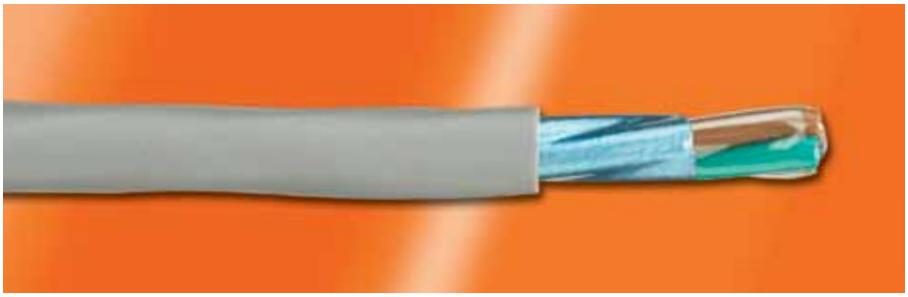
# Manhattan™ Electrical Cable

# 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

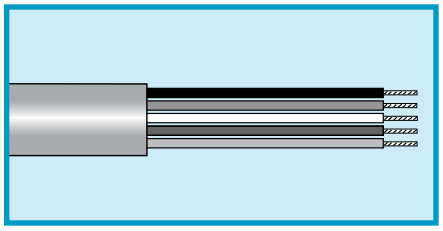
You can find the perfect Manhattan brand thermocouple cable based on conductor combinations JX, KX, EX, and SX, as well as insulations suited for applications up to 200°C, for quality and accurate temperature measurement.



Specifications subject to change. For complete specifications and availability, visit www.alphawire.com.

# Manhattan™ Audio/Video Cable

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



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

### Applications

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

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

**UL AWM 2509, UL CMG, PVC Insulation**

**22 AWG (0.35 mm²)**

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

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

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

**22 AWG (0.35 mm²)**

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

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

**UL AWM 2464, UL CM, PVC Insulation**

**20 AWG (0.56 mm²)**

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

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

**UL AWM 2509, UL CMG, PVC Insulation**

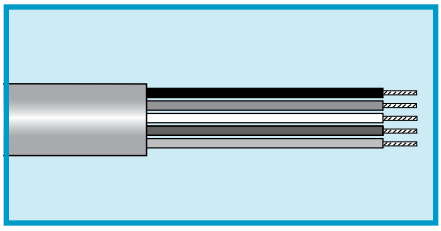
**20 AWG (0.56 mm²)**

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

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

# Manhattan™ Audio/Video Cable

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



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

### Applications

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

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

### UL AWM 2509, UL CMG, PVC Insulation

**18 AWG (0.81 mm²)**

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

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

### UL AWM 2598, UL CM, PVC Insulation

**18 AWG (0.96 mm²)**

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

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

### UL AWM 2576, UL CM, PVC Insulation

**16 AWG (1.32 mm²)**

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

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

### UL AWM 2463, UL CL2 or CL3, PVC Insulation

**14 AWG (2.08 mm²)**

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

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

### UL AWM 2463, UL CL3, PVC Insulation

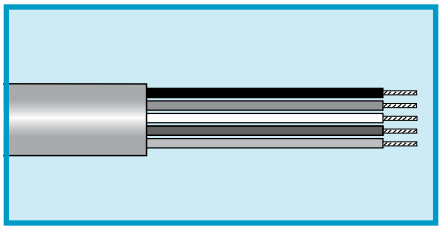
**12 AWG (3.29 mm²)**

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

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

# Manhattan™ Audio/Video Cable

## 300 V Unshielded, Multiconductor, PVC, PVC



**UL AWM 2463 (600 V) VW-1**

### Applications

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

### Operating Temperature

- -20°C to +80°C

### Conductor Color Coding

- Chart F (page 532)

### Materials

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

### Availability

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

**16 AWG (1.32 mm²)**

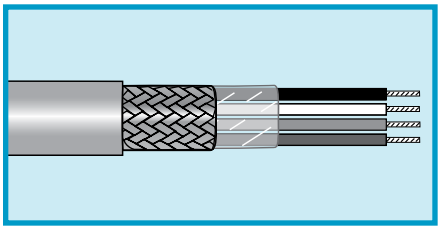
Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.032 (0.81 mm)

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

UL LISTED CA PROP 65 RoHS Compliant

# 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 |

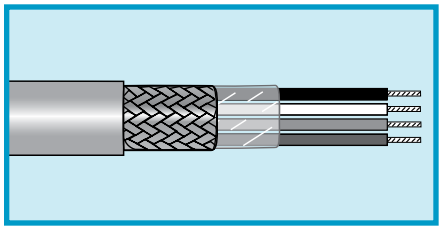
**20 AWG (0.52 mm²)**

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 |

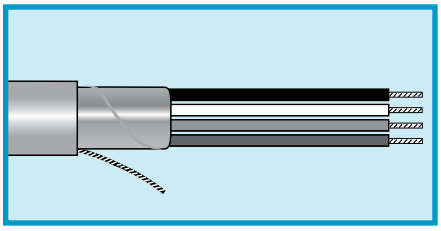
**16 AWG (1.31 mm²)**

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)

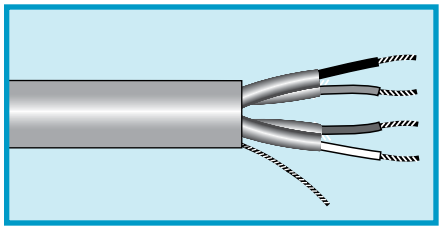
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | | Color Code |
|---|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm | |
| **M39047** | 2 | 0.193 | 4.90 | 0.035 | 0.89 | O |
| **M39048** | 3 | 0.202 | 5.13 | 0.035 | 0.89 | O |
| **M39049** | 10 | 0.319 | 8.10 | 0.040 | 1.02 | O |
| **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)

UL LISTED CA PROP 65 RoHS Compliant

# 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

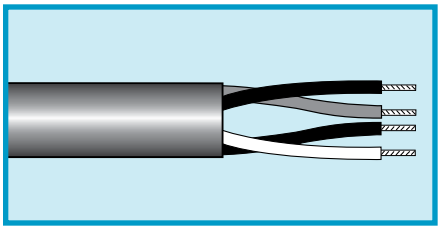
### Availability

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

RoHS Compliant

# 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**

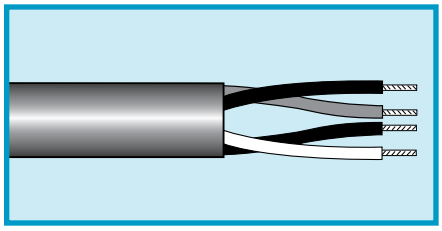
**22 AWG (0.35 mm²)**

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**

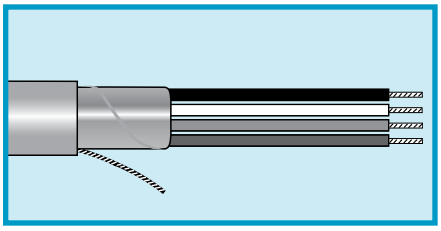
**18 AWG (0.81 mm²)**

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 |

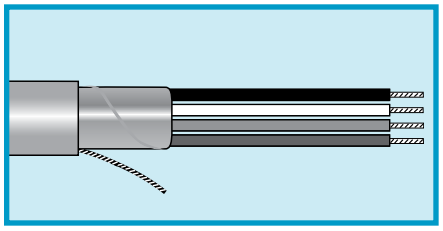
**18 AWG (0.81 mm²)**

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 mm²)**

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

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

**14 AWG (2.08 mm²)**

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

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

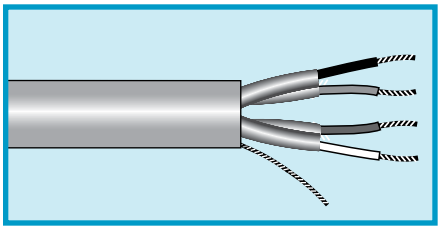
**12 AWG (3.29 mm²)**

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

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

# Manhattan™ Audio/Video Cable

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



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

### Applications

- Audio and sound systems

### Operating Temperature

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

### Conductor Color Coding

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

### Materials

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

### Availability

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

### AWM 2493, UL CM, Polypropylene Insulation

**22 AWG (0.32 mm²)**

Stranding: Solid
Insulation thickness: 0.010 (0.25 mm)

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

### UL CM, Polypropylene Insulation

**22 AWG (0.35 mm²)**

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

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

### AWM 2919, UL CM, Polypropylene Insulation

**22 AWG (0.35 mm²)**

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

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

### AWM 2464, UL CM, SR-PVC Insulation

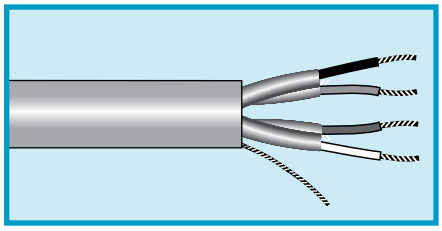
**20 AWG (0.56 mm²)**

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

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

# Manhattan™ Audio/Video Cable

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



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

### Applications

- Audio and sound systems

### Operating Temperature

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

### Conductor Color Coding

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

### Materials

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

### Availability

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

**AWM 2919, UL CM, Polyethylene Insulation**

**20 AWG (0.56 mm²)**

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

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

**AWM 2919, UL CM, Polyethylene Insulation**

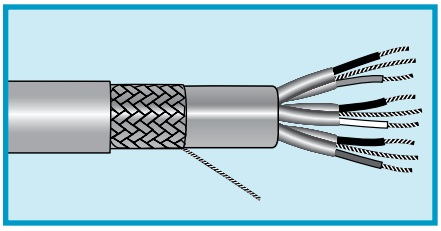
**18 AWG (0.81 mm²)**

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

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

# Manhattan™ Audio/Video Cable

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



**UL CMG VW-1**
**CSA CMG**

### Applications

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

### Operating Temperature

- -20°C to +105°C

### Conductor Color Coding

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

### Materials

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

### Availability

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

**20 AWG (0.56 mm²)**

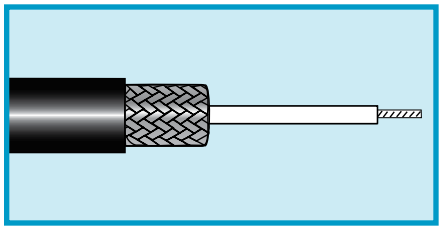
Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.015 (0.38 mm)

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

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

# Manhattan™ Audio/Video Cable

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



### Applications

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

### Operating Temperature

- –20°C to +60°C

### Materials

- Stranded tinned copper conductors*
- Polyethylene insulation
- Braided tinned copper or spiral wrapped tinned copper shield
- Slate PVC jacket

### Availability

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

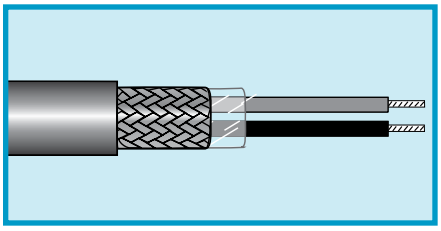
| Part No. | Voltage | Wire Size | | Stranding | | Nominal Diameter | | Shield | Jacket Thickness | | Insulation Thickness | | Capacitance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AWG | mm² | AWG | mm | Inch | mm | | Inch | mm | Inch | mm | pF/ft | pF/m |
| **M3601*** | 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.

CA PROP 65 RoHS Compliant

# 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)**

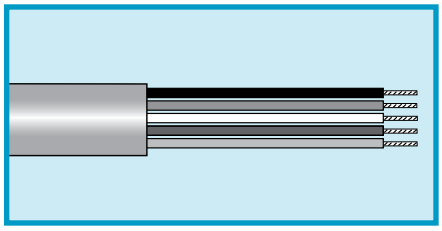
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

| 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**

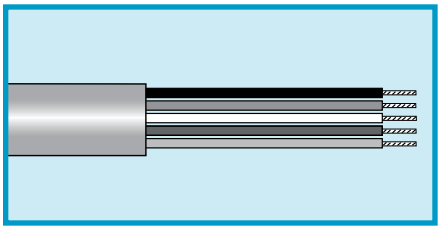
**18 AWG (0.81 mm²)**

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

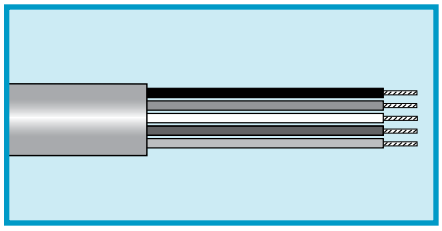
**12 AWG (3.29 mm²)**

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

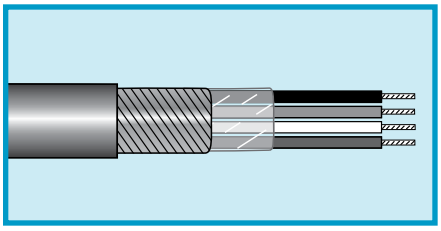
**22 AWG (0.35 mm²)**

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 |

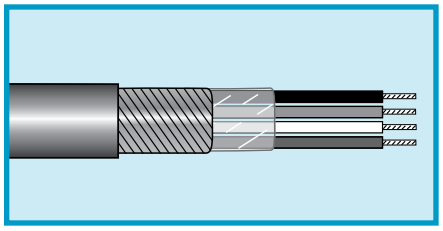
**18 AWG (0.81 mm²)**

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)**

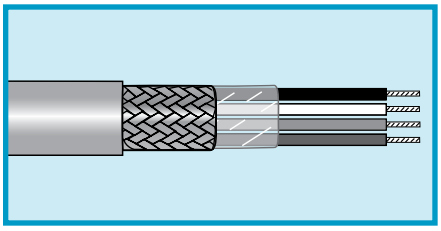
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.020 (0.51 mm)

| 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

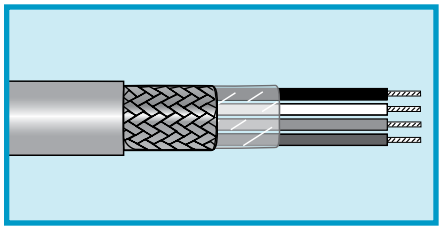
**16 AWG (1.32 mm²)**

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**

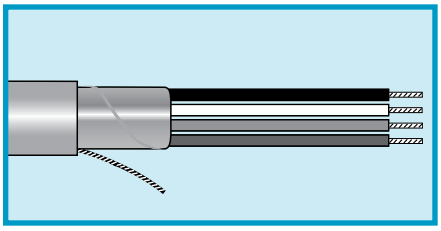
**12 AWG (3.29 mm²)**

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)

CA PROP 65 RoHS Compliant

### Polyethylene Insulation

**24 AWG (0.22 mm²)**

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

| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | | Approval | Color Code |
|---|---|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm | | |
| **M13222** | 2 | 0. 166 | 4.22 | 0.025 | 0.64 | 2092, CM | Black, Clear |

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

### Semi-Rigid PVC Insulation

**24 AWG (0.22 mm²)**

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

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

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

### Polyethylene Insulation

**22 AWG (0.35 mm²)**

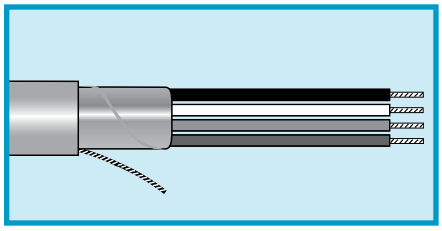
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
22 AWG (0.35 mm²) drain wire

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

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

# Manhattan™ Audio/Video Cable

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



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

### Applications

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

### Operating Temperature

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

### Conductor Color Coding

(Unless noted)

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

### Materials

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

### Availability

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

### PVC Insulation

**22 AWG (0.35 mm²)**

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

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

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

Color code: black, red.

### Polyethylene Insulation

**20 AWG (0.56 mm²)**

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

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

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

### Polyethylene Insulation

**18 AWG (0.81 mm²)**

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

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

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

### SR-PVC Insulation

**18 AWG (0.96 mm²)**

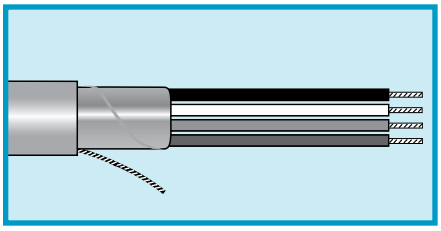
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
20 AWG (0.56 mm²) drain wire

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

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

# Manhattan™ Audio/Video Cable

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



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

### Applications

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

### Operating Temperature

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

### Conductor Color Coding

(Unless noted)

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

### Materials

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

### Availability

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

### Polyethylene Insulation

**16 AWG (1.32 mm²)**

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

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

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

### Polyethylene Insulation

**14 AWG (2.08 mm²)**

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

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

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

### Polyethylene Insulation

**12 AWG (3.29 mm²)**

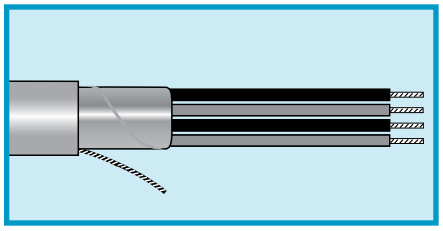
Stranding: 19/0.0185 (19 x 0.47 mm)
Insulation thickness: 0.037 (0.81 mm)
14 AWG (2.08 mm²) drain wire

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

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

# Manhattan™ Audio/Video Cable

## 300 V Foil Shield, Multiconductor, PVC, PVC



**UL AWM 2464**
**UL CMG**
**CSA CMG FT4**

### Applications

- Audio, broadcast, and sound systems
- Instrumentation

### Operating Temperature

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

### Conductor Color Coding

- 1 Black, 2 Red

### Materials

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

### Availability

Bulk, cut to length
(Minimums may apply)

**20 AWG (0.56 mm²)**

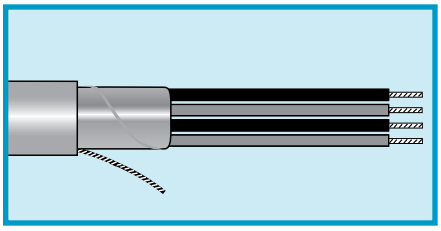
Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.013 (0.33 mm)

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

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

# Manhattan™ Audio/Video Cable

## 300 V Foil Shield, Multiconductor, PP, PVC Miniature



**UL CM**
**CSA CM**

### Applications

- Audio, broadcast, and sound systems
- Instrumentation

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

- 1 Black, 2 Red

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

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

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

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

*Black jacket.

**22 AWG (0.35 mm²)**

Stranding: Solid
Insulation thickness: 0.008 (0.20 mm)

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

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

**22 AWG (0.35 mm²)**

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

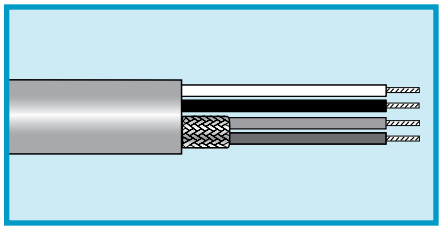
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M4326**<br>**M14327*** | 2 | 0.139 | 3.53 | 0.020 | 0.51 |

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

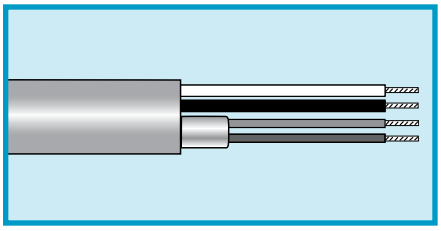
| Part No. | Pairs | Nominal Diameter | | Insulation Thickness | | Jacket Thickness | | Configuration | |
|---|---|---|---|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm | Inch | mm | Shielded | Unshielded |
| **M14474** | 2 | 0.243 | 5.17 | 0.010 | 0.25 | 0.028 | 0.71 | 2 Red, Black | — |
| **M14476***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

*Not CMG

UL LISTED CSA CA PROP 65 RoHS Compliant

# Manhattan™ Audio/Video Cable

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



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

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

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

| 24 AWG (0.22 mm²) | 22 AWG (0.35 mm²) |
|---|---|
| Stranding: 7/32 (7 x 0.20 mm)<br>22 AWG (0.35 mm²) drain wire (M14477)<br>24 AWG (0.22 mm²) drain wire (M14478) | Stranding: 7/30 (7 x 0.25 mm) |

| Part No. | Conductors | Nominal Diameter | | Insulation Thickness | | Jacket Thickness | | Configuration | | Insulation |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm | Inch | mm | Shielded | Unshielded | |
| M14477 | 4 (24 AWG) | 0.239 | 6.07 | 0.016 | 0.41 | 0.028 | 0.71 | 4** | — | PVC |
| | 2 (22 AWG) | | | | | | | — | 2<br>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<br>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

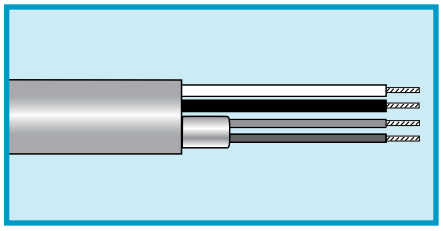
| 22 AWG (0.35 mm²) |
|---|
| Stranding: 7/30 (7 x 0.25 mm)<br>Insulation Thickness 0.008 (0.20 mm)<br>22 AWG (0.35 mm²) drain wire |

| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | | Configuration | | Insulation |
|---|---|---|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm | Shielded | Unshielded | |
| M14475 | 3 | 0.143 | 3.63 | 0.020 | 0.51 | 3* | — | PP |

*Conductor color coding: Black, red, white.

# Manhattan™ Audio/Video Cable

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



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

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

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

| 22 AWG (0.35 mm²) | | | | | 18 AWG (0.81 mm²) | | |
|---|---|---|---|---|---|---|---|
| Stranding: 7/30 (7 x 0.25 mm)<br>Insulation thickness: 0.010 (0.25 mm) | | | | | Stranding: 16/30 (16 x 0.25 mm)<br>Insulation thickness: 0.018 (0.46 mm) | | |
| **Part No.** | **Conductors*** | | **Nominal Diameter** | | **Jacket Thickness** | | **Insulation** |
| | 22 AWG | 18 AWG | Inch | mm | Inch | mm | |
| **M4406** | 4 | 2 | 0.255 | 6.48 | 0.032 | 0.81 | PVC |

Conductor color coding:
22 AWG: Red, green, brown, blue.
18 AWG: Black, white.

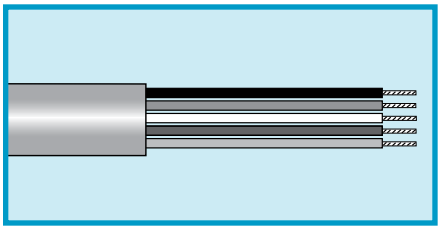
**20 Foil Shielded and 18 AWG Unshielded, AWM 2094, CM, Beige Jacket**

| 20 AWG (0.56 mm²) | | | | | 18 AWG (0.81 mm²) | | |
|---|---|---|---|---|---|---|---|
| Stranding: 7/28 (7 x 0.32 mm)<br>Insulation thickness: 0.20 (0.50 mm)<br>22 AWG (0.35 mm²) drain wire | | | | | Stranding: 16/30 (16 x 0.25 mm)<br>Insulation thickness: 0.019 (0.48 mm) | | |
| **Part No.** | **Conductors** | | **Nominal Diameter** | | **Jacket Thickness** | | **Insulation** |
| | 20 AWG | 18 AWG | Inch | mm | Inch | mm | |
| **M13291** | 2 | 2 | 0.264 | 6.71 | 0.032 | 0.81 | PE |

Conductor color coding:
22 AWG: Black, red.
18 AWG: Green, white.

# Manhattan™ Security and Data Cable

## 300 V Unshielded, Multiconductor, PVC, PVC



**UL CMR**
**CSA CMR**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

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

### Materials

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

### Availability

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.56 mm²)**

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

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

**18 AWG (0.89 mm²)**

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

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

**16 AWG (1.32 mm²)**

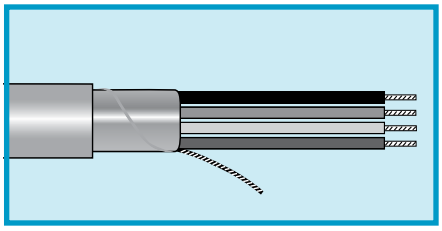
Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.010 (0.25 mm)

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

UL LISTED CA PROP 65 RoHS Compliant

# Manhattan™ Security and Data Cable

## 300 V Foil Shielded, Multiconductor, PVC, PVC



**UL CMR**
**CSA CMR**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

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

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

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

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.56 mm²)**

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

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

**18 AWG (0.89 mm²)**

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

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

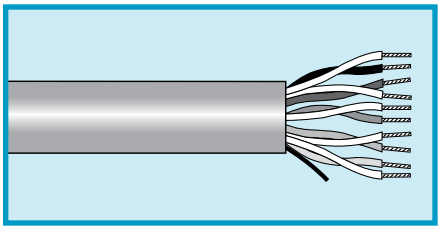
**16 AWG (1.32 mm²)**

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

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

# Manhattan™ Security and Data Cable

## 300 V Unshielded, Multipair, PVC, PVC



**UL CMR**
**CSA CMR**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

- Chart A1 (page 528)

### Materials

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

### Availability

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.56 mm²)**

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

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

**18 AWG (0.89 mm²)**

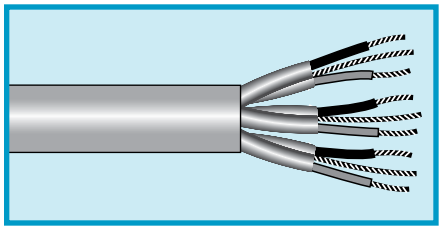
Stranding: 7/26 (7 x 0.40 mm)
Insulation thickness: 0.010 (0.25 mm)

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

UL LISTED CSA CA PROP 65 RoHS Compliant

# Manhattan™ Security and Data Cable

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



**UL CMR**
**CSA CMR**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

- Chart A1 (page 528)

### Materials

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

### Availability

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.56 mm²)**

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

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

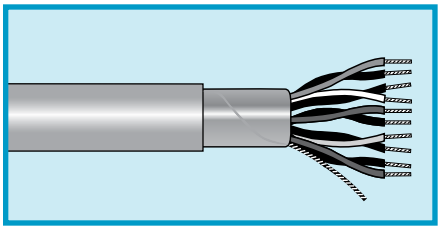
**18 AWG (0.89 mm²)**

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

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

# Manhattan™ Security and Data Cable

## 300 V Overall Foil Shield, Multipair, PVC, PVC



**UL CMR**
**CSA CMR**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

- Chart A1 (page 528)

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

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

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.56 mm²)**

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

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

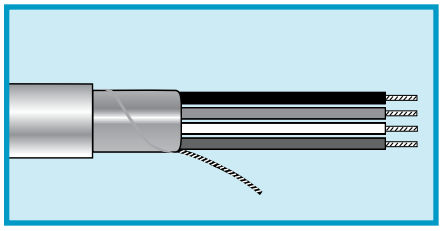
**18 AWG (0.89 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMP**
**CSA CMP FT6**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

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

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

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

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

**22 AWG (0.35 mm²)**

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

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

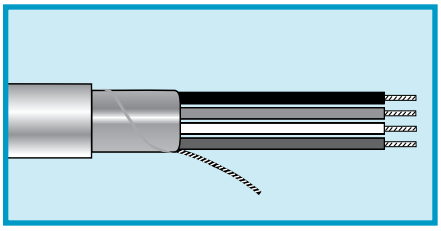
**20 AWG (0.56 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMP**
**CSA CMP FT6**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

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

### Materials

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

### Availability

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

**18 AWG (0.89 mm²)**

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

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

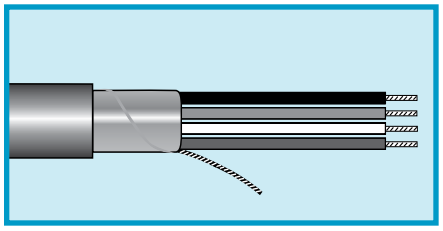
**16 AWG (1.32 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMR**
**CSA CMP FT6**

### Operating Temperature

- -40°C to +125°C

### Conductor Color Coding

- Chart D (page 531)

### Materials

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

### Availability

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

**22 AWG (0.35 mm²)**

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

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

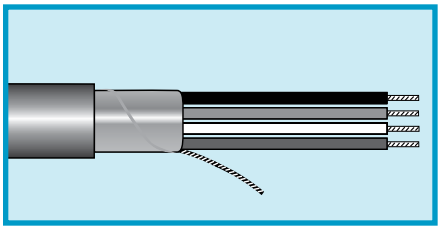
**18 AWG (0.96 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMP**
**CSA CMP FT6**

### Operating Temperature

- -20°C to +150°C

### Conductor Color Coding

- Chart F (page 532), unless noted

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

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

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

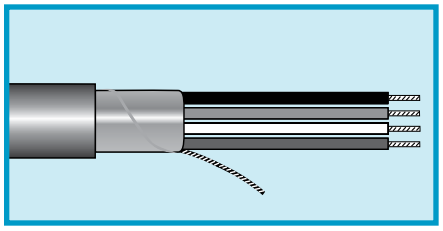
**22 AWG (0.35 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMP**
**CSA CMP FT6**

### Operating Temperature

- -20°C to +150°C

### Conductor Color Coding

- Chart F (page 532), unless noted

### Materials

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

### Availability

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

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.56 mm²)**

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

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

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

**18 AWG (0.96 mm²)**

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

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

**18 AWG (0.89 mm²)**

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

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

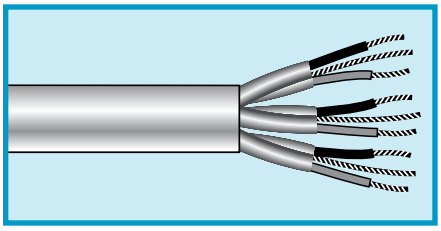
**16 AWG (1.43 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMP**
**CSA CMP**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

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

### Materials

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

### Availability

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

**22 AWG (0.35 mm²)**

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

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.56 mm²)**

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

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

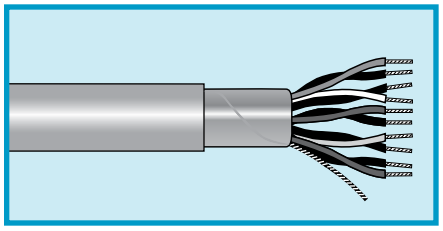
**18 AWG (0.89 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMP**
**CSA CMP FT6**

### Operating Temperature

- -20°C to +75°C

### Conductor Color Coding

- Chart K (page 529)

### Materials

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

### Availability

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

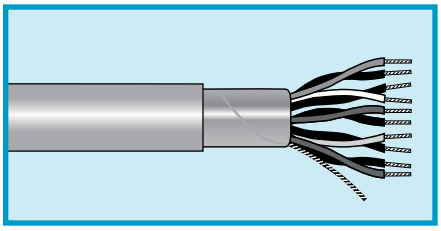
**24 AWG (0.22 mm²)**

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

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

# Manhattan™ Plenum Cable

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



**UL CMP**
**CSA CMP**

### Operating Temperature

- -80°C to +150°C

### Conductor Color Coding

- Chart K (page 529)

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

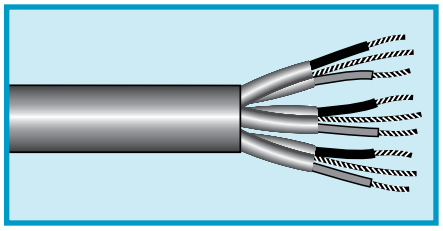
Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.006 (0.15 mm)
24 AWG (0.22 mm²) drain wire

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

CA PROP 65 RoHS Compliant

# 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)

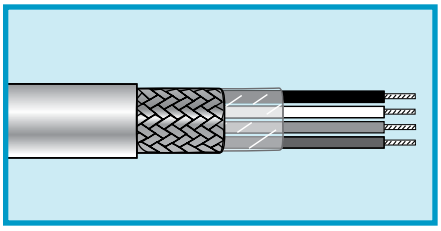
**24 AWG (0.22 mm²)**

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)**

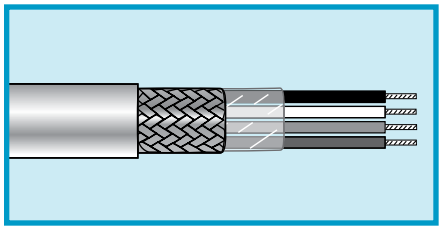
Stranding: 19/36 (19 x 0.13 mm)
Insulation thickness: 0.010 (0.25 mm) PVC/0.003 (0.08 mm) nylon

| 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 |

RoHS Compliant

# 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)**

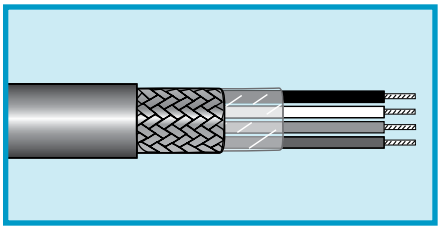
Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.011 (0.28 mm) PVC/0.004 (0.10 mm) nylon

| 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 |

RoHS Compliant

# 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)**

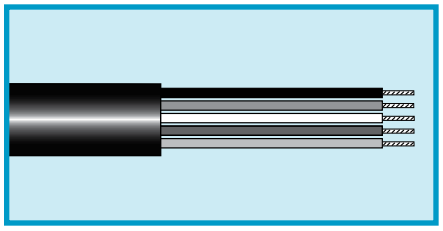
Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.017 (0.43 mm) PVC/0.004 (0.10 mm) nylon

| 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 |

CA PROP 65 RoHS Compliant

# 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)**

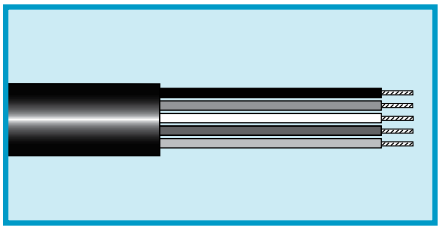
Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| 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 |

UL LISTED CA PROP 65 RoHS Compliant

# 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)**

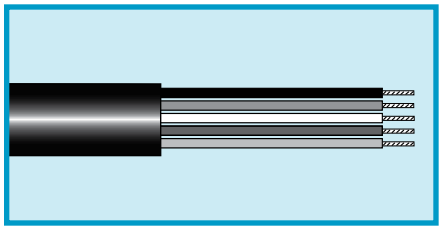
Stranding: 7/0.0305 (7 x 0.78 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| 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 |

UL LISTED CA PROP 65 RoHS Compliant

# Manhattan™ Control Cable

## 600 V Unshielded, Multiconductor, PVC/Nylon, PVC



### UL TC

### Operating Temperature

- -25°C to +90°C

### Conductor Color Coding

- Chart J (page 533)

### Materials

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

### Features

- UL Sunlight Resistant
- UL Direct Burial

### Availability

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

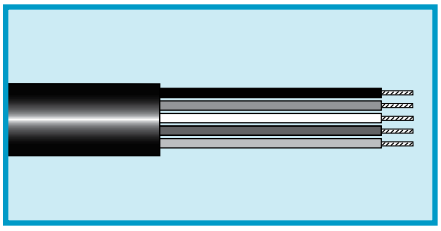
**10 AWG (5.26 mm²)**

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

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

# Manhattan™ Control Cable

## 600 V Unshielded, Multiconductor, PVC/Nylon, PVC



### UL TC

#### Operating Temperature

- -25°C to +90°C

#### Conductor Color Coding

- Chart D (page 531)

#### Materials

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

#### Features

- UL Sunlight Resistant
- UL Direct Burial

#### Availability

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

**18 AWG (0.96 mm²)**

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

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

**16 AWG (1.32 mm²)**

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

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

**14 AWG (2.08 mm²)**

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

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

**12 AWG (3.29 mm²)**

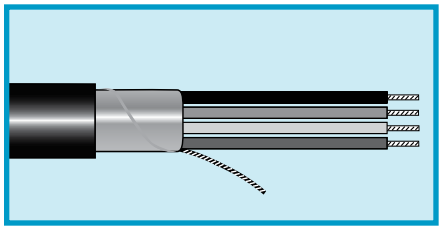
Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

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

UL LISTED CA PROP 65 RoHS Compliant

# 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 |

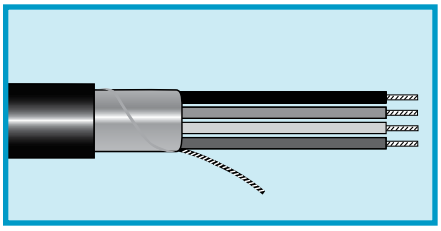
**14 AWG (2.08 mm²)**

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)**

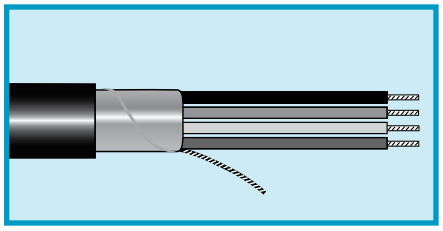
Stranding: 7/0.0385 (7 x 0.98 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

| 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 |

UL LISTED CA PROP 65 RoHS Compliant

# Manhattan™ Control Cable

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



### UL TC

### Operating Temperature

- -25°C to +90°C

### Conductor Color Coding

- Chart D (page 531)

### Materials

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

### Features

- UL Sunlight Resistant
- UL Direct Burial

### Availability

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

**18 AWG (0.96 mm²)**

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

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

**16 AWG (1.32 mm²)**

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

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

**14 AWG (2.08 mm²)**

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

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

**12 AWG (3.29 mm²)**

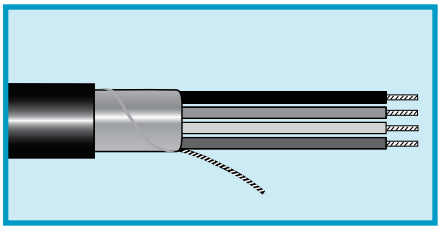
Stranding: 65/30 (65 x 0.25 mm)
Insulation thickness: 0.022 (0.56 mm) PVC/0.005 (0.13 mm) nylon

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

UL LISTED CA PROP 65 RoHS Compliant

# 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 |

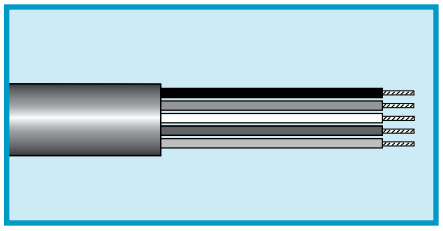
**14 AWG (2.08 mm²)**

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)

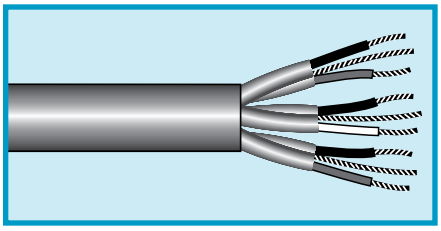
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M39081*** | 2 | 0.423 | 10.74 | 0.053 | 1.35 |

*Not CMG approved.

RoHS Compliant

# 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)**

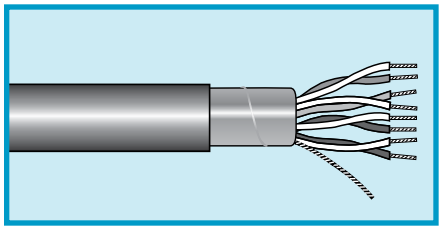
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

| 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 |

RoHS Compliant

# 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)**

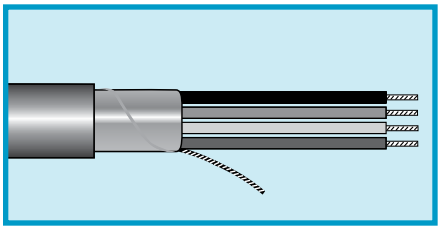
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)

| 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 |

RoHS Compliant

# Manhattan™ Control Cable

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



**UL PLTC, ITC**
**UL CMG**
**CSA CMG FT4**

### Operating Temperature

- -20°C to +105°C

### Conductor Color Coding

- Chart D (page 531)

### Materials

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

### Features

- UL Sunlight Resistant

### Availability

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.61 mm²)**

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

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

**18 AWG (0.96 mm²)**

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

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

**16 AWG (1.32 mm²)**

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

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

**14 AWG (2.08 mm²)**

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

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

*Not CMG approved.

**12 AWG (3.29 mm²)**

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

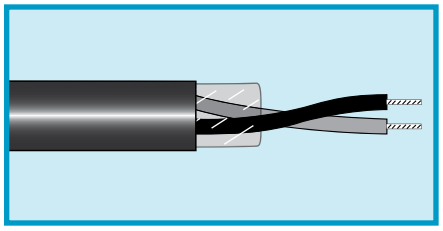
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M39123*** | 2 | 0.427 | 10.85 | 0.053 | 1.35 |

*Not CMG approved.

RoHS Compliant

# Manhattan™ Instrumentation Cable

## 300 V Unshielded Pairs, PVC, PVC



**UL PLTC, ITC**
**UL CL3**
**CSA CMG FT4**

### Operating Temperature

- -20°C to +105°C

### Conductor Color Coding

- Black, white

### Materials

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

### Features

- UL Sunlight Resistant

### Availability

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

**20 AWG (0.52 mm²)**

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

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

**18 AWG (0.82 mm²)**

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

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

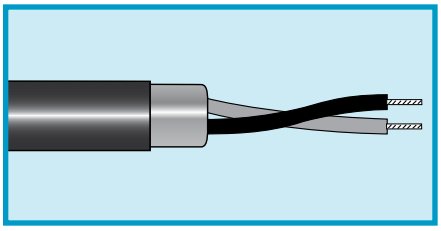
**16 AWG (1.31 mm²)**

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

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

# Manhattan™ Instrumentation Cable

## 300 V Overall Foil Shield, Pair, PVC, PVC



**UL PLTC, ITC**
**UL CL3**
**CSA CMG FT4**

### Operating Temperature

- -20°C to +105°C

### Conductor Color Coding

- Black, white

### Materials

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

### Features

- UL Sunlight Resistant

### Availability

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.52 mm²)**

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

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

**18 AWG (0.82 mm²)**

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

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

**16 AWG (1.31 mm²)**

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

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

**14 AWG (2.08 mm²)**

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

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

*Not CMG approved.

**12AWG (3.29 mm²)**

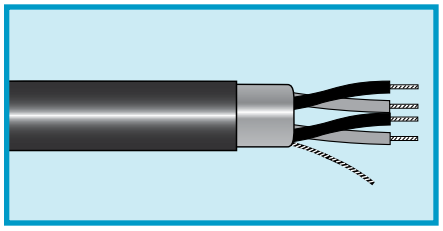
Stranding: 19/0.0185 (7 x 0.47 mm)
Insulation thickness: 0.022 (0.56 mm)
16 AWG (1.31 mm2) drain wire

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

*Not CMG approved.

# Manhattan™ Instrumentation Cable

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



### UL TC

#### Operating Temperature

- -25°C to +90°C

#### Conductor Color Coding

- Chart BW (page 529)

#### Materials

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

#### Features

- UL Sunlight Resistant
- UL Direct Burial

#### Availability

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

**20 AWG (0.52 mm²)**

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

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

**18 AWG (0.82 mm²)**

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

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

**16 AWG (1.31 mm²)**

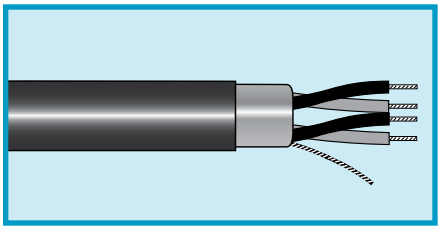
Stranding: 7/0.0192 (7 x 0.49 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

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

UL LISTED RoHS Compliant

# 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)**

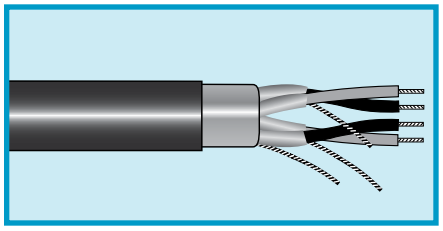
Stranding: 19/0.0185 (19 x 0.47 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

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

UL LISTED RoHS Compliant

# 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 | 9.33 | 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)**

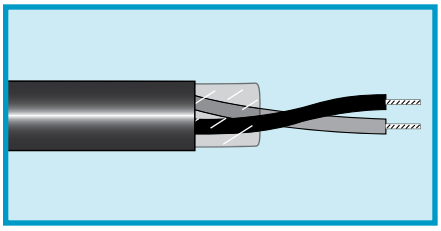
Stranding: 7/0.0242 (7 x 0.61 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| 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 |

UL LISTED RoHS Compliant

# 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 |

**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 |

### 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

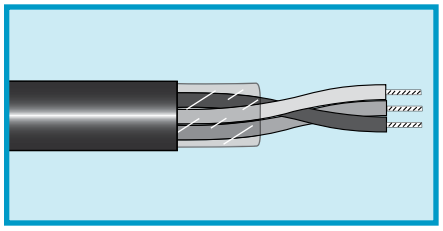
### Availability

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

UL LISTED CA PROP 65 RoHS Compliant

# Manhattan™ Instrumentation Cable

## 300 V Unshielded Triads, PVC, PVC



**UL PLTC, ITC**
**UL CL3**
**CSA CMG FT4**

### Operating Temperature

- -20°C to +105°C

### Conductor Color Coding

- Black, white, red

### Materials

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

### Features

- UL Sunlight Resistant

### Availability

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

**20 AWG (0.52 mm²)**

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

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

**18 AWG (0.81 mm²)**

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

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

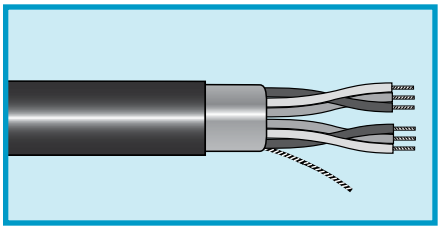
**16 AWG (1.31 mm²)**

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

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

# Manhattan™ Instrumentation Cable

300 V Foil Shield, Triads, PVC, PVC



**UL PLTC, ITC**
**UL CL3**
**CSA CMG FT4**

### Operating Temperature

- -20°C to +105°C

### Conductor Color Coding

- Black, white, red

### Materials

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

### Features

- UL Sunlight Resistant

### Availability

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

**22 AWG (0.35 mm²)**

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

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

**20 AWG (0.52 mm²)**

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

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

**18 AWG (0.82 mm²)**

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

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

**16 AWG (1.31 mm²)**

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

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

**14 AWG (2.08 mm²)**

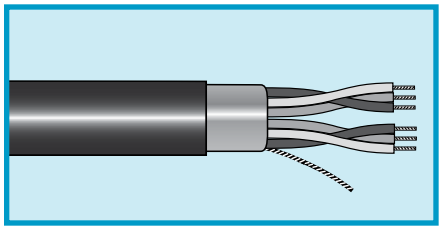
Stranding: 7/0.0242 (7 x 0.61 mm)
Insulation thickness: 0.016 (0.41 mm)

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

*Not CMG approved.

# Manhattan™ Instrumentation Cable

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



**UL PLTC**
**CSA CMG FT4**

### Operating Temperature

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

### Conductor Color Coding

- Black, white, red
- White conductors are numbered

### Materials

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

### Features

- UL Sunlight Resistant

### Availability

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

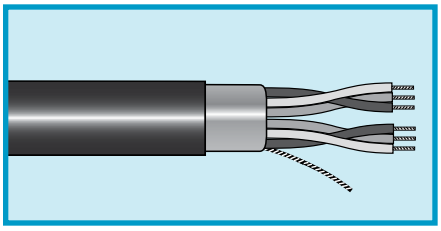
**20 AWG (0.51 mm²)**

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

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

# Manhattan™ Instrumentation Cable

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



**UL TC**

### Operating Temperature

- -25°C to +90°C

### Conductor Color Coding

- Black, white, red
- White conductors are numbered

### Materials

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

### Features

- UL Sunlight Resistant
- UL Direct Burial

### Availability

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

**18 AWG (0.82 mm²)**

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

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

**16 AWG (1.31 mm²)**

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

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

**14 AWG (2.08 mm²)**

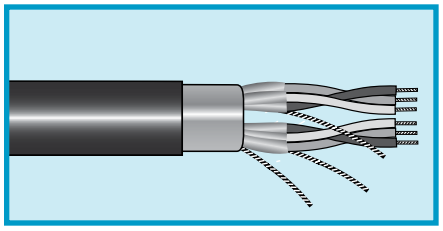
Stranding: 7/0.0242 (7 x 0.62 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

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

UL LISTED RoHS Compliant

# 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)**

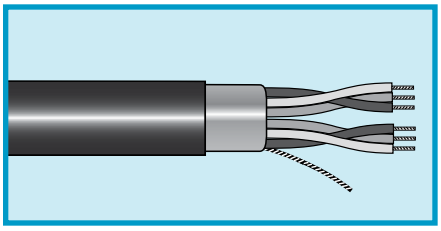
Stranding: 7/0.0242 (7 x 0.61 mm)
Insulation thickness: 0.016 (0.41 mm) PVC/0.005 (0.13 mm) nylon

| 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 |

UL LISTED RoHS Compliant

# 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) sttranding, 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 |

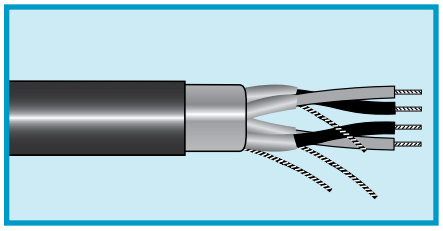
**16 AWG (1.31 mm²)**

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

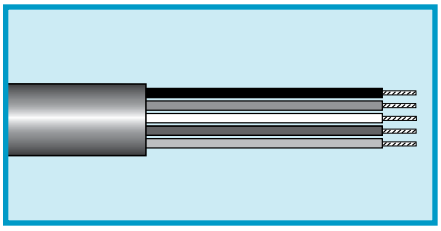
| Part No. | Pairs | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M9746020** | 2 | 0.441 | 11.20 | 0.053 | 1.35 |
| **M9746040** | 4 | 0.512 | 13.00 | 0.053 | 1.35 |
| **M9746060** | 6 | 0.630 | 16.00 | 0.063 | 1.60 |
| **M9746080** | 8 | 0.690 | 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.

UL LISTED CSA PROP 65 RoHS Compliant

# Manhattan™ Computer Cable

## 300 V Unshielded, Multiconductor, PVC, PVC



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

### Applications

- Control and signal wiring
- Computers
- Instrumentation

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

**20 AWG (0.50 mm²)**

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

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

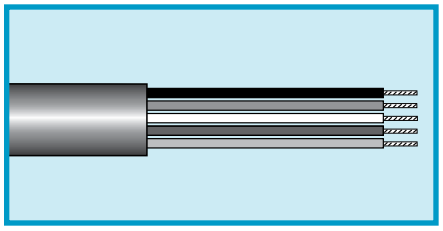
**18 AWG (0.81 mm²)**

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

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

# Manhattan™ Computer Cable

## 300 V Unshielded, Multiconductor, PVC, PVC



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

### Applications

- Control and signal wiring
- Computers
- Instrumentation

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

**16 AWG (1.32 mm²)**

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

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

**14 AWG (2.08 mm²)**

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

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

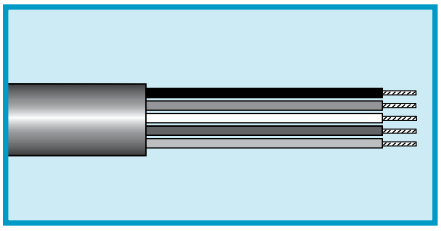
**12 AWG (3.29 mm²)**

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

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

# Manhattan™ Computer Cable

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



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

### Applications

- Control and signal wiring
- Computers
- Instrumentation

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

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

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

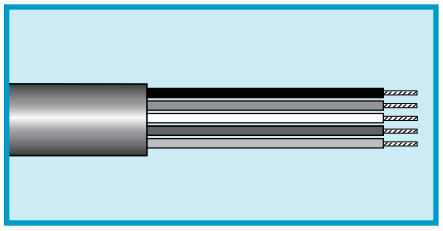
**22 AWG (0.35 mm²)**

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

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

# Manhattan™ Computer Cable

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



**UL AWM 2343**
**UL CMG**
**CSA CMG FT4**

### Applications

- Control and signal wiring
- Computers
- Instrumentation

### Operating Temperature

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

### Conductor Color Coding

- Chart E (page 532)

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

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

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

**22 AWG (0.35 mm²)**

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

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

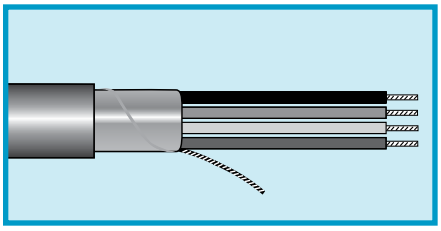
**20 AWG (0.56 mm²)**

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

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

# Manhattan™ Computer Cable

## 300 V Foil Shield, Multiconductor, PVC, PVC



**UL AWM 2464**
**UL CMG**
**CSA CMG FT4**

### Applications

- Control and signal wiring
- Computers
- Instrumentation

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

**20 AWG (0.56 mm²)**

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

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

**18 AWG (0.81 mm²)**

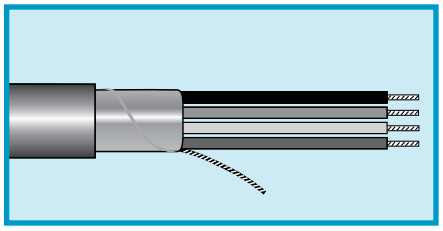
Stranding: 16/30 (16 x 0.25 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code D

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

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

# Manhattan™ Computer Cable

## 300 V Foil Shield, Multiconductor, PVC, PVC



**UL AWM 2464**
**UL CMG**
**CSA CMG FT4**

### Applications

- Control and signal wiring
- Computers
- Instrumentation

### Operating Temperature

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

### Conductor Color Coding

- See tables

### Materials

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

### Availability

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

**16 AWG (1.32 mm²)**

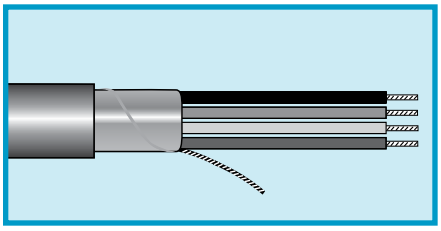
Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)
Color Code R

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

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

# Manhattan™ Computer Cable

## 300 V Foil Shield, Multiconductor, PVC, PVC



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

### Applications

- Sound broadcast
- Instrumentation

### Operating Temperature

- -20°C to +80°C

### Conductor Color Coding

- Chart R (page 535)

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

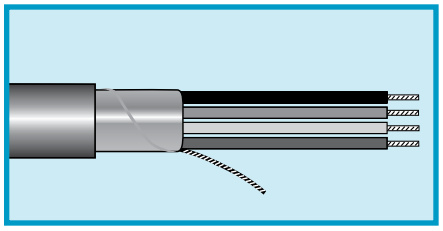
Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.010 (0.25 mm)

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

CA PROP 65 RoHS Compliant

# 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 |

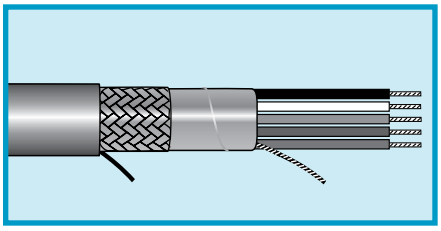
**22 AWG (0.35 mm²)**

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

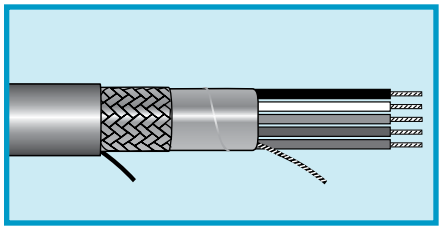
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M5302** | 2 | 0.181 | 4.60 | 0.032 | 0.81 |
| **M5303** | 3 | 0.188 | 4.78 | 0.032 | 0.81 |
| **M5304** | 4 | 0.199 | 5.05 | 0.032 | 0.81 |
| **M5306** | 6 | 0.226 | 5.74 | 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

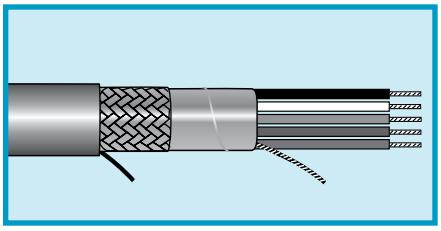
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M5333** | 2 | 0.193 | 4.90 | 0.032 | 0.81 |
| **M5334** | 3 | 0.201 | 5.11 | 0.032 | 0.81 |
| **M5335** | 4 | 0.214 | 5.44 | 0.032 | 0.81 |
| **M5336** | 6 | 0.244 | 6.20 | 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)**

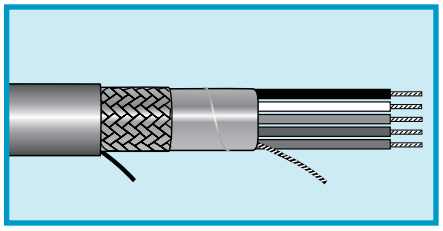
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)

| 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)**

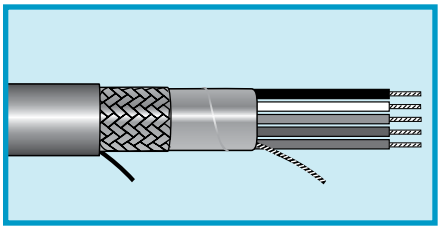
Stranding: 7/28 (7 x 0.32 mm)
Insulation thickness: 0.010 (0.25 mm)

| 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)**

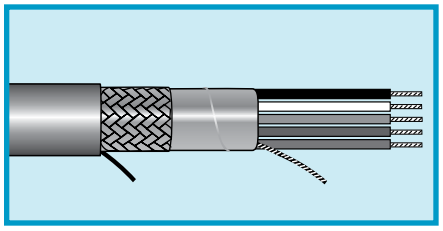
Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.016 (0.41 mm)

| 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)**

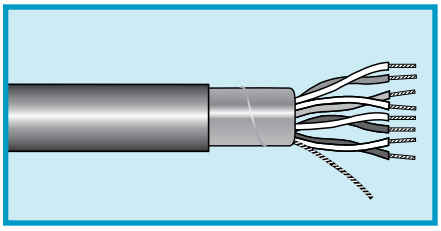
Stranding: 19/0.0117 (19 x 0.30 mm)
Insulation thickness: 0.016 (0.41 mm)

| 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 |

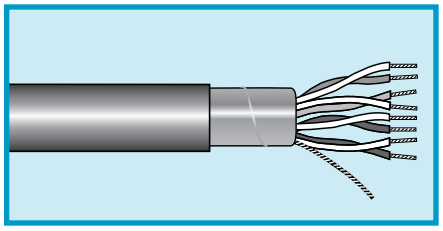
**18 AWG (0.81 mm²)**

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

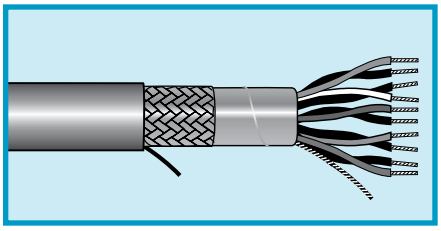
**22 AWG (0.35 mm²)**

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)

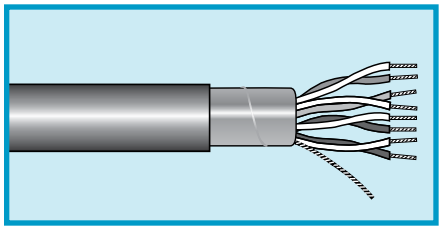
| Part No. | Pairs | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | Mm |
| **M5670** | 5 | 0.413 | 10.49 | 0.063 | 1.60 |
| **M5671** | 7 | 0.442 | 11.23 | 0.063 | 1.60 |
| **M5673** | 15 | 0.592 | 15.04 | 0.063 | 1.60 |
| **M5674** | 19 | 0.631 | 16.03 | 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 (170.6pF/m)

# Manhattan™ Computer Cable

## 300 V Foil Shield, Low Capacitance, 100 ohm, Multipair, FPP, PVC



**UL AWM 2493**
**UL CM**
**CSA CM FT4**

### Applications

- RS-232
- RS-422

### Operating Temperature

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

### Conductor Color Coding

- Chart K (page 529)

### Materials

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

### Availability

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

**24 AWG (0.22 mm²)**

Stranding: 7/32 (7 x 0.20 mm)
Insulation thickness: 0.0185 (0.47 mm)

| Part No. | Pairs | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M39249** | 2 | 0.323 | 8.20 | 0.048 | 1.22 |
| **M39250** | 3 | 0.340 | 8.64 | 0.048 | 1.22 |
| **M39251** | 4 | 0.369 | 9.37 | 0.048 | 1.22 |
| **M39252** | 6 | 0.436 | 11.07 | 0.048 | 1.22 |
| **M39254** | 9 | 0.506 | 12.85 | 0.048 | 1.22 |
| **M39256** | 11 | 0.580 | 14.73 | 0.065 | 1.65 |
| **M39257** | 12 | 0.597 | 15.16 | 0.065 | 1.65 |
| **M39259** | 15 | 0.646 | 16.41 | 0.065 | 1.65 |
| **M39260** | 17 | 0.682 | 17.32 | 0.065 | 1.65 |
| **M39262** | 19 | 0.693 | 17.60 | 0.065 | 1.65 |
| **M39268** | 27 | 0.821 | 20.85 | 0.065 | 1.65 |

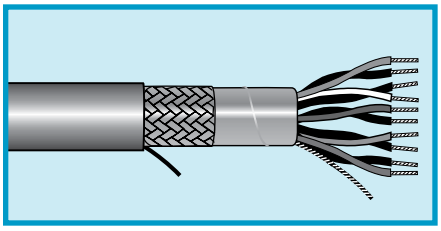
Mutual capacitance: 12.5 pF/ft (41 pF/m)
Ground capacitance: 23 pF/ft (75.5 pF/m)

Part No. 39256
Mutual capacitance: 11.9 pF/ft (39 pF/m)
Ground capacitance: 21.4 pF/ft (70.2 pF/m)

CA PROP 65 RoHS Compliant

# 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)

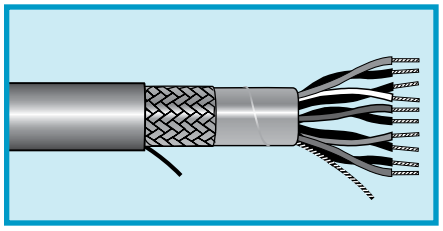
| Part No. | Pairs | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M3420** | 2 | 0.257 | 6.53 | 0.035 | 0.89 |
| **M3421** | 3 | 0.269 | 6.83 | 0.035 | 0.89 |
| **M3422** | 4 | 0.290 | 7.37 | 0.035 | 0.89 |
| **M3423** | 5 | 0.314 | 7.98 | 0.035 | 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)

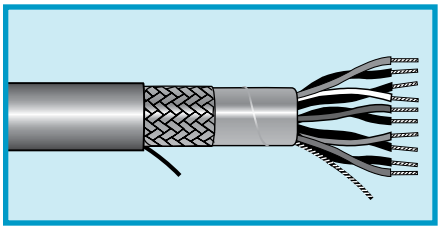
| Part No. | Pairs | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M3475** | 2 | 0.346 | 8.79 | 0.048 | 1.22 |
| **M3476** | 3 | 0.363 | 9.22 | 0.048 | 1.22 |
| **M3477** | 4 | 0.392 | 9.96 | 0.048 | 1.22 |
| **M3478** | 5 | 0.425 | 10.80 | 0.048 | 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)

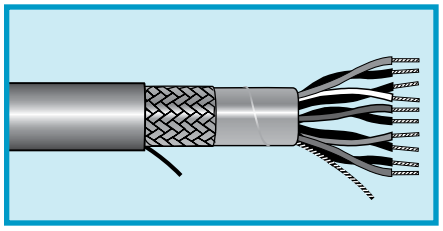
†120-ohm impedance
Mutual capacitance: 12.8 pF/ft (42 pF/m)
Ground capacitance: 23 pF/ft (75 pF/m)

*65% braid coverage.

CA PROP 65 RoHS Compliant

# 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 | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Mutual | | Ground | |
| | | Inch | mm | Inch | mm | 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)**

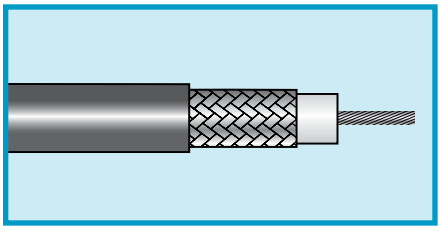
Stranding: 7/30 (7 x 0.25 mm)
Insulation thickness: 0.010 (0.25 mm)
Color Code A

| Part No. | Pairs | Nominal Diameter | | Jacket Thickness | | Capacitance | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Mutual | | Ground | |
| | | Inch | mm | Inch | mm | 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 (mm²) | 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) |

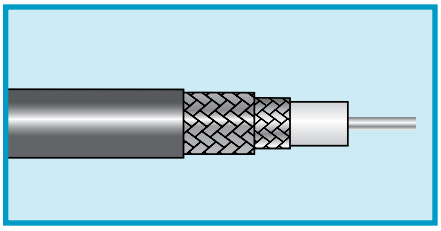
RoHS Compliant

# Manhattan™ Coaxial Cable

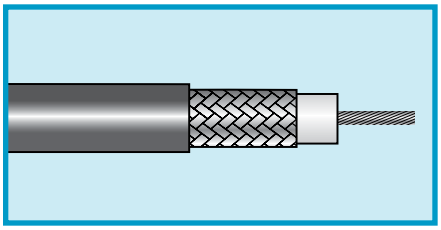
| 50-Ohm Transmission and Computer Cables | | | | | |
|---|---|---|---|---|---|
| RG-55B/U, RG-58/U, RG-58A/U, and RG-58C/U Coaxial Cables | | | | | |
| **Part No.** | **Nom. Impedance (Ω)** | **Vp (%)** | **Capacitance, pF/ft (pF/m)** | **Specifications** | **Availability** |
| **9058** | 53 | 66 | 28.5 (93.5) | UL AWM 1354<br>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<br>JAN-C-17A/RG-58A/U Type | A, B, D, E |
| **9058C** | 50 | 66 | 30.8 (101.1) | MIL-DTL-17/28B<br>RG 58C/U | A, B, D, E |
| **9058X** | 53.5 | 66 | 28.5 (93.5) | UL AWM 1354<br>UL CL2<br>JAN-C-17A/RG-58/U | A, B, C, D, E |
| **9158S** | 50 | 70 | 30 (98.4) | UL CL2P<br>CSA CMP FT6<br>MIL-DTL-17/28 RG-58/U Type | B, D |
| **M4210** | 52 | 76 | 26 (85.3) | UL AWM 1354<br>UL CM<br>CSA CM<br>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<br>CSA CM<br>JAN-C-17A/RG-58A/U Type | A, B, D |
| **M44209** | 53 | 69.5 | 26.4 (86.6) | UL CMP<br>CSA CMP FT6<br>MIL-DTL-17/RG-58/U Type | A, B, D, G |
| **9848** | 50 | 78 | 26 (85.3) | UL AWM 1354<br>MIL-DTL-17/28B RG-58/U Type | A, B, D, E |

RoHS Compliant

# Manhattan™ Coaxial Cable



| 50-Ohm Transmission and Computer Cables | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RG-55B/U Coaxial Cables | | | | | | | | |
| Part No. | Center Conductor | | | Dielectric | | Shield Material, Coverage | Jacket | |
| | AWG (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., In. (mm) |
| **9055B** | 20 (0.52) | Solid | SPC | PE | 0.116 (2.95) | 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 (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., In. (mm) |
| **9008** | 13 (2.90) | 7/21 (7 x 0.72) | BC | PE | 0.285 (7.24) | BC Braid, 94% | Black Type I PVC | 0.405 (10.29) |
| **M4201** | 13 (2.90) | 7/21 (7 x 0.72) | BC | PE | 0.285 (7.24) | BC Braid, 95% | Black Type IIA PVC | 0.405 (10.29) |
| **M4206** | 11 (4.60) | 7/19 (7 x 0.91) | BC | Foam PE | 0.285 (7.24) | BC Braid, 96% | Black PVC | 0.403 (10.24) |

RoHS Compliant

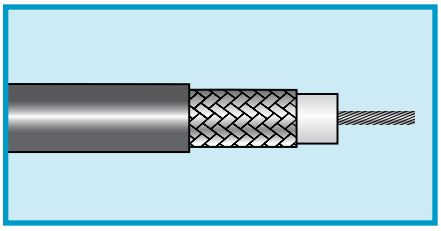
# Manhattan™ Coaxial Cable

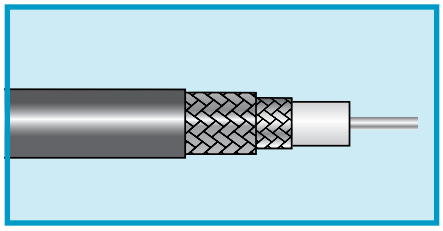
| 50-Ohm Transmission and Computer Cables | | | | | |
|---|---|---|---|---|---|
| RG-55B/U Coaxial Cables | | | | | |
| **Part No.** | **Nom. Impedance (Ω)** | **Vp (%)** | **Capacitance, pF/ft (pF/m)** | **Specifications** | **Availability** |
| **9055B** | 53.5 | 66 | 28.8 (94.5) | MIL-DTL-17D/26A 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<br>UL CMX<br>CSA CMX<br>MIL-DTL-17D/3A RG-8A/U | A, B, D |
| **M4206** | 50 | 78 | 26 (85.3) | UL AWM 1354<br>UL CM<br>CSA CM<br>MIL-DTL-17/RG-8/U Type | A, B, D |

RoHS Compliant

# 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 (mm²) | 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) |

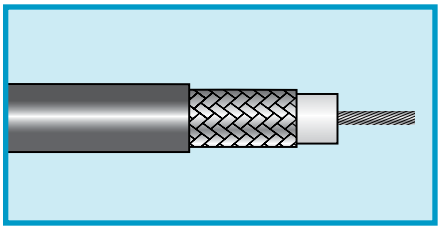
RoHS Compliant

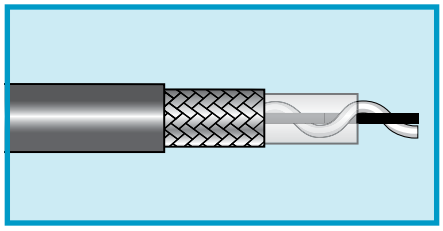
# Manhattan™ Coaxial Cable

| 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<br>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<br>CSA CMX FT4<br>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<br>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 |

RoHS Compliant

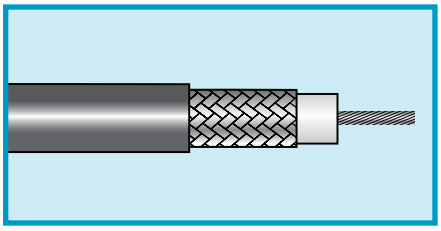
# Manhattan™ Coaxial Cable

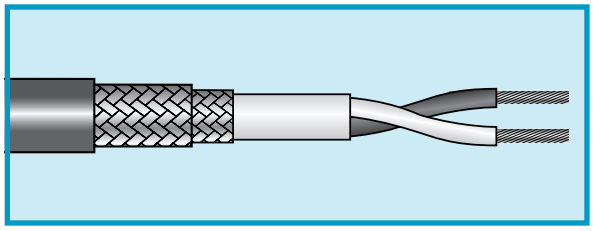




| 93-Ohm Coaxial Cables | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RG-62A/U, RG-22B/U Coaxial Cables | | | | | | | | |
| Part No. | Center Conductor | | | Dielectric | | Shield Material, Coverage | Jacket | |
| | AWG (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., In. (mm) |
| **9062A** | 22 (0.32) | Solid | BCW | Semisolid PE | 0.146 (3.71) | BC Braid, 95% | Black Type IIA PVC | 0.242 (6.15) |
| **9062AC** | 22 (0.32) | Solid | BCW | Semisolid PE | 0.146 (3.71) | BC Braid, 95% | Black Type IIA PVC* | 0.242 (6.15) |
| **M4276** | 22 (0.32) | Solid | BCW | Semisolid PE | 0.146 (3.71) | BC Braid, 95% | Black Type IIA PVC | 0.239 (6.07) |
| **M44276** | 22 (0.32) | Solid | BCW | Semisolid FEP | 0.142 (3.61) | BC Braid, 94% | White Plenum PVC | 0.202 (5.13) |
| **M44276F** | 22 (0.32) | Solid | BCW | Foam FEP | 0.146 (3.71) | BC Braid, 94% | White Plenum PVC | 0.204 (5.18) |

*Also available in white, green, blue, orange, yellow, and slate.





| 95-Ohm Coaxial Cables | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RG-180B/U Coaxial, RG-22B/U Twinax Cables | | | | | | | | |
| Part No. | Center Conductor | | | Dielectric | | Shield Material, Coverage | Jacket | |
| | AWG (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., In. (mm) |
| **9180B** | 30 (0.05) | 7/38 (7 x 0.10) | SCW | PTFE | 0.102 (2.59) | SPC Braid, 91% | Natural Tan FEP | 0.141 (3.58) |
| **M4203** | 18 (0.87) | 7/0.0152 (7 x 0.39) | BC* | PE | 0.090 (2.85) | Dbl TC Braid, 95% | Black Type IIA PVC | 0.420 (10.67) |

*For identification, one conductor includes a single tinned copper strand.

RoHS Compliant

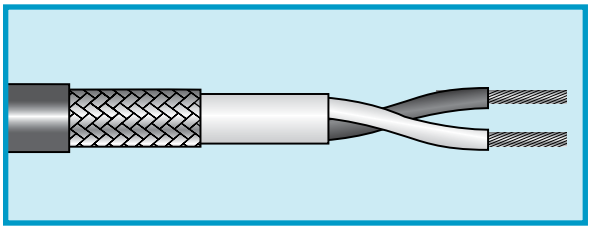
# Manhattan™ Coaxial Cable

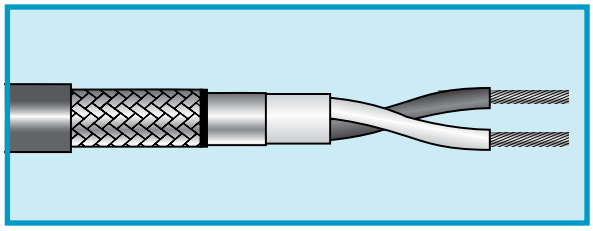
| 93-Ohm Coaxial Cables | | | | | |
|---|---|---|---|---|---|
| RG-62A/U, RG-22B/U Coaxial Cables | | | | | |
| **Part No.** | **Nom. Impedance (Ω)** | **Vp (%)** | **Capacitance, pF/ft (pF/m)** | **Specifications** | **Availability** |
| **9062A** | 93 | 83 | 13.2 (43.3) | UL AWM 1478<br>MIL-DTL-17/30B RG-62A/U | A, B, D, E, F |
| **9062AC** | 93 | 83 | 13.5 (44.3) | UL AWM 1478<br>UL CL2<br>CSA CMH<br>MIL-DTL-17/30B RG-62A/U | A, B, D, E, F |
| **M4276** | 93 | 84 | 13.5 (44.3) | UL AWM 1478<br>UL CL2<br>UL CM<br>CSA CM<br>MIL-DTL-17/RG-62A/U Type | A, B, D, G |
| **M44276** | 93 | 85 | 12.8 (42) | UL CMP<br>CSA CMP<br>MIL-DTL-17/RG-62A/U Type | A, B, D, G |
| **M44276F** | 93 | 85 | 12.5 (41) | UL CMP<br>CSA CMP<br>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<br>MIL-DTL-17/RG-22B/U Type | A, B, D, G |

RoHS Compliant

# Manhattan™ Coaxial Cable

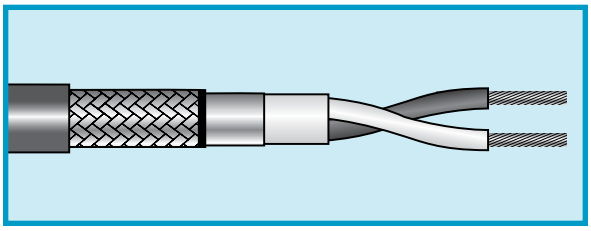




| Twinax Cables | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 78-Ohm Twinax Cables | | | | | | | | | |
| Part No. | Center Conductor | | | Dielectric | | Shield Material, Coverage | Jacket | |
| | AWG (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., 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 (mm²) | 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 (mm²) | 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) |

RoHS Compliant

# Manhattan™ Coaxial Cable

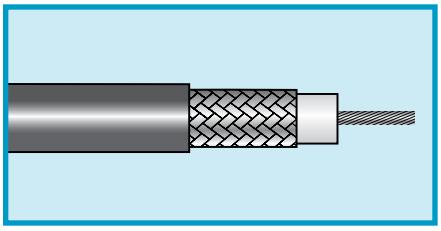
| Twinax Cables | | | | | |
|---|---|---|---|---|---|
| 78-Ohm Twinax Cables | | | | | |
| **Part No.** | **Nom. Impedance (Ω)** | **Vp (%)** | **Capacitance, pF/ft (pF/m)** | **Specifications** | **Availability** |
| **9888C** | 78 | 66 | 19.7 (64.6) | UL AWM 2726<br>UL CM<br>CSA CMG FT4 | D, E |
| **9108** | 78 | 69.5 | 18.4 (60.4) | UL CMP<br>CSA CMP | B, D |
| **M4154** | 78 | 66 | 19.7 (64.6) | UL AWM 2464<br>UL CM<br>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<br>UL CL2P<br>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<br>UL CL2<br>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<br>UL CMX<br>CSA CMX | A, B, D, G |

RoHS Compliant

# 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) |

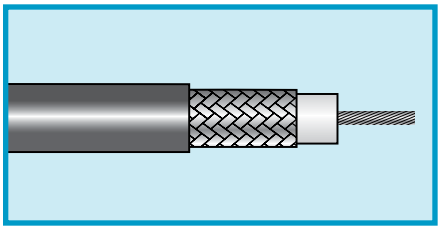
RoHS Compliant

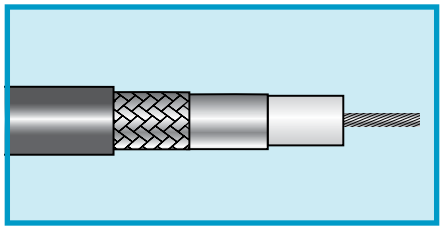
# Manhattan™ Coaxial Cable

| 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<br>CSA CMH | A, B, D, G |
| **M4244** | 75 | 66 | 20.5 (67.3) | UL AWM 1354 | A, B, D, G |

RoHS Compliant

# Manhattan™ Coaxial Cable





| 75-Ohm Video Cable | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RG-59/U, RG-59B/U Coaxial Cables | | | | | | | | |
| Part No. | Center Conductor | | | Dielectric | | Shield Material, Coverage | Jacket | |
| | AWG (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., In. (mm) |
| **9059B** | 23 (0.26) | Solid | BCW | PE | 0.146 (3.71) | BC Braid, 94% | Black Type IIA PVC | 0.242 (6.15) |
| **9159** | 23 (0.26) | Solid | BCW | FEP | 0.132 (3.35) | BC Braid, 95% | Black PVDF | 0.190 (4.83) |
| **9810** | 23 (0.26) | Solid | BC | PE | 0.146 (3.71) | A/P/A Tape TC Braid, 95% | Black Type IIIA PE | 0.220 (5.59) |
| **M4223** | 23 (0.26) | Solid | BCW | PE | 0.146 (3.71) | BC Braid, 94% | Black Type IIA PVC | 0.241 (6.12) |
| **9059** | 22 (0.32) | Solid | BCW | PE | 0.146 (3.71) | BC Braid, 95% | Black, White, Slate Type I PVC | 0.242 (6.15) |
| **9059C** | 22 (0.32) | Solid | BCW | PE | 0.146 (3.71) | BC Braid, 95% | Black, Red, Blue, Green, Slate Type I PVC | 0.242 (6.15) |
| **9830** | 22 (0.32) | Solid | BCW | PE | 0.146 (3.71) | BC Braid, 85% | Black Type I PVC | 0.242 (6.15) |
| **M4212** | 22 (0.32) | Solid | BCW | Foam PE | 0.146 (3.71) | BC Braid, 85% | Black Type I PVC | 0.242 (6.15) |
| **M4237** | 22 (0.35) | 7/30 (7 x 0.25) | BC | Foam PE | 0.146 (3.71) | BC Braid, 95% | Black Type I PVC | 0.240 (6.10) |
| **M44212F** | 20 (0.52) | Solid | BCW | Foam FEP | 0.140 (3.56) | A/P/A Tape TC Braid, 94% | White Plenum PVC | 0.202 (5.13) |
| **9102** | 20 (0.52) | Solid | BCW | Foam FEP | 0.140 (3.56) | A/P/A Tape TC Braid, 94% | Black PVDF | 0.212 (5.38) |

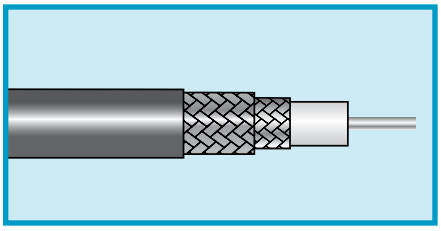
RoHS Compliant

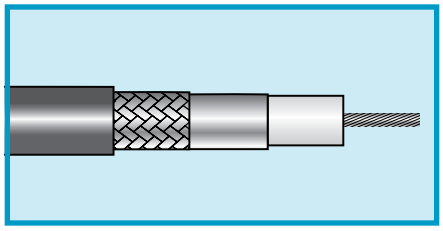
# Manhattan™ Coaxial Cable

| 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<br>CSA CMH FT1<br>MIL-DTL-17D/29B RG-59B/U | A, B, C, D, E |
| **9159** | 75 | 69.5 | 19.5 (64) | UL CL2P<br>UL CMP<br>CSA CMP FT6<br>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<br>UL CMX<br>CSA CMX<br>MIL-DTL-17D/29B RG-59B/U | A, B, D |
| **9059** | 73 | 66 | 21 (68.9) | UL AWM 1354<br>JAN-C-17A/RG-59/U | A, B, D |
| **9059C** | 73 | 66 | 21 (68.9) | UL AWM 1354<br>UL CL2<br>CSA CMG FT4<br>JAN-C-17A /RG-59/U | A, B, C, D, E |
| **9830** | 75 | 66 | 21.5 (70.5) | UL AWM 1354<br>UL CMX<br>CSA CMX<br>JAN-C-17A/RG-59/U | A, B, D |
| **M4212** | 80 | 78 | 16.3 (53.5) | UL AWM 1354<br>UL CM<br>CSA CM<br>JAN-C-17A/RG-59/U | A, B, D |
| **M4237** | 75 | 78 | 17.3 (56.8) | UL AWM 1354<br>UL CM<br>CSA CM<br>MIL-DTL-17/RG-59/U Type | A, B, D |
| **M44212F** | 75 | 82 | 16.5 (54.1) | UL CMP<br>UL CATVP<br>CSA CMP FT6<br>MIL-DTL-17/RG-59/U Type | A, B, D, G |
| **9102** | 75 | 82 | 16.5 (54.1) | UL CMP<br>UL CL2P<br>CSA CMP FT6<br>MIL-DTL-17/RG-59U Type | B, D |

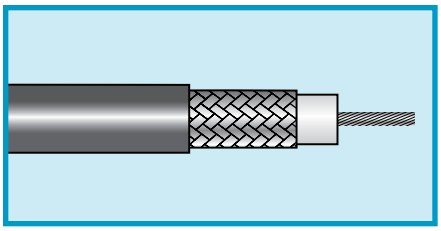
RoHS Compliant

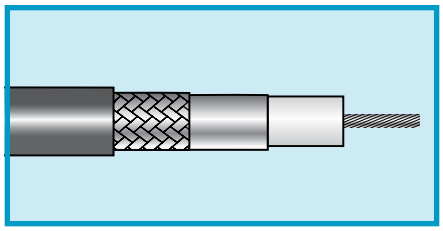
# Manhattan™ Coaxial Cable





| 75-Ohm Video Cable | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RG-6U Type, RG-6A/U Type | | | | | | | | |
| Part No. | Center Conductor | | | Dielectric | | Shield Material, Coverage | Jacket | |
| | AWG (mm²) | 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 (mm²) | 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) |

RoHS Compliant

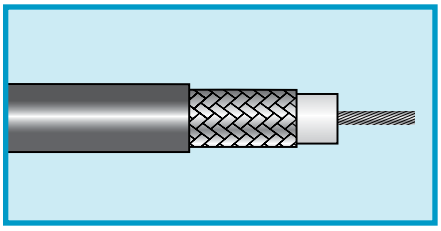
# Manhattan™ Coaxial Cable

| 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<br>UL CATVP<br>CSA CMP FT6<br>MIL-DTL-17/RG-6U Type | B, D |
| **M4182** | 75 | 82 | 16.2 (53.1) | UL AWM 1354<br>UL CM<br>CSA CM<br>MIL-DTL-17/ RG 6/U Type | A, B, D |

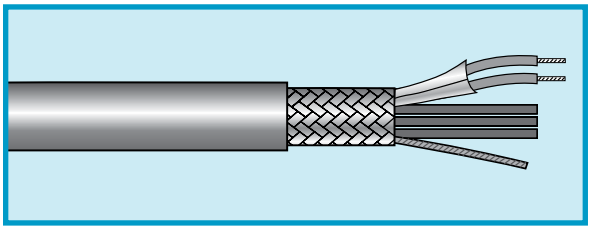
| 75-Ohm Video Cable | | | | | |
|---|---|---|---|---|---|
| RG-11/U, RG-11/U Type, RG-11A/U | | | | | |
| **Part No.** | **Nom. Impedance (Ω)** | **Vp (%)** | **Capacitance, pF/ft (pF/m)** | **Specifications** | **Availability** |
| **9011A** | 75 | 66 | 20.5 (67.3) | UL CL2X<br>CSA CMH FT1<br>MIL-DTL-17D/6B RG 11A/U | A, B, D |
| **M4207** | 75 | 66 | 20.5 (67.3) | UL CM<br>CSA CM<br>JAN-C-17A/ RG 11/U | A, B, D |
| **9105** | 75 | 83 | 16.3 (53.5) | UL CMP<br>UL CL2P<br>UL CATVP<br>CSA CMP FT6<br>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 |

RoHS Compliant

# Manhattan™ Coaxial Cable



| 75-Ohm Video Cables | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| RG-179B/U and RG-187A/U Coaxial Cables | | | | | | | | |
| Part No. | Center Conductor | | | Dielectric | | Shield Material, Coverage | Jacket | |
| | AWG (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | | Material | Dia., In. (mm) |
| **9179B** | 30 (0.05) | 7/38 (7 x 0.10) | SCW | PTFE | 0.063 (1.60) | SPC Braid, 93% | Natural Tan FEP | 0.100 (2.54) |
| **9187A** | 30 (0.05) | 7/38 (7 x 0.10) | SCW | PTFE | 0.063 (1.60) | SPC Braid, 93% | Natural PTFE Tape | 0.105 (2.67) |



| Ethernet Transceiver Cables | | | | | | | |
|---|---|---|---|---|---|---|---|
| Part No. | Pairs | | | | Dielectric | | Shield Material, Coverage |
| | Type | AWG (mm²) | Stranding (mm) | Material | Material | Dia., In. (mm) | |
| **9852C** | Data (3) | 22 (0.35) | 7/30 (7 x 0.25) | TC | Foam HDPE | 0.064 (1.63) | A/P (pairs) A/P/A (overall) TC Braid, 95% |
| | Power (1) | 20 (0.56) | 7/28 (7 x 0.32) | TC | SR-PVC | 0.058 (1.47) | |
| **9853C** | Data (3) | 20 (0.56) | 7/28 (7 x 0.32) | TC | Foam HDPE | 0.077 (1.96) | A/P (pairs) A/P (overall) TC Braid, 95% |
| | Power (1) | 20 (0.56) | 7/28 (7 x 0.32) | TC | SR-PVC | 0.058 (1.47) | |
| **9854C** | Data (3) | 28 (0.08) | 7/36 (7 x 0.12) | TC | PP | 0.033 (0.84) | A/P (pairs) A/P/A (overall) TC Braid, 90% |
| | Power (1) | 24 (0.23) | 7/32 (7 x 0.20) | TC | SR-PVC | 0.044 (1.12) | |

### Key to Abbreviations

| | |
|---|---|
| **A/P** | Aluminum/polyester |
| **A/P/A** | Aluminum/polyester/aluminum |
| **BC** | Bare copper |
| **BCW** | Bare copper-coated steel |
| **FEP** | Fluorinated ethylene propylene |
| **HDPE** | High-density polyethylene |
| **PE** | Polyethylene |
| **PP** | Polypropylene |
| **PTFE** | Polytetrafluoroethylene |
| **PVC** | Polyvinyl chloride |
| **PVDF** | Polyvinylidene fluoride |
| **SCW** | Silver-coated, copper-coated steel |
| **SPC** | Silver-plated copper |
| **SR-PVC** | Semirigid PVC |
| **TC** | Tinned copper |

### Color Coding

| Conductor | Color Code | |
|---|---|---|
| | 9852C, 9853C | 9854C |
| Data 1 | Green-Blue | White-Gray |
| Data 2 | Yellow-Orange | Yellow-Orange |
| Data 3 | White-Brown | Green-Blue |
| Power | Blue-Red | Black-Red |

RoHS Compliant

# Manhattan™ Coaxial Cable

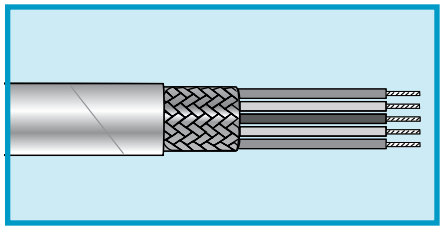
| 75-Ohm Video Cables | | | | | |
|---|---|---|---|---|---|
| RG-179B/U and RG-187A/U Coaxial Cables | | | | | |
| **Part No.** | **Nom. Impedance (Ω)** | **Vp (%)** | **Capacitance, pF/ft (pF/m)** | **Specifications** | **Availability** |
| **9179B** | 75 | 70 | 19.5 (64) | MIL-DTL-17/RG-179B/U | A, 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<br>UL CM<br>CSA CMG FT4 | D |
| **9853C** | Slate PVC | 0.401(10.19) | 78 | 78 | 16.7 (54.8) | UL CM<br>CSA CMG FT4 | D |
| **9854C** | Slate PVC | 0.250 (6.35) | 78 | 66 | 19.7 (64.6) | UL AWM 2919<br>UL CM<br>CSA CMG FT4 | D |

RoHS Compliant

# 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)**

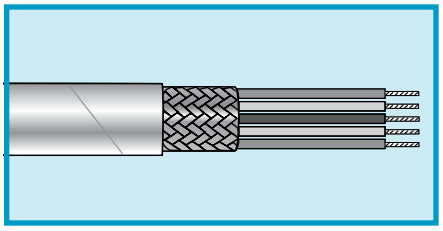
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.011 (0.28 mm)

| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **18RC2S06** | 2 | 0.180 | 4.57 | 0.010 | 0.25 |

CA PROP 65 RoHS Compliant

# 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)**

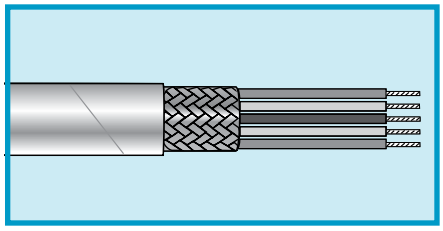
Stranding: 19/30 (19 x 0.25 mm)
Insulation thickness: 0.012 (0.30 mm)

| 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 |

CA PROP 65 RoHS Compliant

# 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)

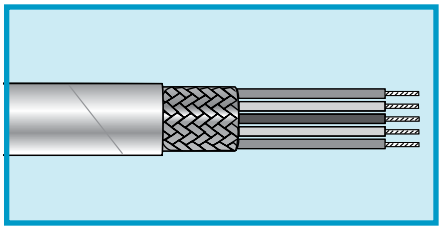
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **M1231** | 1 | 0.100 | 2.54 | 0.010 | 0.25 |
| **M1232** | 2 | 0.158 | 4.01 | 0.012 | 0.30 |
| **M1233*** | 3 | 0.171 | 4.34 | 0.010 | 0.25 |
| **M1234** | 4 | 0.186 | 4.72 | 0.012 | 0.30 |

*NEMA HP3-EXBJE.

CA PROP 65 RoHS Compliant

# 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)**

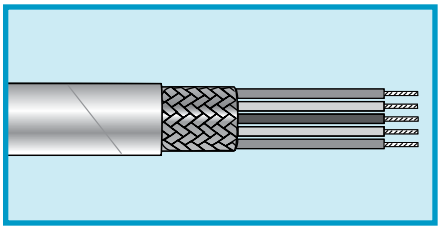
Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.012 (0.30 mm)

| 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 |

CA PROP 65 RoHS Compliant

# 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)**

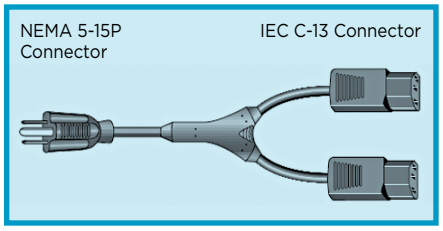
Stranding: 19/29 (19 x 0.29 mm)
Insulation thickness: 0.012 (0.030 mm)

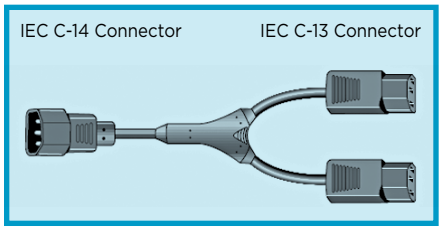
| Part No. | Conductors | Nominal Diameter | | Jacket Thickness | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **71602** | 2 | 0.206 | 5.23 | 0.012 | 0.30 |

CA PROP 65 RoHS Compliant

# 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 | mm² | 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

NEMA 5-15P
Connector

**SJ, SJT, SVT**
**UL 62 and 817**
**CSA C22.2 No. 21 and 49**

### Operating Temperature

- -20°C to +60°C

### Conductor Color Coding

- Black, white, green or green/yellow (NEC)
- Blue, brown, green/yellow (ICC)

### Materials

- Stranded bare copper conductors
- PVC or rubber insulation
- Aluminum/polyester foil shield (where specified)
  Foil facing inward
  22 AWG (0.35 mm²) tinned copper drain wire
- Black PVC, rubber, or neoprene jacket (slate where marked)

### Availability

25-piece packages
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 | mm² | 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 | mm² | 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

RoHS Compliant

# Manhattan™ Cordsets

## 125 V Power Cords
## 3-Conductor

NEMA 5-15P
Connector

**SJ, SJT, SVT**
**UL 62 and 817**
**CSA C22.2 No. 21 and 49**

### Operating Temperature

- -20°C to +60°C

### Conductor Color Coding

- Black, white, green or green/yellow (NEC)
- Blue, brown, green/yellow (ICC)

### Materials

- Stranded bare copper conductors
- PVC or rubber insulation
- Aluminum/polyester foil shield (where specified)
  Foil facing inward
  22 AWG (0.35 mm²) tinned copper drain wire
- Black PVC, rubber, or neoprene jacket (slate where marked)

### Availability

25-piece packages
(Minimums may apply)

**Rubber Jacket, Rubber Insulation, Unshielded, SJ**
**Leads: Jacket Stripped 1.5" (38 mm). Leads Stripped 5/8" (16 mm)**

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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 | mm² | 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 | mm² | 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 |

UL LISTED CSA RoHS Compliant

# Manhattan™ Cordsets

## 125 V Electronic Line Cords
## 3-Conductor

IEC C-13 Connector

IEC C-13 Right-Angle Connector

**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 | mm² | 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)**

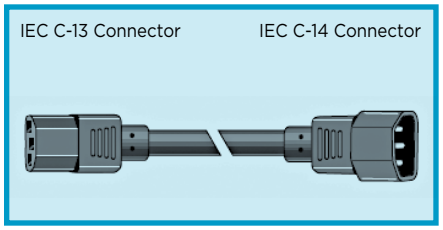
| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | AWG | mm | Inch | mm | Watts | Amps |
| **521F** | 6' 7" | 2 | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.380 | 9.65 | 1825 | 15 |

**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 | mm² | 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**

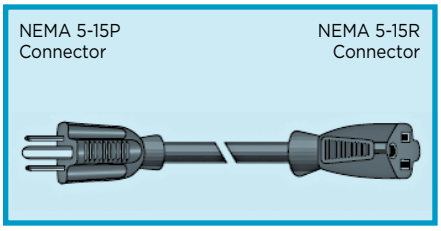
| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | AWG | mm | Inch | mm | Watts | Amps | |
| **551** | 3' 3" | 1 | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.300 | 7.62 | 1250 | 10 | ICC |

**PVC, Shielded, Type SVT**

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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

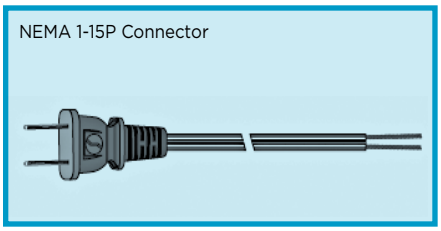
## 125 V Jumper Cords
## NEMA and IEC Connectors




### Extension Cords

**Rubber, Unshielded, Type SJ**

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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

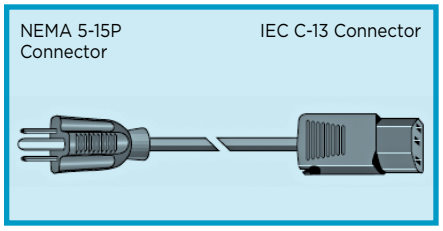
**PVC, Unshielded, Type SPT-1**
**Leads: Conductors Split 1” (25.4 mm) and Stripped 5/8” (16 mm)**

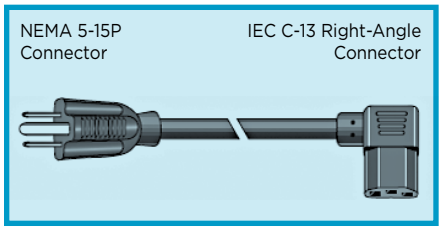
| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Dimension | | Power Rating | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | AWG | mm | Inch | mm | Watts | Amps |
| **601B*** | 6’ 0” | 1.8 | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.110 x 0.220 | 2.79 x 5.69 | 1250 | 10 |

*100-piece packages.

# Manhattan™ Cordsets

## 125 V Detachable Power Supply Cords
## 3-Conductor




**SJT, SVT**
**UL 62 and 817**
**CSA C22.2 No. 21 and 49**

### Operating Temperature

- -20°C to +60°C

### Conductor Color Coding

- Blue, brown, green/yellow (ICC)
- Black, white, green or green/yellow (NEC)

### Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield
  Foil facing inward
  Tinned copper drain wire
  (see tables for size)
- Black PVC jacket

### Availability

25-piece packages
B suffix = 100-piece packages
(Minimums may apply)

**Unshielded, Straight, Types SVT and SJT**

| Part No. | | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 pc | 100 pc | Ft | m | AWG | mm² | AWG | mm | Inch | mm | Watts | Amps | |
| | | | | | | Type SVT | | | | | | |
| **545** | **545B** | 7' 5" | 2.3 | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.250 | 6.35 | 1250 | 10 | NEC |
| **535** | **535B** | 7' 5" | 2.3 | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.250 | 6.35 | 1250 | 10 | NEC |
| | | | | | | Type SJT | | | | | | |
| **531** | **531B** | 6' 7" | 2 | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.330 | 8.38 | 1250 | 10 | NEC |
| **532** | **532B** | 9' 10" | 3 | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.330 | 8.38 | 1250 | 10 | NEC |
| **533** | **—** | 6' 7" | 2 | 16 | 1.32 | 65/34 | 65 x 0.16 | 0.350 | 8.89 | 1625 | 13 | ICC |
| **546** | **—** | 7' 5" | 2.3 | 16 | 1.32 | 65/34 | 65 x 0.16 | 0.350 | 8.89 | 1625 | 13 | ICC |
| **534** | **534B** | 9' 10" | 3 | 16 | 1.32 | 65/34 | 65 x 0.16 | 0.331 | 8.41 | 1625 | 13 | NEC |

**Shielded, Straight, Types SVT and SJT**

| Part No. | Cord Length | | Wire Size | | Stranding | | Drain Wire* | Nominal Diameter | | Power Rating | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | AWG | mm | | Inch | mm | Watts | Amps | |
| | | | | | Type SVT | | | | | | | |
| **547F** | 6' 7" | 2 | 18 | 0.82 | 41/34 | 41 x 0.16 | A | 0.260 | 6.60 | 1250 | 10 | ICC |
| **548F** | 9' 10" | 3 | 18 | 0.82 | 41/34 | 41 x 0.16 | A | 0.260 | 6.60 | 1250 | 10 | ICC |
| | | | | | Type SJT | | | | | | | |
| **531F** | 6' 7" | 2 | 18 | 0.82 | 41/34 | 41 x 0.16 | B | 0.317 | 8.05 | 1250 | 10 | ICC |
| **532F** | 9' 10" | 3 | 18 | 0.82 | 41/34 | 41 x 0.16 | B | 0.317 | 8.05 | 1250 | 10 | ICC |
| **536F** | 9' 10" | 3 | 14 | 2.08 | 41/30 | 41 x 0.25 | C | 0.400 | 10.16 | 1875 | 15 | ICC |

*Drain Wire:
A = 22 AWG (mm2), 7/30 (7 x 0.25 mm) stranding.
B = 18 AWG (0.82 mm2), 41/34 (41 x 0.16 mm) stranding.
C = 14 AWG (2.08 mm2), 41/30 (41 x 0.25 mm) stranding.

RoHS Compliant

# 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 | mm² | 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 | mm² | 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.

NEMA 5-15P Connector

### Unshielded, Straight, Type SVT

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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

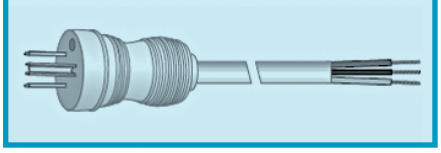
### Materials

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

### Availability

25-piece packages
(Minimums may apply)

NEMA 5-15P Connector

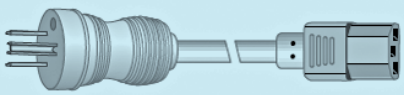


**Leads: Jacket Stripped 2" (50 mm). Leads Stripped 5/8" (16 mm)**

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Ratings | | Colors | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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 |

NEMA 5-15P Connector

IEC C-13 Connector

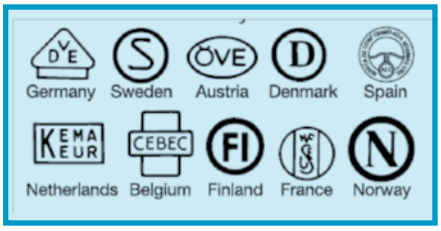


| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Ratings | | Colors | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | AWG | mm | Inch | mm | Watts | Amps | Jacket | Plug | Recept. |
| **820** | 10' 0" | 3.0 | 18 | 1.20 | 43/34 | 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 |

RoHS Compliant

# 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

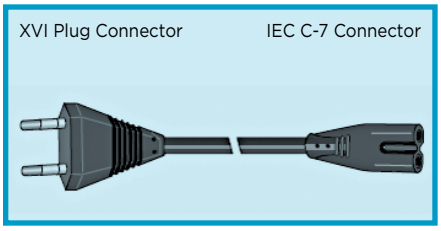
### Materials

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

### Availability

25-piece packages
(Minimums may apply)

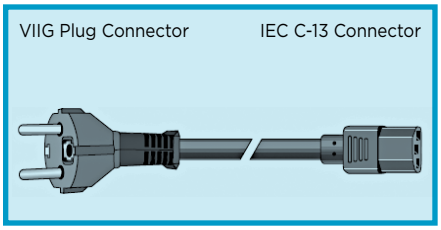
XVI Plug Connector — IEC C-7 Connector



**2-Conductor Unshielded. Cordage Type HO3VVH2F2XO.75**

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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 |

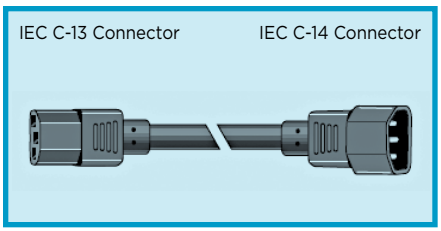
VIIG Plug Connector — IEC C-13 Connector



**3-Conductor Unshielded. Cordage Type HO5VVF3G1.00**

| | Ft | m | AWG | mm² | AWG | mm | Inch | mm | Watts | Amps |
|---|---|---|---|---|---|---|---|---|---|---|
| | 8' 2" | 2.5 | 16 | 1.00 | 31/32 | 31 x 0.20 | 0.268 | 6.81 | 2500 | 2.5 |

IEC C-13 Connector — IEC C-14 Connector



**3-Conductor Unshielded. Cordage Type HARSJT3X18AWG**

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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 |

RoHS Compliant

# Manhattan™ Cordsets

## 250 V Power Supply Cords, 3-Conductor Australia

### SAA

#### Operating Temperature

- -15°C to +70°C

#### Conductor Color Coding

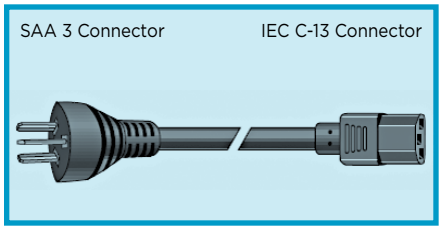
- Blue, brown, yellow/green

#### Materials

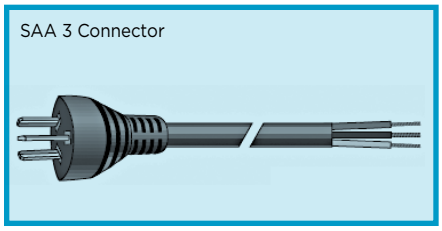
- Stranded bare copper conductors
- PVC insulation
- Black PVC jacket
- Cord Type: HO5VVF3G1.00

#### Availability

25-piece packages
(Minimums may apply)




| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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 |



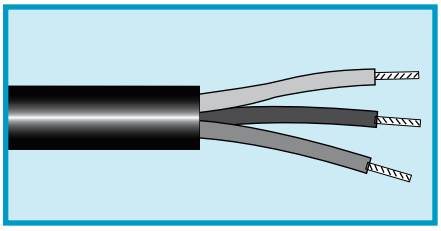

**Leads: Jacket Stripped 30 mm (1.2”). Leads Stripped 6 mm (0.24”)**

| Part No. | Cord Length | | Wire Size | | Stranding | | Nominal Diameter | | Power Rating | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Ft | m | AWG | mm² | 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 |

RoHS Compliant

# 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 | mm² | 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**

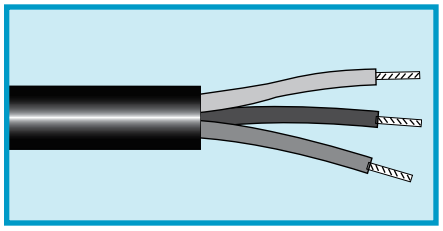
| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Jacket Thickness | | Cable Dimension | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AWG | mm² | AWG | mm | Inch | mm | Inch | mm | Inch | mm |
| **Type SJOW, 300 V** | | | | | | | | | | |
| **1932/3** | 18 | 0.81 | 16/30 | 16 x 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 | mm² | AWG | mm | Inch | mm | Inch | mm | Inch | mm |
| **1934/4** | 18 | 0.81 | 16/30 | 16 x 0.25 | 0.031 | 0.79 | 0.065 | 1.65 | 0.400 | 10.16 |
| **1935/4** | 16 | 1.32 | 26/30 | 26 x 0.25 | 0.031 | 0.79 | 0.065 | 1.65 | 0.437 | 11.10 |
| **1936/4** | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.048 | 1.22 | 0.085 | 2.16 | 0.589 | 14.96 |
| **1937/4** | 12 | 3.29 | 65/30 | 65 x 0.25 | 0.050 | 1.27 | 0.100 | 2.54 | 0.674 | 17.12 |
| **1938/4** | 10 | 5.32 | 105/30 | 105 x 0.25 | 0.050 | 1.27 | 0.100 | 2.54 | 0.735 | 18.67 |

# Manhattan™ Cordsets

## 300 V 3-Conductor Cordage
## PVC



**SJT, SVT**
**UL 62**
**CSA C22.2 No. 49**

### Operating Temperature

- -30°C to +105°C

### Conductor Color Coding

- Black, white, green/yellow (NEC)
- Blue, brown, green/yellow (IEC 60446)

### Materials

- Stranded bare copper conductors
- PVC insulation
- Aluminum/polyester foil shield
  Foil facing inward
  Tinned copper drain wire one even AWG size smaller than conductor
- Black or slate PVC jacket

### Availability

250 ft (76.2 m)
(Minimums may apply)

### 3-Conductor Cords (Unshielded)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Jacket Thickness | | Cable Dimension | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG | mm² | AWG | mm | Inch | mm | Inch | mm | Inch | mm | |
| | | | | | Type SJT | | | | | | |
| **1952/3T** | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.032 | 0.81 | 0.032 | 0.81 | 0.309 | 7.85 | NEC |
| **1953/3T** | 16 | 1.32 | 65/34 | 65 x 0.16 | 0.032 | 0.81 | 0.032 | 0.81 | 0.335 | 8.51 | NEC |
| | | | | | Type SVT | | | | | | |
| **1951/3T** | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.016 | 0.41 | 0.032 | 0.81 | 0.241 | 6.12 | NEC |
| | | | | | Type SJT | | | | | | |
| **1941/3*** | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.032 | 0.81 | 0.032 | 0.81 | 0.310 | 7.87 | IEC |
| **1942/3*** | 16 | 1.32 | 65/34 | 65 x 0.16 | 0.032 | 0.81 | 0.032 | 0.81 | 0.336 | 8.53 | IEC |
| **1943/3*** | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.032 | 0.81 | 0.032 | 0.81 | 0.368 | 9.35 | IEC |

*Black jacket only.

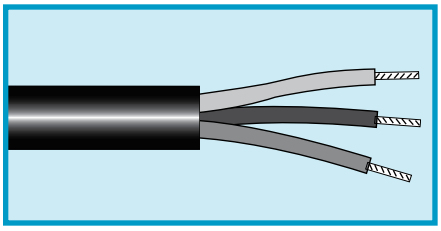
### 3-Conductor Cords (Foil Shield)

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Jacket Thickness | | Cable Dimension | | Color Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG | mm² | AWG | mm | Inch | mm | Inch | mm | Inch | mm | |
| | | | | | Type SJT | | | | | | |
| **1941/3F*** | 18 | 0.82 | 41/34 | 41 x 0.16 | 0.032 | 0.81 | 0.032 | 0.81 | 0.314 | 7.98 | IEC |
| **1942/3F*** | 16 | 1.32 | 65/34 | 65 x 0.16 | 0.032 | 0.81 | 0.032 | 0.81 | 0.340 | 8.64 | IEC |
| **1943/3F*** | 14 | 2.08 | 41/30 | 41 x 0.25 | 0.032 | 0.81 | 0.032 | 0.81 | 0.372 | 9.45 | IEC |

*Black jacket only.

# Manhattan™ Cordsets

## 300 V 3-Conductor Cordage
## Rubber



**SJ, SV**
**UL 62**
**CSA C22.2 No. 49**

### Operating Temperature

- -30°C to +90°C

### Conductor Color Coding

- Black, white, green

### Materials

- Stranded bare copper conductors
- Rubber insulation
- Black chlorinated polyethylene jacket

### Availability

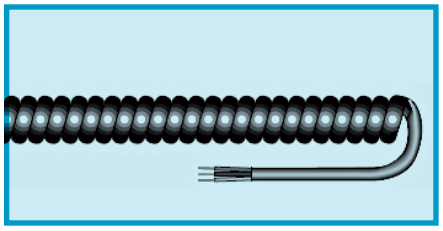
250 ft (76.2 m)
(Minimums may apply)

**3-Conductor Cords (Unshielded)**

| Part No. | Wire Size | | Stranding | | Insulation Thickness | | Jacket Thickness | | Cable Dimension | |
|---|---|---|---|---|---|---|---|---|---|---|
| | AWG | mm² | 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 Retractile 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)**

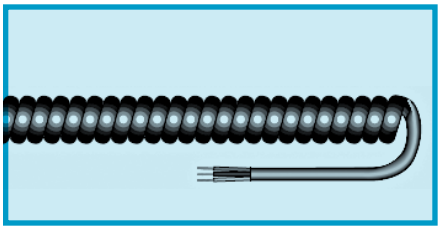
Stranding: 21/36 (21 x 0.13 mm)
Insulation thickness: 0.012 (0.30 mm)
Lead length, each end: 6" (152 mm)

| 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 |

RoHS Compliant

# Manhattan™ Cordsets

## 300 V Retractile 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<br>1 shielded |

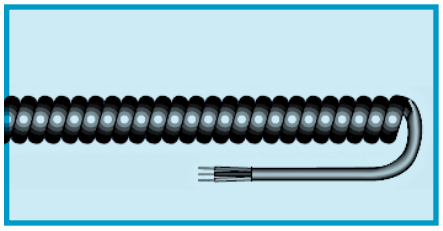
**Conductor Color Coding**

| | | |
|---|---|---|
| 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 |

RoHS Compliant

# Manhattan™ Cordsets

## 300 V Retractile 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 |

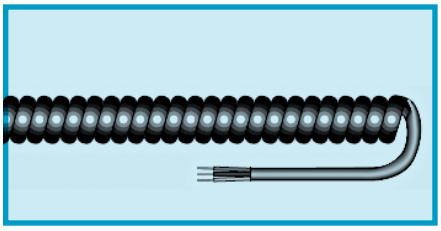
**Conductor Color Coding**

| | |
|---|---|
| 1 Black | 5 Blue |
| 2 White | 6 Yellow |
| 3 Red | 7 Brown |
| 4 Green | |

RoHS Compliant

# Manhattan™ Cordsets

## 300 V Retractile 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)**

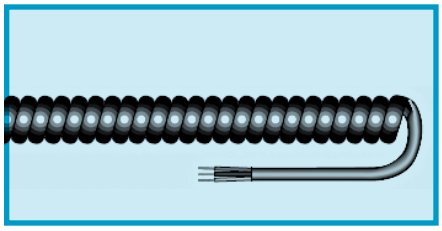
Stranding: 41/34 (41 x 0.16 mm)
Insulation thickness: 0.015 (0.38 mm)
Lead length, each end: 6" (152 mm)

| Part No. | Conductors | Coil Diameter | | Cord Diameter | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **760/4** | 3 | 1.000 | 25.40 | 0.27 | 7.0 |

UL LISTED RoHS Compliant

# Manhattan™ Cordsets

## 300 V/600 V Retractile 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)**

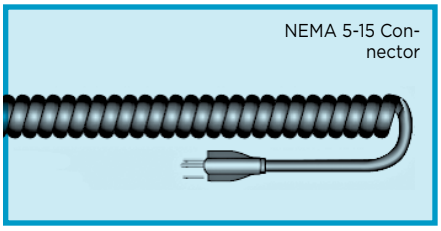
Stranding: 41/30 (41 x 0.25 mm)
Insulation thickness: 0.030 (0.76 mm)
Lead length, each end: 6" (152 mm)

| Part No. | Conductors | Coil Diameter | | Cord Diameter | |
|---|---|---|---|---|---|
| | | Inch | mm | Inch | mm |
| **674/4** | 4 | 2.055 | 52.20 | 0.610 | 15.49 |

UL LISTED RoHS Compliant

# Manhattan™ Cordsets

## 300 V Retractile 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)**

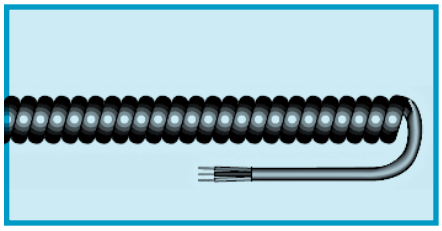
Stranding: 65/34 (65 x 0.16 mm)
Insulation thickness: 0.015 (0.38 mm)
Jacket stripped 1.5" (38.1 mm); insulation stripped 0.5" (12.7 mm)

| 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 |

UL LISTED RoHS Compliant

# Manhattan™ Cordsets

## 30 V Miniature Retractile 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 |

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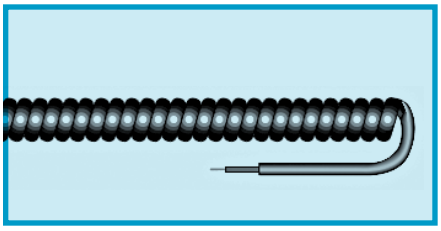
# Manhattan™ Cordsets

## 5000 V Retractile 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

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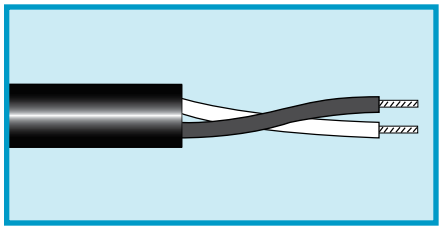
# Manhattan™ Cordsets

## 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 | mm² | 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 | mm² | 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 | mm² | 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.

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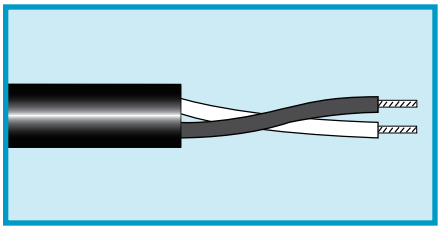
# Manhattan™ Cordsets

## 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 | mm² | 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 | mm² | AWG | mm | Inch | mm | Inch | mm | Amps | AWG | mm² |
| **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.

RoHS Compliant

# 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

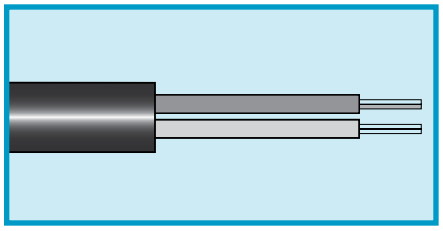
| Material | Temperature (°C) | | Mechanical | | | Chemical Resistance | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Continuous | Intermittent | Flame | Abrasion | Flexibility | Solvents | Acids | Bases | Moisture |
| PVC | 105 | — | G | G | G | F | G | G | G |
| FEP | 200 | — | E | E | G | E | 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 | mm² | 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

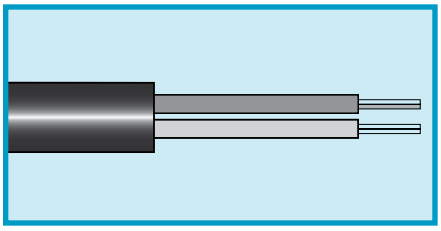
**Duplex Parallel: FEP Insulation, FEP Jacket**

| Part No. | Conductor Size | | Outer Dimension | |
|---|---|---|---|---|
| | AWG | mm² | 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 |

RoHS Compliant

# 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 | mm² | 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 | mm² | 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

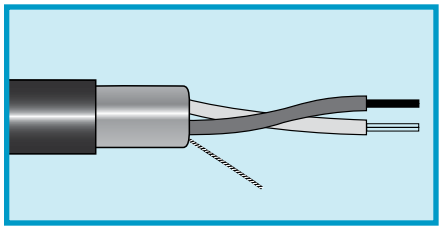
### FEP Insulation, FEP Jacket

| Part No. | Conductor Size | | Outer Dimension | |
|---|---|---|---|---|
| | AWG | mm² | Inch | mm |
| **Type JX: Iron/Constantan** | | | | |
| **5715** | 16 | 1.31 | 0.087 x 0.154 | 2.21 x 3.91 |

RoHS Compliant

# 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 | mm² | 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 |

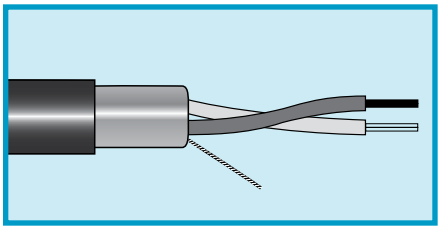
**Foil Shielded Individual and Overall, Twisted Pairs, PVC Insulation, PVC Jacket**
**UL PLTC/ITC, 300 V, 105°C**

| Part No. | Conductor Size | | Pairs | Outer Dimension | |
|---|---|---|---|---|---|
| | AWG | mm² | | 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 |

UL LISTED RoHS Compliant

# 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 | mm² | | 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 | mm² | | 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 |

UL LISTED RoHS Compliant

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