP3

Operating Temperature

- -55°C to +200°C

Conductor Color Coding

- Chart P (page 535)

Materials

- Silver-plated copper conductors
- PTFE insulation
- Silver-plated copper braid shield, 85% coverage
- White PTFE jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
Spools may contain multiple lengths
(Minimums may apply)

NEMA HP3-EXBEE

26 AWG (0.14 mm²)

Stranding: 7/34 (7 x 0.16 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1201	1	0.081	2.06	0.010	0.25
M1202	2	0.124	3.15	0.012	0.30
M1203	3	0.130	3.30	0.012	0.30
M1204	4	0.140	3.56	0.012	0.30

NEMA HP3-EXBEE

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1211	1	0.087	2.21	0.010	0.25
M1212	2	0.136	3.45	0.012	0.30
M1213	3	0.143	3.63	0.012	0.30
M1214	4	0.155	3.94	0.012	0.30

NEMA HP3-EXBFE

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.009 (0.23 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1221	1	0.092	2.34	0.010	0.25
M1222	2	0.146	3.71	0.012	0.30
M1223	3	0.154	3.91	0.012	0.30
M1224	4	0.167	4.24	0.012	0.30

NEMA HP3-EXBGE

20 AWG (0.61 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.009 (0.23 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1231	1	0.100	2.54	0.010	0.25
M1232	2	0.158	4.01	0.012	0.30
M1233*	3	0.171	4.34	0.010	0.25
M1234	4	0.186	4.72	0.012	0.30

*NEMA HP3-EXBJE.

Manhattan™ High-Temperature Wire and Cable

600 V, Multiconductor, PTFE, PTFE, Braid Shield



MIL-W-16878/14 (Type E) NEMA HP3

Operating Temperature

- -55°C to +200°C

Conductor Color Coding

- Chart P (page 535)

Materials

- Silver-plated copper conductors
- PTFE insulation
- Silver-plated copper braid shield, 85% coverage
- White PTFE jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

NEMA HP3-EXBHE

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1241*	1	0.112	2.84	0.010	0.25
M1242	2	0.186	4.72	0.012	0.30
M1243	3	0.197	5.00	0.012	0.30
M1244	4	0.215	5.46	0.012	0.30

*NEMA HP3-EXBGE.

NEMA HP3-EXBJE

16 AWG (1.23 mm²)

Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.012 (0.30 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
M1251	1	0.122	3.10	0.010	0.25
M1252	2	0.206	5.23	0.012	0.30
M1253	3	0.219	5.56	0.012	0.30
M1254	4	0.240	6.10	0.012	0.30

Manhattan™ High-Temperature Wire and Cable

600 V, Multiconductor, PTFE, FEP, Braid Shield



MIL-W-16878/4 (Type E) Components

Operating Temperature

- -55°C to +200°C

Conductor Color Coding

- Chart P (page 535)

Materials

- Silver-plated copper conductors
- PTFE insulation
- Silver-plated copper braid shield, 85% coverage
- White FEP jacket

Availability

100 ft (30.5 m)

500 ft (152 m)

Bulk, cut to length

Spools may contain multiple lengths

(Minimums may apply)

24 AWG (0.24 mm²)

Stranding: 19/36 (19 x 0.13 mm)
Insulation thickness: 0.0095 (0.24 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
72402	2	0.136	3.45	0.012	0.30

22 AWG (0.38 mm²)

Stranding: 19/34 (19 x 0.16 mm)
Insulation thickness: 0.0095 (0.24 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
72203	3	0.154	3.91	0.012	0.30

20 AWG (0.61 mm²)

Stranding: 19/32 (19 x 0.20 mm)
Insulation thickness: 0.0095 (0.24 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
72001	1	0.100	2.54	0.010	0.25

18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
71801	1	0.112	2.84	0.010	0.25
71802	2	0.186	4.72	0.012	0.30

16 AWG (1.23 mm²)

Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.012 (0.30 mm)

Part No.	Conductors	Nominal Diameter		Jacket Thickness	
		Inch	mm	Inch	mm
71602	2	0.206	5.23	0.012	0.30

Manhattan™ Cordsets

125 and 250 V M.A.P. Multiple Application Power Cords
Twin-End Jumper and Power Cords



SJT
UL Standard 817
CSA C22.2 No. 21

Operating Temperature
• -20°C to +60°C

Conductor Color Coding
• Black, white, green (NEC)

Materials

- Stranded bare copper conductors
- PVC insulation
- Black PVC jacket

Availability
25-piece packages
(Minimums may apply)

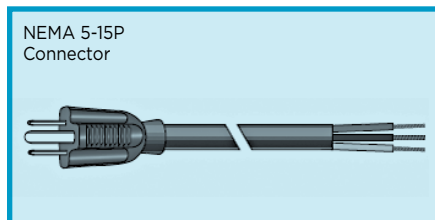
6-ft (1.8 m) Overall Length; Individual Leg Length Is 2 ft (0.6 m)

Part No.		Wire Size		Stranding		Nominal Diameter		Power Rating		
Jumper	Power	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	Volts
468	472	18	0.82	41/34	41 x 0.16	0.300	7.62	1250	10	125
470	474	16	1.32	65/34	65 x 0.16	0.325	8.26	3250	13	250



Manhattan™ Cordsets

125 V Power Cords 3-Conductor



SJ, SJT, SVT
UL 62 and 817
CSA C22.2 No. 21 and 49

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- Black, white, green or green/yellow (NEC)
- Blue, brown, green/yellow (ICC)

Materials

- Stranded bare copper conductors
- PVC or rubber insulation
- Aluminum/polyester foil shield (where specified)
Foil facing inward
22 AWG (0.35 mm²) tinned copper drain wire
- Black PVC, rubber, or neoprene jacket (slate where marked)

Availability

25-piece packages
B suffix = 100-piece packages
(Minimums may apply)

PVC Jacket, PVC Insulation, Unshielded, SJT
Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.		Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
25 pc	100 pc	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
501	501B	6' 7"	2	18	0.82	41/34	41 x 0.16	0.330	8.38	1250	10	ICC
502	502B	9' 10"	3	18	0.82	41/34	41 x 0.16	0.330	8.38	1250	10	ICC
780*	780B*	6' 0"	1.8	18	0.81	16/30	16 x 0.25	0.330 (0.300)**	8.38 (7.62)**	1250	10	NEC
779*	779B*	8' 0"	2.4	18	0.81	16/30	16 x 0.25	0.300 (0.330) [†]	7.62 (8.38) [†]	1250	10	NEC
503	—	6' 7"	2	16	1.32	65/34	65 x 0.16	0.331	8.41	1625	13	ICC
505	505B	6' 7"	2	14	2.08	41/30	41 x 0.25	0.380	9.65	1875	15	ICC
506	—	9' 10"	3	14	2.08	41/30	41 x 0.25	0.380	9.65	1875	15	ICC

*Slate jacket

**Diameter for part no. 780B

[†]Diameter for part no. 779B

PVC Jacket, PVC Insulation, Shielded, SVT
Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.		Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
25 pc	100 pc	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
777*	777B*	6' 0"	1.8	18	0.82	41/34	41 x 0.16	0.250	6.35	1250	10	NEC
787*	787B*	8' 0"	2.4	18	0.82	41/34	41 x 0.16	0.250	6.35	1250	10	NEC
507F	—	6' 7"	2	18	0.82	41/34	41 x 0.16	0.260	6.60	1250	10	ICC
508F	—	9' 10"	3	18	0.82	41/34	41 x 0.16	0.260	6.60	1250	10	ICC

*Slate jacket



Manhattan™ Cordsets

125 V Power Cords 3-Conductor

NEMA 5-15P
Connector



SJ, SJT, SVT
UL 62 and 817
CSA C22.2 No. 21 and 49

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- Black, white, green or green/yellow (NEC)
- Blue, brown, green/yellow (ICC)

Materials

- Stranded bare copper conductors
- PVC or rubber insulation
- Aluminum/polyester foil shield (where specified)
Foil facing inward
22 AWG (0.35 mm²) tinned copper drain wire
- Black PVC, rubber, or neoprene jacket (slate where marked)

Availability

25-piece packages
(Minimums may apply)

Rubber Jacket, Rubber Insulation, Unshielded, SJ
Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
615	6' 0"	1.8	18	0.81	16/30	16 x 0.25	0.320	7.13	1250	10	NEC
616	9' 0"	2.7	18	0.81	16/30	16 x 0.25	0.320	8.13	1250	10	NEC
778	8' 0"	2.4	18	0.81	16/30	16 x 0.25	0.320	8.13	1250	10	NEC
782	12' 0"	3.7	18	0.81	16/30	16 x 0.25	0.320	8.13	1250	10	NEC
783	9' 0"	2.7	16	1.31	26/30	26 x 0.25	0.340	8.64	1625	13	NEC
784	12' 0"	3.7	16	1.31	26/30	26 x 0.25	0.340	8.64	1625	13	NEC
788	9' 0"	2.7	14	2.08	41/30	41 x 0.25	0.380	9.65	1875	15	NEC
789	15' 0"	4.5	14	2.08	41/30	41 x 0.25	0.380	9.65	1875	15	NEC

Neoprene Jacket, Rubber Insulation, Unshielded, SJO
Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
781	8' 0"	2.4	18	0.81	16/30	16 x 0.25	0.330	8.38	1250	10	NEC

Rubber Jacket, Rubber Insulation, Unshielded, SV
Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
775	6' 0"	1.8	18	0.82	41/34	41 x 0.16	0.260	6.60	1250	10	NEC
776	8' 0"	2.4	18	0.82	41/34	41 x 0.16	0.260	6.60	1250	10	NEC



Manhattan™ Cordsets

125 V Electronic Line Cords

3-Conductor



SJT, SVT
UL 62 and 817
CSA C22.2 No. 21 and 49

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- Blue, brown, green/yellow (ICC)

Materials

- Stranded bare copper conductors
- PVC insulation

- Aluminum/polyester foil shield (where specified)
Foil facing inward
20 AWG (0.56 mm²) tinned copper drain wire
- PVC jacket, black (slate where marked)

Availability

25-piece packages
 (Minimums may apply)

PVC, Unshielded, Type SJT

Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps
511	6' 7"	2	18	0.82	41/34	41 x 0.16	0.300	7.62	1250	10
512	9' 10"	3	18	0.82	41/34	41 x 0.16	0.300	7.72	1250	10
513	6' 7"	2	16	1.32	65/34	65 x 0.16	0.331	8.41	1625	13
514	9' 10"	3	16	1.32	65/34	65 x 0.16	0.331	8.41	1625	13

PVC, Shielded, Right Angle, Type SJT

Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps
521F	6' 7"	2	14	2.08	41/30	41 x 0.25	0.380	9.65	1825	15

PVC, Shielded, Type SVT

Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps
523	7' 5"	2.3	18	0.82	41/34	41 x 0.16	0.250	6.35	1250	10

Manhattan™ Cordsets

125 V Jumper Cords

NEMA and IEC Connectors



Jumper Cords

SJ, SJT, SVT, SPT-1
UL 62 and 817
CSA C22.2 No. 21 and 49

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- Blue, brown, green/yellow (ICC)
- Black, white, green (NEC)

Materials

- Stranded bare copper conductors
- PVC or rubber insulation

- Aluminum/polyester foil shield (where specified)
Foil facing inward
22 AWG (0.35 mm²) tinned copper drain wire
- Black PVC or rubber jacket (Part 601B available in white or slate jacket)

Availability

25-piece packages
 (Minimums may apply)

PVC, Unshielded, Type SJT

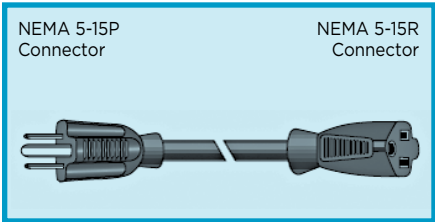
Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
551	3' 3"	1	18	0.82	41/34	41 x 0.16	0.300	7.62	1250	10	ICC

PVC, Shielded, Type SVT

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
560F	3' 3"	1	18	0.82	41/34	41 x 0.16	0.260	6.60	1250	10	ICC

Manhattan™ Cordsets

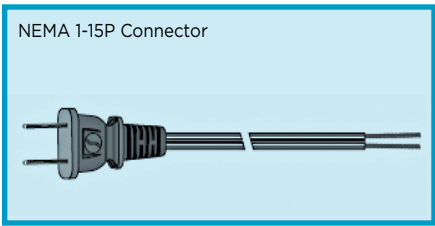
125 V Jumper Cords NEMA and IEC Connectors



Extension Cords

Rubber, Unshielded, Type SJ

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
633	10' 0"	3.1	16	1.32	26/30	26 x 0.25	0.340	8.64	1625	13	NEC
640	15' 0"	4.6	16	1.32	26/30	26 x 0.25	0.340	8.64	1625	13	NEC



Parallel Lamp Cords

PVC, Unshielded, Type SPT-1

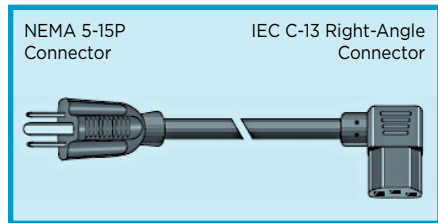
Leads: Conductors Split 1" (25.4 mm) and Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Dimension		Power Rating	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps
601B*	6' 0"	1.8	18	0.82	41/34	41 x 0.16	0.110 x 0.220	2.79 x 5.69	1250	10

*100-piece packages.

Manhattan™ Cordsets

125 V Detachable Power Supply Cords 3-Conductor



SJT, SVT
UL 62 and 817
CSA C22.2 No. 21 and 49

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- Blue, brown, green/yellow (ICC)
- Black, white, green or green/yellow (NEC)

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield
Foil facing inward
Tinned copper drain wire
(see tables for size)
- Black PVC jacket

Availability

25-piece packages
B suffix = 100-piece packages
(Minimums may apply)

Unshielded, Straight, Types SVT and SJT

Part No.		Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
25 pc	100 pc	Ft	m	AWG	mm²	AWG	mm	Inch	mm	Watts	Amps	
Type SVT												
545	545B	7' 5"	2.3	18	0.82	41/34	41 x 0.16	0.250	6.35	1250	10	NEC
535	535B	7' 5"	2.3	18	0.82	41/34	41 x 0.16	0.250	6.35	1250	10	NEC
Type SJT												
531	531B	6' 7"	2	18	0.82	41/34	41 x 0.16	0.330	8.38	1250	10	NEC
532	532B	9' 10"	3	18	0.82	41/34	41 x 0.16	0.330	8.38	1250	10	NEC
533	—	6' 7"	2	16	1.32	65/34	65 x 0.16	0.350	8.89	1625	13	ICC
546	—	7' 5"	2.3	16	1.32	65/34	65 x 0.16	0.350	8.89	1625	13	ICC
534	534B	9' 10"	3	16	1.32	65/34	65 x 0.16	0.331	8.41	1625	13	NEC

Shielded, Straight, Types SVT and SJT

Part No.	Cord Length		Wire Size		Stranding		Drain Wire*	Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm²	AWG	mm		Inch	mm	Watts	Amps	
Type SVT												
547F	6' 7"	2	18	0.82	41/34	41 x 0.16	A	0.260	6.60	1250	10	ICC
548F	9' 10"	3	18	0.82	41/34	41 x 0.16	A	0.260	6.60	1250	10	ICC
Type SJT												
531F	6' 7"	2	18	0.82	41/34	41 x 0.16	B	0.317	8.05	1250	10	ICC
532F	9' 10"	3	18	0.82	41/34	41 x 0.16	B	0.317	8.05	1250	10	ICC
536F	9' 10"	3	14	2.08	41/30	41 x 0.25	C	0.400	10.16	1875	15	ICC

*Drain Wire:

A = 22 AWG (mm²), 7/30 (7 x 0.25 mm) stranding.

B = 18 AWG (0.82 mm²), 41/34 (41 x 0.16 mm) stranding.

C = 14 AWG (2.08 mm²), 41/30 (41 x 0.25 mm) stranding.



Manhattan™ Cordsets

125 V Detachable Power Supply Cords 3-Conductor

Unshielded, Right Angle, Type SJT

Part No.		Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
25 pc	100 pc	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
537	537B	6' 7"	2	18	0.82	41/34	41 x 0.16	0.330	8.38	1250	10	ICC
538		9' 10"	3	18	0.82	41/34	41 x 0.16	0.330	8.38	1250	10	ICC
540	—	9' 10"	3	16	1.32	65/34	65 x 0.16	0.331	8.41	1625	13	ICC

Shielded, Right Angle, Type SVT

Part No.	Cord Length		Wire Size		Stranding		Drain Wire*	Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm		Inch	mm	Watts	Amps	
550F	9' 10"	3	18	0.82	41/34	41 x 0.16	A	0.260	6.60	1250	10	ICC

*Drain Wire:

A = 22 AWG (mm²), 7/30 (7 x 0.25 mm) stranding.



Unshielded, Straight, Type SVT

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating		Color Code
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	
543*	7' 5"	2.3	18	0.82	41/34	41 x 0.16	0.240	6.09	1250	7	ICC

*Also available with slate jacket.

Manhattan™ Cordsets

125 V Medical-Grade Power Supply Cordsets 3-Conductor

SJT

UL 62 and 817

CSA C22.2 No. 21 and 49

CSA FT2

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- Black, white, green

Materials

- Stranded bare copper conductors
- PVC insulation
- Black or slate PVC jacket

Availability

25-piece packages
(Minimums may apply)



Leads: Jacket Stripped 2" (50 mm). Leads Stripped 5/8" (16 mm)

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Ratings		Colors	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	Jacket	Plug
801	10' 0"	3.0	18	1.20	43/34	43 x 0.16	0.31	7.8	1250	10	Black	Clear
802	10' 0"	3.0	18	1.20	43/34	43 x 0.16	0.31	7.8	1250	10	Slate	Slate

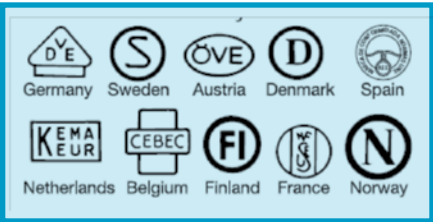


Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Ratings		Colors		
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps	Jacket	Plug	Recept.
820	10' 0"	3.0	18	1.20	43/34	43 x 0.16	0.31	7.8	1250	10	Black	Clear	Black
821	10' 0"	3.0	18	1.20	43/34	43 x 0.16	0.31	7.8	1250	10	Slate	Slate	Slate
822	10' 0"	3.0	18	1.20	43/34	43 x 0.16	0.31	7.8	1250	10	Slate	Clear	Clear
830	10' 0"	3.0	16	1.50	68/34	68 x 0.16	0.33	8.5	1625	13	Black	Clear	Black
831	10' 0"	3.0	16	1.50	68/34	68 x 0.16	0.33	8.5	1625	13	Slate	Slate	Slate
832	10' 0"	3.0	16	1.50	68/34	68 x 0.16	0.33	8.5	1625	13	Slate	Clear	Clear



Manhattan™ Cordsets

250 V Internationally Approved Power Supply Cordsets



CE
ENEC-11
T-Mark
JET
UL
CSA
C-Tick

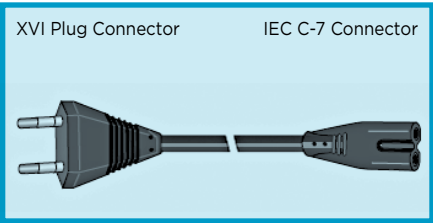
Operating Temperature

- 15°C to +70°C

- Conductor Color Coding
- Blue, brown, yellow/green
- Materials
- Stranded bare copper conductors
 - PVC insulation
 - Black PVC jacket

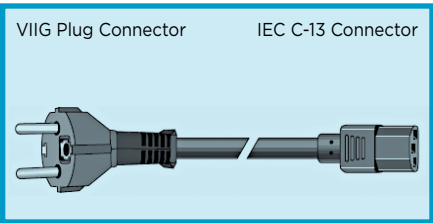
Availability

25-piece packages
(Minimums may apply)



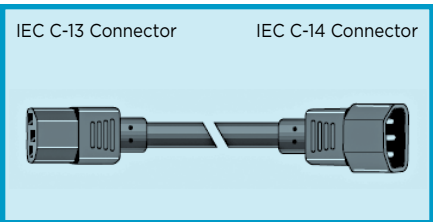
2-Conductor Unshielded. Cordage Type HO3VVH2F2XO.75

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps
952	5' 6"	1.7	18	0.75	23/32	23 x 0.20	0.133 x 0.22	4.00 x 5.60	625	2.5



3-Conductor Unshielded. Cordage Type HO5VVF3G1.00

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps
953	8' 2"	2.5	16	1.00	31/32	31 x 0.20	0.268	6.81	2500	2.5



3-Conductor Unshielded. Cordage Type HARSJT3X18AWG

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	mm	Inch	mm	Watts	Amps
953	8' 2"	2.5	18	1.00	56/34	56 x 0.15	0.314	8.0	2500	10



Manhattan™ Cordsets

250 V Power Supply Cords, 3-Conductor Australia

SAA

Operating Temperature

- -15°C to +70°C

Conductor Color Coding

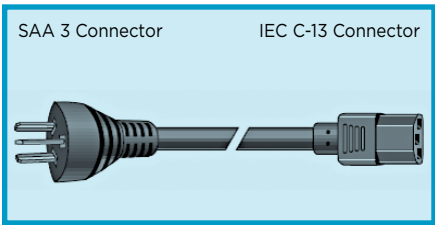
- Blue, brown, yellow/green

Materials

- Stranded bare copper conductors
- PVC insulation
- Black PVC jacket
- Cord Type: HO5VVF3G1.00

Availability

25-piece packages
(Minimums may apply)



Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	Mm	Inch	mm	Watts	Amps
910	8.2	2.5	16	1.00	31/32	31 x 0.20	0.270	6.80	2500	10



Leads: Jacket Stripped 30 mm (1.2"). Leads Stripped 6 mm (0.24")

Part No.	Cord Length		Wire Size		Stranding		Nominal Diameter		Power Rating	
	Ft	m	AWG	mm ²	AWG	Mm	Inch	mm	Watts	Amps
911	8.2	2.5	16	1.00	31/32	31 x 0.20	0.270	6.80	2500	10



Manhattan™ Cordsets

300 V and 600 V Conductor Cordage CPE



SVO, SJOW, SOOW
UL 62
CSA C22.2 No. 49
CSA FT2

Operating Temperature

- -40°C to +90°C

Conductor Color Coding

- Black, white (2 conductors)
- Black, white, green (3 conductors)
- Black, white, green, red (4 conductors)

Materials

- Stranded bare copper conductors
- Rubber insulation
- Black chlorinated polyethylene (CPE) jacket

Availability

250 ft (76.2 m)
(Minimums may apply)

CPE Jacket, 2-Conductor Cords, Types SVO, SJOW, and SOOW

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Cable Dimension	
	AWG	mm ²	AWG	Mm	Inch	mm	Inch	mm	Inch	mm
Type SVO, 300 V										
1931	18	0.82	41/34	41 x 0.16	0.017	0.43	0.034	0.86	0.236	5.99
Type SJOW, 300 V										
1932	18	0.81	16/30	16 x 0.25	0.032	0.81	0.034	0.86	0.294	7.47
1933	16	1.32	26/30	26 x 0.25	0.032	0.81	0.034	0.86	0.320	8.13
Type SOOW, 600 V										
1934	18	0.81	16/30	16 x 0.25	0.031	0.79	0.065	1.65	0.356	9.04
1935	16	1.32	26/30	26 x 0.25	0.031	0.79	0.065	1.65	0.382	9.70
1936	14	2.08	41/30	41 x 0.25	0.048	1.22	0.085	2.16	0.516	13.11
1937	12	3.29	65/30	65 x 0.25	0.050	1.27	0.100	2.54	0.592	15.04

CPE Jacket, 3-Conductor Cords, Types SJOW and SOOW

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Cable Dimension	
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm
Type SJOW, 300 V										
1932/3	18	0.81	16/30	16 x 0.25	0.032	0.81	0.034	0.86	0.330	7.85
1933/3	16	1.32	26/30	26 x 0.25	0.032	0.81	0.034	0.86	0.358	8.64
Type SOOW, 600 V										
1934/3	18	0.81	16/30	16 x 0.25	0.031	0.79	0.065	1.65	0.373	9.47
1935/3	16	1.32	26/30	26 x 0.25	0.031	0.79	0.065	1.65	0.401	10.19
1936/3	14	1.08	41/30	41 x 0.25	0.048	1.22	0.085	2.16	0.543	13.79
1937/3	12	3.29	65/30	65 x 0.25	0.050	1.27	0.100	2.54	0.623	15.82
1938/3	10	5.32	105/30	105 x 0.25	0.050	1.27	0.100	2.54	0.642	16.31

CPE Jacket, 4-Conductor Cords, Type SOOW, 600 V

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Cable Dimension	
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm
1934/4	18	0.81	16/30	16 x 0.25	0.031	0.79	0.065	1.65	0.400	10.16
1935/4	16	1.32	26/30	26 x 0.25	0.031	0.79	0.065	1.65	0.437	11.10
1936/4	14	2.08	41/30	41 x 0.25	0.048	1.22	0.085	2.16	0.589	14.96
1937/4	12	3.29	65/30	65 x 0.25	0.050	1.27	0.100	2.54	0.674	17.12
1938/4	10	5.32	105/30	105 x 0.25	0.050	1.27	0.100	2.54	0.735	18.67



Manhattan™ Cordsets

300 V 3-Conductor Cordage PVC



SJT, SVT
UL 62
CSA C22.2 No. 49

Operating Temperature

- -30°C to +105°C

Conductor Color Coding

- Black, white, green/yellow (NEC)
- Blue, brown, green/yellow (IEC 60446)

Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield
Foil facing inward
Tinned copper drain wire one even AWG size smaller than conductor
- Black or slate PVC jacket

Availability

250 ft (76.2 m)
(Minimums may apply)

3-Conductor Cords (Unshielded)

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Cable Dimension		Color Code
	AWG	mm²	AWG	mm	Inch	mm	Inch	mm	Inch	mm	
Type SJT											
1952/3T	18	0.82	41/34	41 x 0.16	0.032	0.81	0.032	0.81	0.309	7.85	NEC
1953/3T	16	1.32	65/34	65 x 0.16	0.032	0.81	0.032	0.81	0.335	8.51	NEC
Type SVT											
1951/3T	18	0.82	41/34	41 x 0.16	0.016	0.41	0.032	0.81	0.241	6.12	NEC
Type SJT											
1941/3*	18	0.82	41/34	41 x 0.16	0.032	0.81	0.032	0.81	0.310	7.87	IEC
1942/3*	16	1.32	65/34	65 x 0.16	0.032	0.81	0.032	0.81	0.336	8.53	IEC
1943/3*	14	2.08	41/30	41 x 0.25	0.032	0.81	0.032	0.81	0.368	9.35	IEC

*Black jacket only.

3-Conductor Cords (Foil Shield)

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Cable Dimension		Color Code
	AWG	mm²	AWG	mm	Inch	mm	Inch	mm	Inch	mm	
Type SJT											
1941/3F*	18	0.82	41/34	41 x 0.16	0.032	0.81	0.032	0.81	0.314	7.98	IEC
1942/3F*	16	1.32	65/34	65 x 0.16	0.032	0.81	0.032	0.81	0.340	8.64	IEC
1943/3F*	14	2.08	41/30	41 x 0.25	0.032	0.81	0.032	0.81	0.372	9.45	IEC

*Black jacket only.

Manhattan™ Cordsets

300 V 3-Conductor Cordage

Rubber



SJ, SV
UL 62
CSA C22.2 No. 49

Operating Temperature
• -30°C to +90°C

Conductor Color Coding
• Black, white, green

Materials
• Stranded bare copper conductors
• Rubber insulation
• Black chlorinated polyethylene jacket

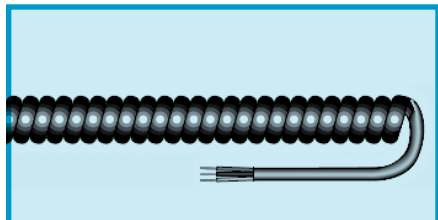
Availability
250 ft (76.2 m)
(Minimums may apply)

3-Conductor Cords (Unshielded)

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Cable Dimension	
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm
Type SJ										
1952/3	18	0.81	16/30	16 x 0.25	0.032	0.81	0.034	0.86	0.309	7.85
1953/3	16	1.32	26/30	26 x 0.25	0.032	0.81	0.034	0.86	0.340	8.64
Type SV										
1951/3	18	0.82	41/34	41 x 0.16	0.017	0.43	0.036	0.91	0.256	6.50

Manhattan™ Cordsets

300 V Retractable Communications Cords



UL AWM 2464

Operating Temperature

- -20°C to +80°C

Conductor Color Coding

- See table

Materials

- Stranded tinned copper conductors
- Polypropylene insulation
- Black PVC Jacket

Availability

1-piece packages

(Minimums may apply)

Unshielded, 1 A

Cord Length: 1 ft (0.30 m) Retracted, 5 ft (1.5 m) Extended

23 AWG (0.27 mm²)

Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness: 0.012 (0.30 mm)
Lead length, each end: 12" (304 mm)

Part No.	Conductors	Coil Diameter		Jacket Diameter	
		Inch	mm	Inch	mm
702R	2	0.688	17.48	0.190	4.83
703R	3	0.688	17.48	0.200	5.08
704R	4	0.750	19.05	0.220	5.59
705R	5	0.875	22.23	0.230	5.84
706R	6	0.875	22.23	0.230	5.84
707R	7	0.875	22.23	0.250	6.35

Unshielded, 1 A

Cord Length: 2 ft (0.61 m) Retracted, 10 ft (3.0 m) Extended

23 AWG (0.27 mm²)

Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness: 0.012 (0.30 mm)
Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Jacket Diameter	
		Inch	mm	Inch	mm
702/2R	2	0.625	15.88	0.180	4.57
703/2R	3	0.688	17.48	0.190	4.83
704/2R	4	0.688	17.48	0.200	5.08
705/2R	5	0.750	19.05	0.215	5.46
706/2R	6	0.875	22.23	0.230	5.84
707/2R	7	0.875	22.23	0.230	5.84

Unshielded, 1 A

Cord Length: 3 ft (0.91 m) Retracted, 15 ft (4.5 m) Extended

23 AWG (0.27 mm²)

Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness: 0.012 (0.30 mm)
Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Jacket Diameter	
		Inch	mm	Inch	mm
704/3R	4	0.688	17.48	0.200	5.08
705/3R	5	0.750	19.05	0.210	5.33
706/3R	6	0.875	22.23	0.230	5.84
707/3R	7	0.875	22.23	0.230	5.84



Manhattan™ Cordsets

300 V Retractable Communications Cords



UL AWM 2464

Operating Temperature

- -20°C to +80°C

Conductor Color Coding

- See table

Materials

- Stranded tinned copper conductors
- Polypropylene insulation
- Black PVC Jacket

Availability

1-piece packages
(Minimums may apply)

Unshielded, 1 A

Cord Length: 4 ft (1.2 m) Retracted, 20 ft (6.1 m) Extended

23 AWG (0.27 mm²)

Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness: 0.012 (0.30 mm)
Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Jacket Diameter	
		Inch	mm	Inch	mm
703/4R	3	0.688	17.48	0.190	4.83
704/4R	4	0.688	17.48	0.200	5.08
705/4R	5	0.750	19.05	0.220	5.59
706/4R	6	0.875	22.23	0.230	5.84
707/4R	7	0.875	22.23	0.230	5.84
708/4R	8	0.875	22.23	0.250	6.35
710/4R	10	0.938	23.83	0.280	7.11
712/4R	12	1.000	25.40	0.290	7.37
715/4R	15	1.063	27.00	0.310	7.87

Shielded: Spiral Wrapped Tinned Copper, 1A

Cord Length: 2 ft (0.61 m) Retracted, 10 ft (3.0 m) Extended

23 AWG (0.27 mm²)

Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness: 0.012 (0.30 mm)
Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Cord Diameter		Shielding
		Inch	mm	Inch	mm	
722/2R	2	0.750	19.05	0.210	5.33	Individual conductors
723/2R	3	0.750	19.05	0.200	5.08	2 unshielded 1 shielded

Conductor Color Coding

1 Black	6 Blue	11 Violet
2 White	7 Yellow	12 Tan
3 Red	8 Brown	13 White/Black
4 Green	9 Slate	14 Red/Black
5 Orange	10 Pink	15 Green/Black

Manhattan™ Cordsets

300 V Retractable Communications Cords



**UL AWM 4182, 4194, 4195,
4196, 4197, 4198**

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- See table

Materials

- Stranded tinned copper conductors
- Rubber insulation
- Black neoprene jacket

Availability

1-piece packages
(Minimums may apply)

Unshielded, 1 A

Cord Length: 2 ft (0.61 m) Retracted, 10 ft (3.0 m) Extended

23 AWG (0.27 mm²)

Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness:
Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Cord Diameter		AWM
		Inch	mm	Inch	mm	
680/2	2	0.750	19.05	0.220	5.59	4194
681/2	3	0.813	20.65	0.220	5.59	4195
682/2	4	0.938	23.83	0.250	6.35	4196
683/2	5	1.063	27.00	0.290	7.37	4197
684/2	6	1.125	28.58	0.310	7.87	4198
685/2	7	1.250	31.75	0.320	8.13	4182

Unshielded, 1 A

Cord Length: 4 ft (1.2 m) Retracted, 20 ft (6.1 m) Extended

23 AWG (0.27 mm²)

Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness:
Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Cord Diameter		AWM
		Inch	mm	Inch	mm	
680/4	2	0.743	18.87	0.215	5.46	4194
681/4	3	0.753	19.13	0.220	5.59	4195
682/4	4	0.875	22.23	0.250	6.35	4196
683/4	5	1.008	25.60	0.285	7.24	4197
684/4	6	1.110	28.19	0.305	7.75	4198
685/4	7	1.140	28.96	0.320	8.13	4182

Conductor Color Coding

1 Black	5 Blue
2 White	6 Yellow
3 Red	7 Brown
4 Green	



Manhattan™ Cordsets

300 V Retractable Communications Cords



SO, SVO, SJO
UL 62
CSA C22.2 No. 49

Operating Temperature

- -20°C to +90°C

Conductor Color Coding

- 1 Black, 2 White, 3 Red, 4 Green

Materials

- Stranded bare copper conductors
- Rubber insulation
- Black rubber jacket

Availability

1-piece packages
 (Minimums may apply)

Types SV and SJO

Cord Length: 1 ft (0.30 m) Retracted, 5 ft (1.5 m) Extended

18 AWG (0.82 mm²)					
Stranding: 41/34 (41 x 0.16 mm) Insulation thickness: 0.015 (0.38 mm) Lead length, each end: 6" (152 mm)					
Part No.	Conductors	Coil Diameter		Cord Diameter	
		Inch	mm	Inch	mm
Type SVO					
725	2	0.895	22.73	0.220	5.59
Type SJO					
727	3	1.263	32.08	0.33	9.4

Type SVO

Cord Length: 2 ft (0.61 m) Retracted, 10 ft (3.0 m) Extended

18 AWG (0.82 mm ²)					
Stranding: 41/34 (41 x 0.16 mm) Insulation thickness: 0.015 (0.38 mm) Lead length, each end: 6" (152 mm)					
Part No.	Conductors	Coil Diameter		Cord Diameter	
		Inch	mm	Inch	mm
760/2	3	1.000	25.40	0.27	7.0

Type SVO

Cord Length: 4 ft (1.2 m) Retracted, 20 ft (6.1 m) Extended

18 AWG (0.82 mm ²)					
Stranding: 41/34 (41 x 0.16 mm) Insulation thickness: 0.015 (0.38 mm) Lead length, each end: 6" (152 mm)					
Part No.	Conductors	Coil Diameter		Cord Diameter	
		Inch	mm	Inch	mm
760/4	3	1.000	25.40	0.27	7.0



Manhattan™ Cordsets

300 V/600 V Retractable Communications Cords



SO, SVO, SJO
UL 62
CSA C22.2 No. 49

Operating Temperature

- -20°C to +90°C

Conductor Color Coding

- 1 Black, 2 White, 3 Red, 4 Green

Materials

- Stranded bare copper conductors
- Rubber insulation
- Black rubber jacket

Availability

1-piece packages
 (Minimums may apply)

Type SJO, 300 V

Cord Length: 4 ft (1.2 m) Retracted, 20 ft (6.1 m) Extended

16 AWG (1.31 mm²)

Stranding: 65/34 (65 x 0.16 mm)
 Insulation thickness: 0.030 (0.76 mm)
 Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Cord Diameter	
		Inch	mm	Inch	mm
665/4	3	1.335	33.91	0.385	9.78

Type SO, 600 V

Cord Length: 2 ft (0.61 m) Retracted, 10 ft (3.0 m) Extended

14 AWG (2.08 mm²)

Stranding: 41/30 (41 x 0.25 mm)
 Insulation thickness: 0.030 (0.76 mm)
 Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Cord Diameter	
		Inch	mm	Inch	mm
674/2	4	2.055	52.20	0.610	15.49

Type SO, 600 V

Cord Length: 4 ft (1.2 m) Retracted, 20 ft (6.1 m) Extended

14 AWG (2.08 mm²)

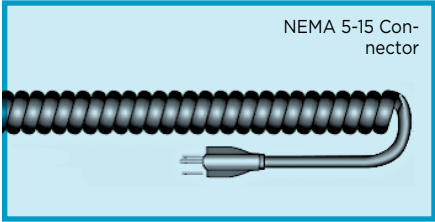
Stranding: 41/30 (41 x 0.25 mm)
 Insulation thickness: 0.030 (0.76 mm)
 Lead length, each end: 6" (152 mm)

Part No.	Conductors	Coil Diameter		Cord Diameter	
		Inch	mm	Inch	mm
674/4	4	2.055	52.20	0.610	15.49



Manhattan™ Cordsets

300 V Retractable Power Cords



SVO, SJO UL 62 and 817

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- 1 Black, 2 White, 3 Green or Green/Yellow

Materials

- Stranded bare copper conductors
- Rubber insulation
- Black neoprene jacket
- Molded NEMA 5-15P male plug, one end

Availability

1-piece packages
(Minimums may apply)

Types SVO and SJO
Cord Length: 1 ft (0.30 m) Retracted, 5 ft (1.5 m) Extended

18 AWG (0.82 mm²)							
Stranding: 41/34 (41 x 0.16 mm) Insulation thickness: 0.015 (0.38 mm) Jacket stripped 1.5" (38.1 mm); insulation stripped 0.5" (12.7 mm)							
Part No.	Conductors	Coil Diameter		Cord Diameter		Power Rating	
		Inch	mm	Inch	mm	Watts	Amps
Type SVO							
654	2	0.875	22.23	0.240	6.10	1250	10
Type SJO							
656	3	1.375	34.93	0.330	8.38	1250	10

Type SJO
Cord Length: 2 ft (0.61 m) Retracted, 10 ft (3.0 m) Extended

16 AWG (1.31 mm²)							
Stranding: 65/34 (65 x 0.16 mm) Insulation thickness: 0.015 (0.38 mm) Jacket stripped 1.5" (38.1 mm); insulation stripped 0.5" (12.7 mm)							
Part No.	Conductors	Coil Diameter		Cord Diameter		Power Rating	
		Inch	mm	Inch	mm	Watts	Amps
659	3	1.333	33.86	0.350	8.89	1625	13



Manhattan™ Cordsets

30 V Miniature Retractable Communications Cords



UL AWM 20013

Operating Temperature

- -20°C to +60°C

Conductor Color Coding

- 1 Black, 2 White, 3 Red, 4 Green

Materials

- Stranded tinned copper conductors
- PVC insulation
- Black PVC Jacket

Availability

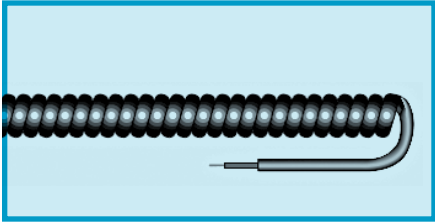
1-piece packages

Cord length: 2 ft (0.61 m) retracted, 10 ft (3.0 m) extended

28 AWG (0.09 mm²)					
Stranding: 19/40 (19 x 0.08 mm) Insulation thickness: 0.012 (0.30 mm) Lead length, each end: 6 (152 mm)					
Part No.	Conductors	Coil Diameter		Cord Diameter	
		Inch	mm	Inch	mm
651	2	0.471	11.96	0.135	3.43
652	4	0.592	15.04	0.150	3.81

Manhattan™ Cordsets

5000 V Retractable Test Lead Wire



Operating Temperature

- -30°C to +60°C

Conductor Color Coding

- Black or red

Materials

- Stranded tinned copper conductors
- Rubber insulation
- Black jacket

Availability

1-piece packages
(Minimums may apply)

20 AWG (0.53 mm ²)							
Stranding: 41/36 (41 x 0.13 mm)							
Insulation thickness: 0.050 (1.52 mm)							
Jacket stripped 1.5" (38.1 mm); insulation stripped 0.50" (12.7 mm)							
Part No.	Conductors	Coil Diameter		Cord Diameter		Power Rating	
		Inch	mm	Inch	mm	Watts	Amps
650*	1	0.580	14.73	0.165	4.19	1250	10

*Not UL Listed



Manhattan™ Cordsets

2000 V Portable Power Cable



Type W
ICEA Accepted
NEMA Accepted

Operating Temperature

- -30°C to +90°C

Conductor Color Coding

- See tables

Materials

- Stranded bare copper conductors
- Thermoset insulation
- Black chlorinated polyethylene (CPE) jacket

Availability

Cut to specific length
(Minimums may apply)

1-Conductor Cable

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Nominal Diameter		Current-Carrying Capacity*
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm	Amps
7431	6	13.57	133/27	133 x 0.36	0.063	1.60	0.080	2.03	0.510	12.95	85
7432	4	21.55	133/25	133 x 0.45	0.063	1.60	0.080	2.03	0.570	14.48	110
7434	2	34.45	133/23	133 x 0.57	0.063	1.60	0.080	2.03	0.660	16.76	150
7436	1/0	53.1	259/24	259 x 0.51	0.078	1.98	0.080	2.03	0.770	19.56	200
7437	2/0	67.08	259/23	259 x 0.57	0.078	1.98	0.080	2.03	0.820	20.83	235
7439	4/0	107	259/21	259 x 0.72	0.078	1.98	0.080	2.03	0.930	23.62	315

Conductor color coding: black.

*Single conductor at 40°C ambient.

2-Conductor Cable

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Nominal Diameter		Current-Carrying Capacity*
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm	Amps
7680	8	8.61	133/29	133 x 0.28	0.063	1.60	0.095	2.41	0.810	20.57	50
7681	6	13.57	133/27	133 x 0.36	0.063	1.60	0.095	2.41	0.930	23.62	65
7682	4	21.55	133/25	133 x 0.45	0.063	1.60	0.110	2.79	1.080	27.43	90
7684	2	34.45	133/23	133 x 0.57	0.063	1.60	0.140	3.56	1.270	32.26	125

Conductor color coding: black, white.

*Single conductor at 40°C ambient.

3-Conductor Cable

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Nominal Diameter		Current-Carrying Capacity*
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm	Amps
7700	8	8.61	133/29	133 x 0.28	0.063	1.60	0.140	3.56	0.910	23.11	50
7701	6	13.57	133/27	133 x 0.36	0.063	1.60	0.140	3.56	1.010	25.65	65
7702	4	21.6	133/25	133 x 0.45	0.063	1.60	0.140	3.56	1.170	29.72	85

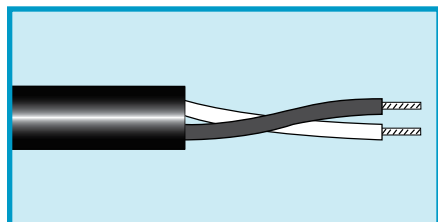
Conductor color coding: black, white, green.

*Single conductor at 40°C ambient.



Manhattan™ Cordsets

2000 V Portable Power Cable



Type W
ICEA Accepted
NEMA Accepted

Operating Temperature

- -30°C to +90°C

Conductor Color Coding

- See tables

Materials

- Stranded bare copper conductors
- Thermoset insulation
- Black chlorinated polyethylene (CPE) jacket

Availability

Cut to specific length
 (Minimums may apply)

4-Conductor Cable

Part No.	Wire Size		Stranding		Insulation Thickness		Jacket Thickness		Nominal Diameter		Current-Carrying Capacity*
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Inch	mm	Amps
7800	8	8.61	133/29	133 x 0.28	0.063	1.60	0.110	2.79	0.990	25.15	40
7801	6	13.57	133/27	133 x 0.36	0.063	1.60	0.110	2.79	1.010	25.65	50

Conductor color coding: black, white, green, red.

*Single conductor at 40°C ambient.

4-Conductor Cable with Ground

Part No.	Wire Size		Stranding		Insulation Thickness		Nominal Diameter		Current-Carrying Capacity*	Ground Wire**	
	AWG	mm ²	AWG	mm	Inch	mm	Inch	mm	Amps	AWG	mm ²
7760	8	8.61	133/29	133 x 0.28	0.063	1.60	0.990	25.15	55	12	3.08
7761	6	13.6	133/0.0140	133 x 0.36	0.063	1.60	1.100	27.94	55	12	3.08
7762	4	21.6	133/0.0177	133 x 0.45	0.063	1.60	1.270	32.26	75	10	5.32
7764	2	34.4	133/0.0223	133 x 0.57	0.063	1.60	1.480	37.59	100	9	7.00
7765	1	42.4	133/0.0251	133 x 0.64	0.078	1.98	1.680	42.67	110	8	8.63
7766	1/0	53.0	259/24	259 x 0.51	0.078	1.98	1.790	45.47	130	7	10.5

Conductor color coding: black, white, red, orange.

*Single conductor at 40°C ambient.

**Ground wire is stranded bare copper with insulation.



Manhattan™ Thermocouple Cable

Temperature Measurement and Control

The measurement of temperature is one of the most vital functions in the control of manufacturing and processing operations. As demands for greater quality, reliability, and economy increase, the demands for more precise measurement and control increase. Newer and more sophisticated electronic circuitry is employed creating stringent demands on the wire and cable used to sense and transmit temperature measurements. To meet these ever-increasing demands, Alpha has a full line of thermocouple-grade wire and thermocouple extension wire and cable.

The Thermocouple

At the heart of all temperature measurements is the thermocouple. Although involving very complex design parameters, the fundamental concept of all thermocouples is the same. Two wires of dissimilar metal are joined together at one end. An increase in temperature creates an electromotive force (EMF) or signal, which is transmitted through these wires to a monitoring device which “reads” this signal and displays it on a previously calibrated meter or digital device.

The monitoring device is usually at a location some distance away from the actual thermocouple. To connect the thermocouple to the monitor requires wire or cable (for multiple thermocouple installations) that will maintain the integrity of the temperature-EMF

signal generated by the primary wires in the thermocouple.

Conductor Materials

The range and accuracy of temperature measurement are dependent on the conductor materials employed. Pairs of various metal alloys will react differently with changes in temperature.

The following tables give the temperature range and tolerances for the most popular alloy combinations. All Alpha thermocouple wire and cable is tested and calibrated to the standard limits of error as indicated. Where situations require closer tolerances, wire and cable calibrated to the special error limits is available under special order.

Limits of Error for Thermocouple Grade

ANSI Type	Material	Temperature Range (°C)	Standard Limits (±)	Special Limits (±)
J	Iron/Constantan	0 to 277	2.22°C	1.11°C
		277 to 760	0.75%	0.375%
K	Chromel/Alumel	0 to 277	2.22°C	1.11°C
		277 to 1260	0.75%	0.375%
T	Copper/Constantan	-184 to -101	—	1%
		-101 to -59	2%	1%
		-59 to 93	0.83°C	0.42°C
		93 to 371	0.75%	0.375%
		0 to 316	1.67°C	1.25°C
E	Chromel/Constantan	316 to 871	0.5%	0.375%
R	Platinum 13% Rhodium/ Platinum	0 to 538	1.39°C	—
		538 to 1482	0.25%	—
S	Platinum 10% Rhodium/ Platinum	0 to 538	1.39°C	—
		538 to 1482	0.25%	—

Manhattan™ Thermocouple Cable

Limits of Error for Thermocouple Extension Wire

ANSI Type	Material	Temperature Range (°C)	Standard Limits (±)	Special Limits (±)
JX	Iron/Constantan	-18 to 204	2.22°C	1.11°C
KX	Chromel/Alumel	-18 to 204	2.22°C	1.11°C
TX	Copper/Constantan	-59 to 93	0.83°C	0.42°C
EX	Chromel/Constantan	-18 to 204	2.22°C	1.11°C
RSX	Copper/Copper Alloy 11	24 to 204	6.67°C	—

Insulation and Jacket Material Properties

Material	Temperature (°C)		Mechanical			Chemical Resistance			
	Continuous	Intermittent	Flame	Abrasion	Flexibility	Solvents	Acids	Bases	Moisture
PVC	105	—	G	G	G	F	G	G	G
FEP	200	—	E	E	G	E	E	E	E
TFE Tape	260	—	E	E	E	E	E	E	E
Glass Braid	510	650	E	F/G	G	E	E	E	F/G
High-Temp Glass Braid	700	870	E	F/G	G	E	E	E	F/G

E = Excellent, G = Good, F = Fair

ISA/ANSI Thermocouple Color Coding

ANSI Type	Positive Wire		Negative Wire		Jacket Color		
	Material	Insul. Color	Material	Insul. Color	Grade	Tracer	Extension
J, JX	Iron	White	Constantan	Red	Brown	Black	Black
K, KX	Chromel	Yellow	Alumel	Red	Brown	Yellow	Yellow
T, TX	Copper	Blue	Constantan	Red	Brown	Blue	Blue
E, EX	Chromel	Violet	Constantan	Red	Brown	Violet	Violet
RX, SX	Copper	Black	Alloy 11	Red	—	—	Green

Manhattan™ Thermocouple Grade Wire



ISA MC 96.1

Operating Temperature

- -20°C to +510°C

Conductor Color Coding

- ISA color-coded insulation and jacket

Materials

- Solid or stranded alloy wire
- Braided fiberglass or FEP insulation
- Braided fiberglass or FEP jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Duplex Parallel: Glass Braid Insulation, Glass Braid Jacket

Part No.	Conductor Size		Outer Dimension	
	AWG	mm ²	Inch	mm
Type J: Iron/Constantan				
5769/1	30	0.05	0.030 x 0.048	0.76 x 1.22
5766	24	0.20	0.040 x 0.068	1.02 x 1.73
5767H*	24	0.20	0.064 x 0.102	1.63 x 2.59
5763H*	20	0.51	0.084 x 0.142	2.13 x 3.61
5762S**	20	0.56	0.090 x 0.154	2.29 x 3.91
M9180012	20	0.51	0.060 x 0.106	1.53 x 2.69
Type K: Chromel/Alumel				
5776	24	0.20	0.040 x 0.068	1.02 x 1.73
5772S**	20	0.56	0.060 x 0.108	1.53 x 2.74
5773H *	20	0.51	0.084 x 0.142	2.13 x 3.61
M9180013	20	0.51	0.060 x 0.106	1.53 x 2.69
Type T: Copper/Constantan				
M9180014	20	0.51	0.060 x 0.106	1.53 x 2.69

*High temperature

**7/28 (7 x 0.32 mm) stranding

Duplex Parallel: FEP Insulation, FEP Jacket

Part No.	Conductor Size		Outer Dimension	
	AWG	mm ²	Inch	mm
Type J: Iron/Constantan				
M9160012	20	0.5	0.072 x 0.124	1.83 x 3.15
Type K: Chromel/Alumel				
M9160013	20	0.5	0.072 x 0.124	1.83 x 3.15
Type T: Copper/Constantan				
M9160014	20	0.5	0.072 x 0.124	1.83 x 3.15



Manhattan™ Thermocouple Extension Wire

Duplex Parallel, Unshielded



ISA MC 96.1

Operating Temperature

- -20°C to +105°C

Conductor Color Coding

- ISA color-coded insulation and jacket

Materials

- Solid or stranded alloy wire
- PVC, glass braid, or FEP insulation
- PVC, glass braid, or FEP jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Part No.	Conductor Size		Outer Dimension	
	AWG	mm ²	Inch	mm
Type JX: Iron/Constantan				
5716	20	0.51	0.092 x 0.154	2.34 x 3.91
5710	14	2.08	0.124 x 0.218	3.15 x 5.54
Type KX: Chromel/Alumel				
5724	20	0.51	0.092 x 0.154	2.34 x 3.91
5724S*	20	0.56	0.098 x 0.166	2.49 x 4.22
5721	16	1.31	0.111 x 0.192	2.82 x 4.88
Type TX: Copper/Constantan				
5731	20	0.51	0.092 x 0.154	2.34 x 3.91
5731S*	20	0.56	0.098 x 0.166	2.49 x 4.22
5730	16	1.31	0.111 x 0.192	2.82 x 4.88
Type RSX: Copper/Copper Alloy 11				
5740	16	1.31	0.111 x 0.192	2.82 x 4.88

*7/28 (7 x 0.32 mm) stranding

Glass Braid Insulation, Glass Braid Jacket

Part No.	Conductor Size		Outer Dimension	
	AWG	mm ²	Inch	mm
Type JX: Iron/Constantan				
5714	16	1.31	0.085 x 0.150	2.16 x 3.81
Type SX: Copper/Copper Alloy 11				
5741H*	16	1.31	0.085 x 0.150	2.16 x 3.81

*High temperature

FEP Insulation, FEP Jacket

Part No.	Conductor Size		Outer Dimension	
	AWG	mm ²	Inch	mm
Type JX: Iron/Constantan				
5715	16	1.31	0.087 x 0.154	2.21 x 3.91



Manhattan™ Thermocouple Extension Wire

300 V, Single and Multipair, Unshielded and Foil Shield



ISA MC 96.1
UL PLTC, ITC

Operating Temperature

- -20°C to +105°C
- -80°C to +200°C (High-temperature versions)

Conductor Color Coding

- ISA color-coded insulation and jacket

Materials

- Solid alloy wire
- PVC or FEP insulation
- Aluminum/polyester shield, 25% overlap min.
Foil facing inward
Tinned copper drain wire
- PVC or FEP jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Unshielded Single Pair, PVC Insulation, PVC Jacket
UL PLTC/ITC, 300 V, 105°C

Part No.	Conductor Size		Outer Dimension	
	AWG	mm ²	Inch	mm
Type EX: Chromel/Constantan				
M9000011	20	0.51	0.205	5.21
M9006011	16	1.31	0.235	5.97
Type JX: Iron/Constantan				
M9000012	20	0.51	0.205	5.21
M9006012	16	1.31	0.235	5.97
Type KX: Chromel/Alumel				
M9000013	20	0.51	0.205	5.21
M9006013	16	1.31	0.235	5.97
Type TX: Copper/Constantan				
M9000014	20	0.51	0.205	5.21
M9006014	16	1.31	0.235	5.97

Foil Shielded Individual and Overall, Twisted Pairs, PVC Insulation, PVC Jacket
UL PLTC/ITC, 300 V, 105°C

Part No.	Conductor Size		Pairs	Outer Dimension	
	AWG	mm ²		Inch	mm
Type EX: Chromel/Constantan					
M9020011	20	0.51	1	0.205	5.21
M9240041	20	0.51	4	0.440	11.18
M9240081	20	0.51	8	0.550	13.97
M9240121	20	0.51	12	0.665	16.89
M9240241	20	0.51	24	0.875	22.23
M9026011	16	1.31	1	0.235	5.97
Type JX: Iron/Constantan					
M9020012	20	0.51	1	0.205	5.21
M9240042	20	0.51	4	0.440	11.18
M9240082	20	0.51	8	0.550	13.97
M9240122	20	0.51	12	0.665	16.89
M9240162	20	0.51	16	0.740	18.80
M9240242	20	0.51	24	0.875	22.23
M9240362	20	0.51	36	1.010	25.65
M9026012	16	1.31	1	0.235	5.97
Type KX: Chromel/Alumel					
M9020013	20	0.51	1	0.205	5.21
M9240043	20	0.51	4	0.440	11.18
M9240083	20	0.51	8	0.550	13.97
M9240123	20	0.51	12	0.665	16.89
M9240243	20	0.51	24	0.875	22.23
M9026013	16	1.31	1	0.235	5.97
Type TX: Copper/Constantan					
M9020014	20	0.51	1	0.205	5.21
M9240044	20	0.51	4	0.440	11.18
M9240084	20	0.51	8	0.550	13.97
M9240124	20	0.51	12	0.665	16.89
M9240244	20	0.51	24	0.875	22.23
M9026014	16	1.31	1	0.235	5.97



Manhattan™ Thermocouple Extension Wire

300 V, Single and Multipair, Unshielded and Foil Shield



ISA MC 96.1
UL PLTC, ITC

Operating Temperature

- -20°C to +105°C
- -80°C to +200°C (High-temperature versions)

Conductor Color Coding

- ISA color-coded insulation and jacket

Materials

- Solid alloy wire
- PVC or FEP insulation
- Aluminum/polyester shield, 25% overlap min.
Foil facing inward
Tinned copper drain wire
- PVC or FEP jacket

Availability

100 ft (30.5 m)
500 ft (152 m)
1000 ft (305 m)
Bulk, cut to length
(Minimums may apply)

Foil Shielded Overall, Twisted Pairs, Solid Conductors, PVC Insulation, PVC Jacket
UL PLTC, 300 V, 105°C

Part No.	Conductor Size		Pairs	Outer Dimension	
	AWG	mm ²		Inch	mm
Type JX: Iron/Constantan					
5711/2004	20	0.51	4	0.369	9.37
5711/2008	20	0.51	8	0.480	12.19
5711/2012	20	0.51	12	0.557	14.15
Type KX: Chromel/Alumel					
5712/2002	20	0.51	2	0.325	8.26
5712/2004	20	0.51	4	0.369	9.37
5712/2008	20	0.51	8	0.480	12.19
5712/2024	20	0.51	24	0.828	21.03
5712/2036	20	0.51	36	0.956	24.28
Type TX: Copper/Constantan					
5713/2004	20	0.51	4	0.369	9.37
5713/2012	20	0.51	12	0.557	14.15
5713/2024	20	0.51	24	0.828	21.03
Type RSX: Copper/Copper Alloy					
5714/1601	16	1.31	2	0.256	6.50

Foil Shielded Twisted Pairs, FEP Insulation, FEP Jacket
High Temperature: -80°C to 200°C

Part No.	Conductor Size		Pairs	Outer Dimension	
	AWG	mm ²		Inch	mm
Type JX: Iron/Constantan					
5717/2001	20	0.51	1	0.150	3.81
5717/1601	16	1.31	1	0.188	4.78
Type KX: Chromel/Alumel					
5718/2001	20	0.51	1	0.150	3.81
5718/1601	16	1.31	1	0.188	4.78



Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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