

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 mm ²) | | | | | |
|---------------------------------------|------------|------------------|-------|------------------|------|
| 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



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)

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)



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)

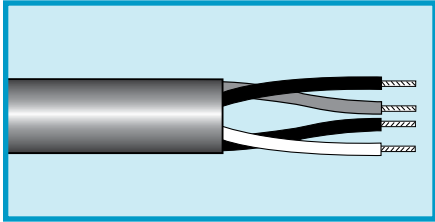
Stranding: 7/30 (7 x 0.25 mm)
 Insulation thickness: 0.010 (0.25 mm)

| 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 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 2464, CMG

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 |
| M13063 | 3 | 0.224 | 5.68 | 0.035 | 0.89 |
| M13066 | 6 | 0.284 | 7.21 | 0.035 | 0.89 |
| M13069 | 9 | 0.328 | 8.33 | 0.035 | 0.89 |
| M13072 | 15 | 0.405 | 10.28 | 0.040 | 1.02 |

AWM 2464, CMG

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 |
| M13081 | 1 | 0.225 | 5.72 | 0.032 | 0.81 |
| M13082 | 2 | 0.326 | 8.28 | 0.032 | 0.81 |
| M13083 | 3 | 0.346 | 8.79 | 0.032 | 0.81 |
| M13084 | 4 | 0.380 | 9.65 | 0.032 | 0.81 |
| M13085 | 5 | 0.418 | 10.62 | 0.032 | 0.81 |
| M13086 | 6 | 0.458 | 11.63 | 0.032 | 0.81 |
| M13088 | 8 | 0.508 | 12.90 | 0.037 | 0.94 |
| M13089 | 9 | 0.554 | 14.07 | 0.040 | 1.02 |
| M13092 | 12 | 0.633 | 16.08 | 0.046 | 1.17 |
| M13095 | 15 | 0.700 | 17.78 | 0.051 | 1.30 |
| M13099 | 19 | 0.761 | 19.33 | 0.055 | 1.40 |



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 mm ²) | | | | | | |
|---|------------|------------------|------|------------------|------|--------|
| Stranding: 19/0.0117 (19 x 0.30 mm) Insulation thickness: 0.016 (0.41 mm) 18 AWG (0.81 mm ²) 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 mm ²) | | | | | | |
|---|------------|------------------|------|------------------|------|----------|
| Stranding: 41/30 (41 x 0.25 mm) Insulation thickness: 0.020 (0.51 mm) 16 AWG (1.32 mm ²) 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 mm ²) | | | | | | |
|---|------------|------------------|------|------------------|------|----------|
| Stranding: 65/30 (65 x 0.25 mm) Insulation thickness: 0.020 (0.51 mm) 14 AWG (2.08 mm ²) 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



| 20 AWG (0.56 mm ²) | | | | | |
|---------------------------------------|-------|------------------|------|------------------|------|
| 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)

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)



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)

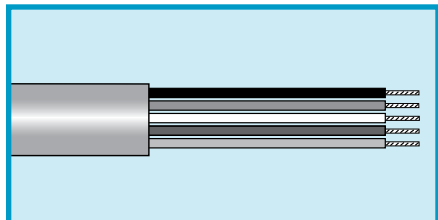
Stranding: 65/30 (65 x 0.25 mm)
 Insulation thickness: 0.020 (0.51 mm)

| 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 |



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)

450 V; Not UL Recognized

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 |
| M33218 | 2 | 0.299 | 7.59 | 0.020 | 0.51 |
| M33219 | 3 | 0.317 | 8.05 | 0.020 | 0.51 |

450 V; Not UL Recognized

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 |
| 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)

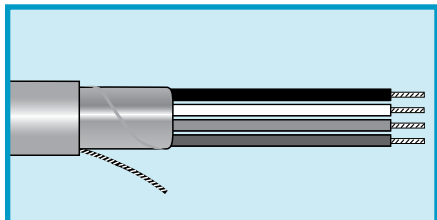
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
22 AWG (0.35 mm²) drain wire

| 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



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)

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)



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 mm ²) | | | | 22 AWG (0.35 mm ²) | | | | |
|----------|------------|---|------|----------------------|------|--------------------------------|------|----------------|------------------|------------|
| | | Stranding: 7/32 (7 x 0.20 mm) 22 AWG (0.35 mm ²) drain wire (M14477) 24 AWG (0.22 mm ²) 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

| Part No. | 22 AWG (0.35 mm ²) | | Nominal Diameter | | Jacket Thickness | | Insulation |
|--------------|--------------------------------|--------|------------------|------|------------------|------|------------|
| | Conductors* | 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

| Part No. | 20 AWG (0.56 mm ²) | | Nominal Diameter | | Jacket Thickness | | Insulation |
|---------------|--------------------------------|--------|------------------|------|------------------|------|------------|
| | Conductors | 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 mm ²) | | | | | |
|--|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|--|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|--|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|--|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---------------------------------------|-------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---------------------------------------|-------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---------------------------------------|-------|------------------|-------|------------------|------|
| 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



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 |

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)



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 mm ²) | | | | | |
|---|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---|------------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---|------------|------------------|-------|------------------|------|
| 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: 19/0.017 (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 mm ²) | | | | | |
|--|-------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|--|-------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|--|-------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---|-------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|---|-------|------------------|-------|------------------|------|
| 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 mm ²) | | | | | |
|---|-------|------------------|-------|------------------|------|
| 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



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 |

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)

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 mm ²) | | | | | |
|--|--------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|--|--------|------------------|------|------------------|------|
| 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 mm ²) | | | | | |
|--|--------|------------------|------|------------------|------|
| 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



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 |

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)



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



| 24 AWG (0.22 mm ²) | | | | | |
|---------------------------------------|------------|------------------|------|------------------|------|
| 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 |

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)



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 mm ²) | | | | | |
|--|-------|------------------|-------|------------------|------|
| 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 (mm ²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., In. (mm) |
| 9055B | 20 (0.52) | Solid | SPC | PE | 0.116 (2.95) | Dbl 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 (mm ²) | 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 (mm ²) | 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 (mm ²) | 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.



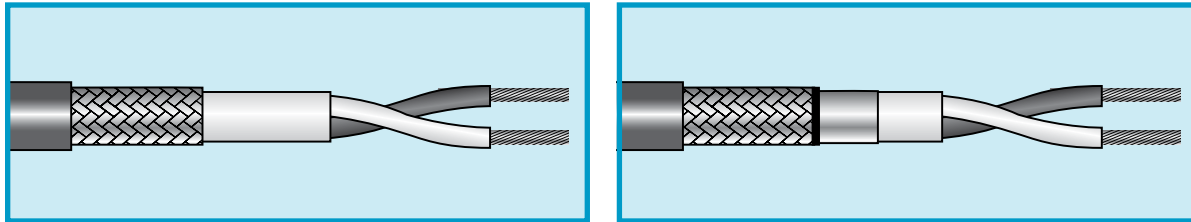
Manhattan™ Coaxial Cable

| 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 |



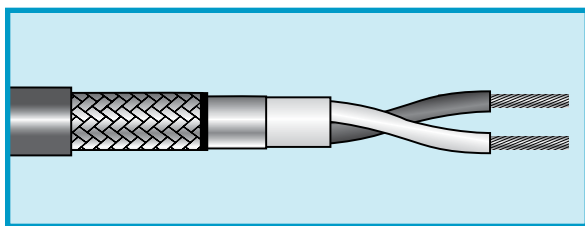
Manhattan™ Coaxial Cable



| 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 (mm ²) | 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 (mm ²) | 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 (mm ²) | 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 (mm ²) | 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 (0.030 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



**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 | mm ² | 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 | mm ² | 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

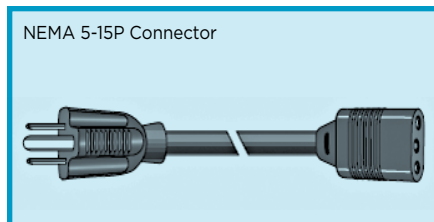
| Part No. | | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | | Color Code |
|------------|-------------|-------------|---|-----------|-----------------|-----------|-----------|------------------|------|--------------|------|------------|
| 25 pc | 100 pc | Ft | m | AWG | 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 | mm ² | 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 | mm ² | 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 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 |
| 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 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 |
| 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 mm²)

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% |
| E | Chromel/Constantan | 0 to 316 | 1.67°C | 1.25°C |
| | | 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

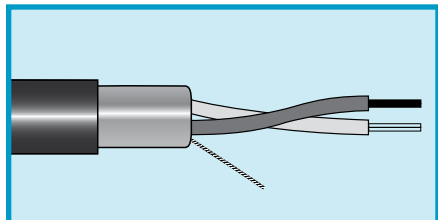
FEP Insulation, FEP Jacket

| 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 «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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