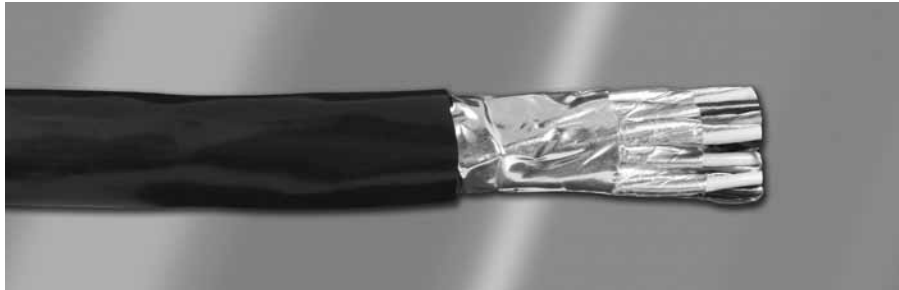


# A Full Range of Communication and Control



**O**ur line-up of standard communication and control cables gives you maximum choice and fewer tradeoffs. By offering you a comprehensive collection of insulation/jacketing materials, shielding options, and conductor counts, you can easily select the cable that meets your most demanding needs. We have cables that go beyond the ordinary to satisfy rigorous requirements of EMI performance, transmission distances, flexibility, and temperature extremes.

## Communication and control typical applications:

- Audio systems: speakers, microphones, intercoms
- Broadcast and studio
- Data transmission: RS-232, 422, 485
- CAD/CAM
- Computer peripherals
- Business machines
- Security systems: alarms, cameras, sensors
- Control systems
- Instrumentation systems
- Point-of-sale systems
- Banking systems

## Communication and control key features:

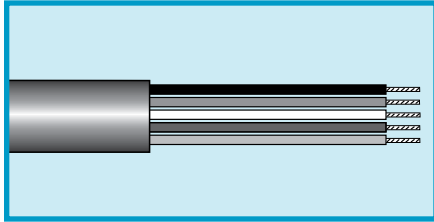
- 1 – 50 conductors, 1 – 50 pairs
- Wide range of insulation/jacket materials:
  - PVC
  - Irradiated PVC
  - Plenum-rated PVC
  - Semirigid PVC
  - Rubber
  - Polyethylene
  - Polypropylene
  - Foam PP and PE
  - PTFE/FEP
  - LSZH
- Low-capacitance cables for improved transmission distances and signal integrity

## Flexible shielding options:

- Unshielded
- Overall foil shield
- Overall foil/braid
- Individual foil-shielded pairs
- Individual foil-shielded pairs with overall foil/braid

# Communication and Control Cable

## 300 V Unshielded, Multiconductor, LSZH



Alpha Wire's LSZH communication and control cable combines LSZH-rated insulation and jackets with the rugged performance you expect from Alpha. The specially formulated LSZH material minimizes the effects from smoke and harmful corrosive gases in the event of combustion. Low smoke means easier visibility in exiting the area and reduced danger of smoke inhalation, while low toxicity means no harm to people from halogenated gases.

### UL CM VW-1 CSA CMG FT4

#### Operating Temperature

- -20°C to +75°C

#### Materials

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

### LSZH Properties

- LSZH Flammability: Passes IEC 60332-1
- LSZH Acid Gas Generation: Passes IEC 60754-1 and 60754-2
- LSZH Smoke Emission: Passes IEC 61034-2

#### LSZH Unshielded Multiconductor Conductor Color Coding: Chart D

##### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| 1172L    | 2          | 0.161            | 4.09 | 0.028            | 0.71 |
| 1173L    | 3          | 0.169            | 4.29 | 0.028            | 0.71 |
| 1174L    | 4          | 0.189            | 4.80 | 0.028            | 0.71 |
| 1175L    | 5          | 0.201            | 5.11 | 0.028            | 0.71 |
| 1176L    | 6          | 0.209            | 5.31 | 0.030            | 0.76 |
| 1177L    | 7          | 0.209            | 5.31 | 0.030            | 0.76 |
| 1178L    | 8          | 0.220            | 5.59 | 0.030            | 0.76 |
| 1179L    | 9          | 0.249            | 6.32 | 0.032            | 0.81 |
| 1180L    | 10         | 0.260            | 6.60 | 0.035            | 0.88 |

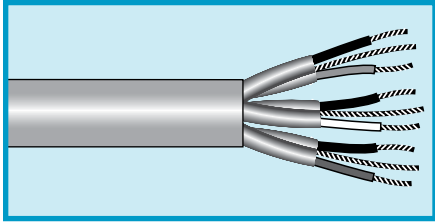
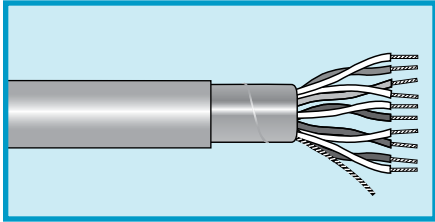
##### 20 AWG (0.56 mm<sup>2</sup>)

Stranding: 7/28 (0.32 mm)  
Insulation thickness: 0.016 (0.40 mm)

| Part No. | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|----------|------------|------------------|------|------------------|------|
|          |            | Inch             | mm   | Inch             | mm   |
| 1895L    | 2          | 0.181            | 4.60 | 0.018            | 0.45 |
| 1896L    | 3          | 0.189            | 4.80 | 0.020            | 0.50 |
| 1896/4L  | 4          | 0.209            | 5.31 | 0.020            | 0.50 |
| 1896/5L  | 5          | 0.232            | 5.89 | 0.020            | 0.50 |
| 1896/6L  | 6          | 0.276            | 7.01 | 0.020            | 0.50 |

# Communication and Control Cable

## 300 V Foil Shielded, Multipair, LSZH



Alpha Wire's LSZH communication and control cable combines LSZH-rated insulation and jackets with the rugged performance you expect from Alpha. The specially formulated LSZH material minimizes the effects from smoke and harmful corrosive gases in the event of combustion. Low smoke means easier visibility in exiting the area and reduced danger of smoke inhalation, while low toxicity means no harm to people from halogenated gases.

### UL CM VW-1 CSA CMG FT4

#### Operating Temperature

- 20°C to +75°C

#### Materials

- Stranded tinned copper conductors
- LSZH insulation (Polypropylene insulation for individually foil shielded pairs)
- Aluminum/polyester shielding, with 25% overlap min. Foil facing inward
- Tinned copper drain wire sized the same as the conductors
- Slate LSZH jacket

### LSZH Properties

- LSZH Flammability: Passes IEC 60332-1
- LSZH Acid Gas Generation: Passes IEC 60754-1 and 60754-2
- LSZH Smoke Emission: Passes IEC 61034-2

#### LSZH Overall Foil Shielded Multipair Conductor Color Coding: Chart A

##### 24 AWG (0.22 mm<sup>2</sup>)

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   |
| 5471L    | 1     | 0.161            | 4.09 | 0.028            | 0.71 |
| 5472L    | 2     | 0.209            | 5.31 | 0.028            | 0.71 |
| 5473L    | 3     | 0.228            | 5.79 | 0.028            | 0.71 |
| 5474L    | 4     | 0.240            | 6.10 | 0.028            | 0.71 |
| 5475L    | 5     | 0.272            | 6.91 | 0.030            | 0.76 |
| 5476L    | 6     | 0.299            | 7.59 | 0.030            | 0.76 |
| 5477L    | 7     | 0.299            | 7.59 | 0.030            | 0.76 |
| 5478L    | 8     | 0.319            | 8.10 | 0.032            | 0.81 |
| 5479L    | 9     | 0.339            | 8.61 | 0.032            | 0.81 |
| 5480L    | 10    | 0.378            | 9.60 | 0.032            | 0.81 |

#### LSZH Individually Foil-Shielded Pair Conductor Color Coding: Chart A

##### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| 2466L**  | 2     | 0.161            | 4.09  | 0.014            | 0.35 |
| 6010L    | 3     | 0.299            | 7.59  | 0.047            | 1.19 |
| 2463L**  | 4     | 0.242            | 6.15  | 0.020            | 0.50 |
| 6012L    | 6     | 0.386            | 9.80  | 0.040            | 1.01 |
| 6014L    | 9     | 0.441            | 11.20 | 0.040            | 1.01 |
| 6017L    | 12    | 0.492            | 12.50 | 0.040            | 1.01 |

\*Conductor color coding: 1 Red-Black, 2 Green-White, White/Red-White/Black, 4 White/Green-White/Yellow.

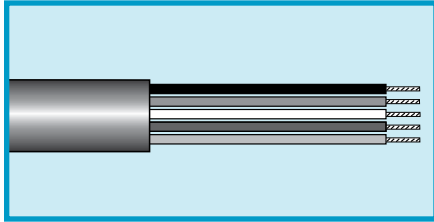
†0.009 (0.23) insulation thickness.

\*\*0.008 (0.20) insulation thickness.



# Communication and Control

## 300 V Unshielded, Multiconductor, PVC, PVC



**UL AWM 2576 (150 V) VW-1**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart D (page 531)

### Materials

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

### Availability

100 ft (30.5 m)  
 500 ft (152 m)  
 1000 ft (305 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   |
| <b>1172C</b>    | 2          | 0.164            | 4.17  | 0.032            | 0.81 |
| <b>1173C</b>    | 3          | 0.172            | 4.37  | 0.032            | 0.81 |
| <b>1174C</b>    | 4          | 0.185            | 4.70  | 0.032            | 0.81 |
| <b>1175C</b>    | 5          | 0.200            | 5.08  | 0.032            | 0.81 |
| <b>1176C</b>    | 6          | 0.215            | 5.46  | 0.032            | 0.81 |
| <b>1177C</b>    | 7          | 0.215            | 5.46  | 0.032            | 0.81 |
| <b>1178C</b>    | 8          | 0.230            | 5.84  | 0.032            | 0.81 |
| <b>1179C</b>    | 9          | 0.246            | 6.25  | 0.032            | 0.81 |
| <b>1180C</b>    | 10         | 0.264            | 6.71  | 0.032            | 0.81 |
| <b>1181C</b>    | 12         | 0.272            | 6.91  | 0.032            | 0.81 |
| <b>1181/15C</b> | 15         | 0.294            | 7.47  | 0.032            | 0.81 |
| <b>1181/20C</b> | 20         | 0.326            | 8.28  | 0.032            | 0.81 |
| <b>1181/25C</b> | 25         | 0.364            | 9.25  | 0.032            | 0.81 |
| <b>1181/30C</b> | 30         | 0.385            | 9.78  | 0.032            | 0.81 |
| <b>1181/40C</b> | 40         | 0.429            | 10.90 | 0.032            | 0.81 |
| <b>1181/50C</b> | 50         | 0.478            | 12.14 | 0.035            | 0.89 |
| <b>1181/60C</b> | 60         | 0.520            | 13.21 | 0.035            | 0.89 |

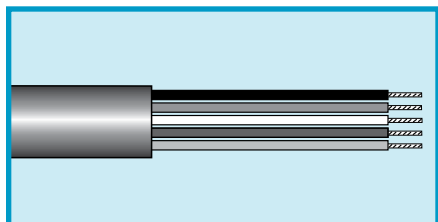
### 22 AWG (0.32 mm²)

Stranding: Solid  
 Insulation thickness: 0.010 (0.25 mm)

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|------------------|------|------------------|------|
|              |            | Inch             | mm   | Inch             | mm   |
| <b>1793C</b> | 2          | 0.157            | 3.99 | 0.032            | 0.81 |

# Communication and Control

## 300 V Unshielded, Multiconductor, PVC, PVC



**UL AWM 2509 VW-1**

**UL CM**

**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### 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)

### 20 AWG (0.56 mm<sup>2</sup>)

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   |
| <b>1895C</b>    | 2          | 0.180            | 4.57 | 0.020            | 0.51 |
| <b>1896C</b>    | 3          | 0.191            | 4.85 | 0.020            | 0.51 |
| <b>1896/4C</b>  | 4          | 0.209            | 5.31 | 0.020            | 0.51 |
| <b>1896/5C</b>  | 5          | 0.230            | 5.84 | 0.020            | 0.51 |
| <b>1896/6C</b>  | 6          | 0.251            | 6.38 | 0.020            | 0.51 |
| <b>1896/7C</b>  | 7          | 0.251            | 6.38 | 0.020            | 0.51 |
| <b>1896/8C</b>  | 8          | 0.273            | 6.93 | 0.020            | 0.51 |
| <b>1896/9C</b>  | 9          | 0.301            | 7.65 | 0.023            | 0.58 |
| <b>1896/10C</b> | 10         | 0.320            | 8.13 | 0.020            | 0.51 |
| <b>1896/12C</b> | 12         | 0.331            | 8.41 | 0.020            | 0.51 |
| <b>1896/15C</b> | 15         | 0.382            | 9.70 | 0.030            | 0.76 |

### 18 AWG (0.81 mm<sup>2</sup>)

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   |
| <b>1897C</b>    | 2          | 0.198            | 5.03  | 0.020            | 0.51 |
| <b>1898C</b>    | 3          | 0.210            | 5.33  | 0.020            | 0.51 |
| <b>1898/4C</b>  | 4          | 0.231            | 5.87  | 0.020            | 0.51 |
| <b>1898/5C</b>  | 5          | 0.254            | 6.45  | 0.020            | 0.51 |
| <b>1898/6C</b>  | 6          | 0.278            | 7.06  | 0.020            | 0.51 |
| <b>1898/7C</b>  | 7          | 0.278            | 7.06  | 0.020            | 0.51 |
| <b>1898/8C</b>  | 8          | 0.313            | 7.95  | 0.025            | 0.64 |
| <b>1898/9C</b>  | 9          | 0.337            | 8.56  | 0.025            | 0.64 |
| <b>1898/10C</b> | 10         | 0.366            | 9.30  | 0.025            | 0.64 |
| <b>1898/12C</b> | 12         | 0.378            | 9.60  | 0.025            | 0.64 |
| <b>1898/15C</b> | 15         | 0.423            | 10.74 | 0.030            | 0.76 |
| <b>1898/19C</b> | 19         | 0.455            | 11.56 | 0.030            | 0.76 |
| <b>1898/25C</b> | 25         | 0.544            | 13.82 | 0.035            | 0.89 |

### 16 AWG (1.32 mm<sup>2</sup>)

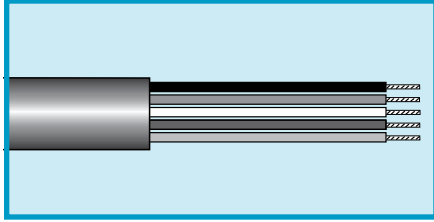
Stranding 19/0.0117 (19 x 0.29 mm)  
Insulation thickness: 0.016 (0.41 mm)

| Part No.       | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|----------------|------------|------------------|------|------------------|------|
|                |            | Inch             | mm   | Inch             | mm   |
| <b>1899C</b>   | 2          | 0.222            | 5.64 | 0.020            | 0.51 |
| <b>1899/3C</b> | 3          | 0.236            | 5.99 | 0.020            | 0.51 |
| <b>1899/4C</b> | 4          | 0.260            | 6.60 | 0.020            | 0.51 |



# Communication and Control

## 300 V Unshielded, Multiconductor, PVC, PVC



**UL CL2 VW-1**  
**CSA AWM I/II A/B FT1**

### Operating Temperature

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

#### 14 AWG (2.09 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   |
| <b>1891C</b>   | 2          | 0.268            | 6.81 | 0.020            | 0.51 |
| <b>1891/3C</b> | 3          | 0.286            | 7.26 | 0.020            | 0.51 |

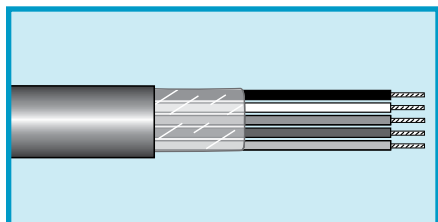
#### 12 AWG (3.31 mm²)

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   |
| <b>1892C</b>   | 2          | 0.312            | 7.92 | 0.023            | 0.58 |
| <b>1892/3C</b> | 3          | 0.333            | 8.46 | 0.023            | 0.58 |

# Communication and Control

600 V Unshielded, Multiconductor, PVC, PVC



## UL AWM 2463 VW-1

### Operating Temperature

- -20°C to +80°C

### Conductor Color Coding

- Chart F (page 532)

### Materials

- Stranded tinned copper conductors
- PVC insulation
- Clear polyester wrap
- Slate PVC jacket

### Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

#### 16 AWG (1.32 mm²)

Stranding 19/0.0117 (19 x 0.29 mm)  
Insulation Thickness 0.032 (0.81 mm)

| Part No.    | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|-------------|------------|------------------|-------|------------------|------|
|             |            | Inch             | mm    | Inch             | mm   |
| <b>1064</b> | 4          | 0.395            | 10.03 | 0.047            | 1.19 |
| <b>1065</b> | 5          | 0.430            | 10.92 | 0.047            | 1.19 |
| <b>1067</b> | 7          | 0.468            | 11.89 | 0.047            | 1.19 |
| <b>1069</b> | 9          | 0.577            | 14.66 | 0.063            | 1.60 |
| <b>1072</b> | 12         | 0.640            | 16.26 | 0.063            | 1.60 |
| <b>1075</b> | 15         | 0.694            | 17.63 | 0.063            | 1.60 |
| <b>1079</b> | 19         | 0.749            | 19.02 | 0.065            | 1.65 |
| <b>1085</b> | 25         | 0.907            | 23.04 | 0.083            | 2.11 |

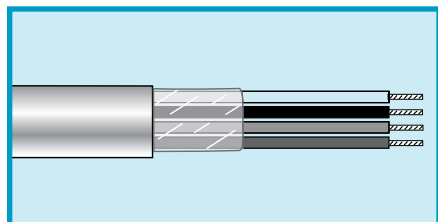
#### 14 AWG (2.08 mm²)

Stranding (19 x 0.0147 (19 x 0.37 mm)  
Insulation thickness: 0.047 (1.19 mm)

| Part No.    | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|-------------|------------|------------------|-------|------------------|------|
|             |            | Inch             | mm    | Inch             | mm   |
| <b>1274</b> | 4          | 0.503            | 12.78 | 0.047            | 1.19 |
| <b>1275</b> | 5          | 0.584            | 14.83 | 0.063            | 1.60 |
| <b>1277</b> | 7          | 0.635            | 16.13 | 0.063            | 1.60 |
| <b>1279</b> | 9          | 0.744            | 18.90 | 0.065            | 1.60 |
| <b>1282</b> | 12         | 0.867            | 22.02 | 0.083            | 2.11 |

# Communication and Control

## 300 V Unshielded, Multiconductor, IRR PVC, PVC



**MIL-DTL-16878/1 (Type B)**  
**UL AWM 2576 (150 V) VW-1**

### Operating Temperature

- -55°C to +105°C (MIL)
- -55°C to +80°C (AWM)

### Conductor Color Coding

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

### Materials

- Stranded tinned copper conductors
- Irradiated PVC insulation
- Clear polyester wrap
- White PVC jacket

### Availability

100 ft (30.5 m)  
 500 ft (152 m)  
 1000 ft (305 m)

### 24 AWG (0.22 mm<sup>2</sup>)

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   |
| <b>6622</b> | 2          | 0.155            | 3.94 | 0.032            | 0.81 |
| <b>6623</b> | 3          | 0.162            | 4.11 | 0.032            | 0.81 |
| <b>6624</b> | 4          | 0.173            | 4.39 | 0.032            | 0.81 |

### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| <b>6632</b> | 2          | 0.167            | 4.24 | 0.032            | 0.81 |
| <b>6633</b> | 3          | 0.175            | 4.44 | 0.032            | 0.81 |
| <b>6634</b> | 4          | 0.188            | 4.78 | 0.032            | 0.81 |

### 20 AWG (0.56 mm<sup>2</sup>)

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   |
| <b>6642</b> | 2          | 0.183            | 4.65 | 0.032            | 0.81 |
| <b>6643</b> | 3          | 0.192            | 4.88 | 0.032            | 0.81 |
| <b>6644</b> | 4          | 0.207            | 5.26 | 0.032            | 0.81 |

### 18 AWG (0.89 mm<sup>2</sup>)

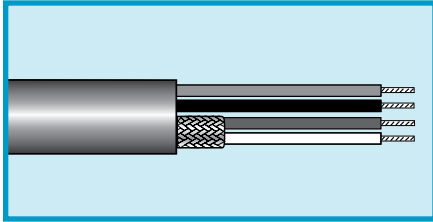
Stranding: 7/26 (7 x 0.40 mm)  
 Insulation thickness: 0.010 (0.25 mm)

| Part No.    | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|-------------|------------|------------------|------|------------------|------|
|             |            | Inch             | mm   | Inch             | mm   |
| <b>6652</b> | 2          | 0.203            | 5.16 | 0.032            | 0.81 |
| <b>6653</b> | 3          | 0.214            | 5.44 | 0.032            | 0.81 |
| <b>6654</b> | 4          | 0.232            | 5.89 | 0.032            | 0.81 |



# Communication and Control

## 300 V Unshielded and Braid Shield, Multiconductor, PVC, PVC



**UL AWM 2785 VW-1**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

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

### Conductor Color Coding

See tables

### Materials

- Stranded tinned copper conductors
- PVC insulation
- Tinned copper braid shield, 80% coverage
- Slate PVC jacket

### Availability

100 ft (30.5 m)\*

500 ft (152 m)\*

1000 ft (305 m)

\*Parts 1243, 1243/4, and 1243/5 only

### 22 AWG Composite Shielded and Unshielded, UL AWM 2785, UL CM, and CSA CMG

#### 22 AWG (0.35 mm<sup>2</sup>)

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

| Part No.      | Conductors | Nominal Diameter |             | Jacket Thickness |      | Configuration |            |
|---------------|------------|------------------|-------------|------------------|------|---------------|------------|
|               |            | Inch             | mm          | Inch             | mm   | Shielded      | Unshielded |
| <b>1243</b>   | 3          | 0.190            | 4.83        | 0.020            | 0.51 | 1             | 2          |
| <b>1243/4</b> | 4          | 0.185 x 0.285    | 4.70 x 7.24 | 0.020            | 0.51 | 2             | 2          |
| <b>1243/5</b> | 5          | 0.195 x 0.300    | 4.95 x 7.62 | 0.020            | 0.51 | 3             | 2          |

Conductor Color Coding

Shielded: 1 White, 2 Black, 3 Red

Unshielded: 1 Black, 2 Red

### 22 and 18 AWG Unshielded, UL CM and CSA CMG Only

#### 22 AWG (0.35 mm<sup>2</sup>)

#### 18 AWG (0.81 mm<sup>2</sup>)

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

16/30 (16 x 0.25 mm)  
 0.018 (0.45 mm)

| Part No.     | Conductors |        | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|--------|------------------|------|------------------|------|
|              | 22 AWG     | 18 AWG | Inch             | mm   | Inch             | mm   |
| <b>1826C</b> | 4          | 2      | 0.241            | 6.12 | 0.025            | 0.63 |
| <b>1827C</b> | 5          | 2      | 0.247            | 6.27 | 0.028            | 0.71 |
| <b>1828C</b> | 6          | 2      | 0.261            | 6.63 | 0.028            | 0.71 |

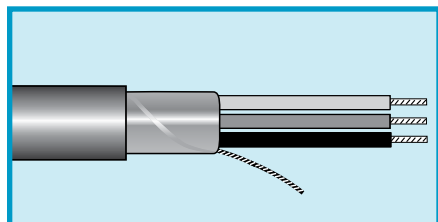
Conductor Color Coding

22 AWG: Chart I (page 533)

18 AWG: Chart D (page 531)

# Communication and Control

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



**UL AWM 2092, 2093,  
2094 VW-1**  
**UL CMG**  
**CSA CMG FT4**

### Operating Temperature

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

### Conductor Color Coding

- 1 Black, 2 Red, 3 Natural, 4 Green

### Materials

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

### Availability

100 ft (30.5 m)  
500 ft (152 m), spool or box  
1000 ft (305 m), spool or box

#### 24 AWG (0.23 mm<sup>2</sup>)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)  
24 AWG (0.22 mm<sup>2</sup>) drain wire

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      | AWM  |
|--------------|------------|------------------|------|------------------|------|------|
|              |            | Inch             | mm   | Inch             | mm   |      |
| <b>2400C</b> | 2          | 0.156            | 3.96 | 0.020            | 0.51 | 2092 |

#### 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)  
22 AWG (0.35 mm<sup>2</sup>) drain wire

| Part No.      | Conductors | Nominal Diameter |      | Jacket Thickness |      | AWM  |
|---------------|------------|------------------|------|------------------|------|------|
|               |            | Inch             | mm   | Inch             | mm   |      |
| <b>2401C*</b> | 2          | 0.168            | 4.27 | 0.020            | 0.51 | 2092 |
| <b>2402C</b>  | 2          | 0.168            | 4.27 | 0.020            | 0.51 | 2092 |
| <b>2403C</b>  | 3          | 0.178            | 4.52 | 0.020            | 0.51 | 2093 |
| <b>2404C</b>  | 4          | 0.194            | 4.93 | 0.020            | 0.51 | 2094 |

#### 20 AWG (0.56 mm<sup>2</sup>)

Stranding: 7/28 (7 x 0.32 mm)  
Insulation thickness: 0.016 (0.41 mm)  
20 AWG (0.50 mm<sup>2</sup>) drain wire

| Part No.      | Conductors | Nominal Diameter |      | Jacket Thickness |      | AWM  |
|---------------|------------|------------------|------|------------------|------|------|
|               |            | Inch             | mm   | Inch             | mm   |      |
| <b>2411C*</b> | 2          | 0.184            | 4.67 | 0.020            | 0.51 | 2092 |
| <b>2412C</b>  | 2          | 0.184            | 4.67 | 0.020            | 0.51 | 2092 |
| <b>2413C</b>  | 3          | 0.195            | 4.95 | 0.020            | 0.51 | 2093 |
| <b>2414C</b>  | 4          | 0.213            | 5.41 | 0.020            | 0.51 | 2094 |

#### 18 AWG (0.81 mm<sup>2</sup>)

Stranding: 16/30 (16 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)  
20 AWG (0.50 mm<sup>2</sup>) drain wire

| Part No.      | Conductors | Nominal Diameter |      | Jacket Thickness |      | AWM  |
|---------------|------------|------------------|------|------------------|------|------|
|               |            | Inch             | mm   | Inch             | mm   |      |
| <b>2421C*</b> | 2          | 0.202            | 5.13 | 0.020            | 0.51 | 2092 |
| <b>2422C</b>  | 2          | 0.202            | 5.13 | 0.020            | 0.51 | 2092 |
| <b>2423C</b>  | 3          | 0.214            | 5.44 | 0.020            | 0.51 | 2093 |
| <b>2424C</b>  | 4          | 0.235            | 5.97 | 0.020            | 0.51 | 2094 |

#### 16 AWG (1.32 mm<sup>2</sup>)

Stranding: 19/0.117 (19 x 0.30 mm)  
Insulation thickness: 0.016 (0.41 mm)  
18 AWG (0.81 mm<sup>2</sup>) drain wire

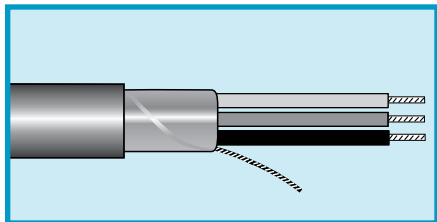
| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      | AWM  |
|--------------|------------|------------------|------|------------------|------|------|
|              |            | Inch             | mm   | Inch             | mm   |      |
| <b>2432C</b> | 2          | 0.226            | 5.74 | 0.020            | 0.51 | 2092 |
| <b>2433C</b> | 3          | 0.240            | 6.10 | 0.020            | 0.51 | 2093 |

\*Color code: 1 black, 2 natural.



# Communication and Control

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



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

### Operating Temperature

- -20°C to +75°C (CL2)
- -20°C to +60°C (AWM)

### Conductor Color Coding

- 1 Black, 2 Red, 3 Natural, 4 Green

### Materials

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

### Availability

100 ft (30.5 m)  
500 ft (152 m), spool or box  
1000 ft (305 m), spool or box

#### 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  |
|--------------|------------|------------------|------|------------------|------|-----|
|              |            | Inch             | mm   | Inch             | mm   |     |
| <b>2442C</b> | 2          | 0.292            | 7.42 | 0.030            | 0.76 | CL2 |

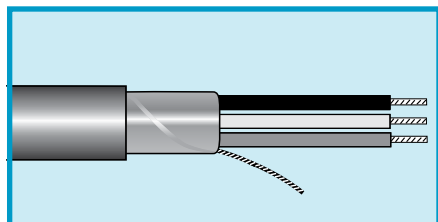
#### 12 AWG (3.29 mm²)

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  |
|--------------|------------|------------------|------|------------------|------|-----|
|              |            | Inch             | mm   | Inch             | mm   |     |
| <b>2444C</b> | 2          | 0.330            | 8.38 | 0.030            | 0.76 | CL2 |

# Communication and Control

## 300 V Foil Shield, Multiconductor, PP, PE, PVC/PVC



**UL CM**  
**VW-1**  
**CSA CMG FT4**

### Operating Temperature

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

### Conductor Color Coding

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

### Materials

- Stranded tinned copper conductors (except 2460C)
- PP, PE, or PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.  
Foil facing outward  
1243/3C: foil facing inward  
Stranded tinned copper drain wire (except 2460C)
- Slate PVC jacket  
2461C: slate or black

### Availability

100 ft (30.5 m)  
 500 ft (152 m)  
 1000 ft (305 m)

### Polypropylene Insulation

#### 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm) or solid  
 Insulation Thickness: 0.008 (0.20 mm)

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      | Configuration |            |
|--------------|------------|------------------|------|------------------|------|---------------|------------|
|              |            | Inch             | mm   | Inch             | mm   | Shielded      | Unshielded |
| <b>2460C</b> | 2 (solid)  | 0.126            | 3.20 | 0.020            | 0.51 | 2             | 0          |
| <b>2461C</b> | 2          | 0.136            | 3.45 | 0.020            | 0.51 | 2             | 0          |

### Polyethylene Insulation

#### 20 AWG (0.56 mm<sup>2</sup>)

Stranding: 7/28 (7 x 0.32 mm)  
 Insulation Thickness: 0.014 (0.36 mm)

| Part No.       | Conductors | Nominal Diameter |      | Jacket Thickness |      | Configuration |            |
|----------------|------------|------------------|------|------------------|------|---------------|------------|
|                |            | Inch             | mm   | Inch             | mm   | Shielded      | Unshielded |
| <b>1243/3C</b> | 3          | 0.210            | 5.33 | 0.030            | 0.76 | 2             | 1          |
| <b>2464C</b>   | 4          | 0.165            | 4.19 | 0.020            | 0.51 | 2             | 2          |

### PVC Insulation

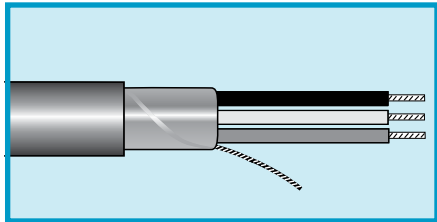
#### 20 AWG (0.56 mm<sup>2</sup>)

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

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      | Configuration |            |
|--------------|------------|------------------|------|------------------|------|---------------|------------|
|              |            | Inch             | mm   | Inch             | mm   | Shielded      | Unshielded |
| <b>2465C</b> | 4          | 0.240            | 6.10 | 0.030            | 0.76 | 2             | 2          |

# Communication and Control

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



**UL AWM 2576 (150 V) VW-1**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart D (page 531)

### 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)

### 24 AWG (0.23 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   |
| 1212C    | 2          | 0.156            | 3.96  | 0.032            | 0.81 |
| 1213C    | 3          | 0.163            | 4.14  | 0.032            | 0.81 |
| 1214C    | 4          | 0.174            | 4.42  | 0.032            | 0.81 |
| 1215C    | 5          | 0.187            | 4.75  | 0.032            | 0.81 |
| 1216C    | 6          | 0.201            | 5.11  | 0.032            | 0.81 |
| 1217C    | 7          | 0.201            | 5.11  | 0.032            | 0.81 |
| 1218C    | 8          | 0.214            | 5.44  | 0.032            | 0.81 |
| 1219C    | 9          | 0.228            | 5.79  | 0.032            | 0.81 |
| 1219/10C | 10         | 0.244            | 6.20  | 0.032            | 0.81 |
| 1219/12C | 12         | 0.251            | 6.38  | 0.032            | 0.81 |
| 1219/15C | 15         | 0.270            | 6.86  | 0.032            | 0.81 |
| 1219/20C | 20         | 0.298            | 7.57  | 0.032            | 0.81 |
| 1219/25C | 25         | 0.332            | 8.43  | 0.032            | 0.81 |
| 1219/37C | 37         | 0.376            | 9.55  | 0.032            | 0.81 |
| 1219/40C | 40         | 0.390            | 9.91  | 0.032            | 0.81 |
| 1219/50C | 50         | 0.427            | 10.85 | 0.032            | 0.81 |

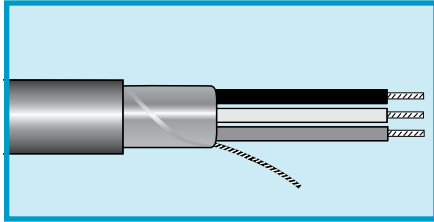
### 22 AWG (0.35 mm²)

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   |
| 1292C    | 2          | 0.168            | 4.27  | 0.032            | 0.81 |
| 1293C    | 3          | 0.176            | 4.47  | 0.032            | 0.81 |
| 1294C    | 4          | 0.189            | 4.80  | 0.032            | 0.81 |
| 1295C    | 5          | 0.204            | 5.18  | 0.032            | 0.81 |
| 1296C    | 6          | 0.219            | 5.56  | 0.032            | 0.81 |
| 1297C    | 7          | 0.219            | 5.56  | 0.032            | 0.81 |
| 1298C    | 8          | 0.234            | 5.94  | 0.032            | 0.81 |
| 1299C    | 9          | 0.250            | 6.35  | 0.032            | 0.81 |
| 1299/10C | 10         | 0.268            | 6.81  | 0.032            | 0.81 |
| 1299/12C | 12         | 0.276            | 7.01  | 0.032            | 0.81 |
| 1299/15C | 15         | 0.298            | 7.57  | 0.032            | 0.81 |
| 1299/20C | 20         | 0.330            | 8.38  | 0.032            | 0.81 |
| 1299/25C | 25         | 0.368            | 9.35  | 0.032            | 0.81 |
| 1299/30C | 30         | 0.389            | 9.88  | 0.032            | 0.81 |
| 1299/37C | 37         | 0.418            | 10.62 | 0.032            | 0.81 |
| 1299/40C | 40         | 0.433            | 11.00 | 0.032            | 0.81 |
| 1299/50C | 50         | 0.482            | 12.24 | 0.035            | 0.89 |

# Communication and Control

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



**UL AWM 2464 VW-1**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart F (page 532)

### 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
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
 500 ft (152 m)  
 1000 ft (305 m)

### 24 AWG (0.22 mm²)

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

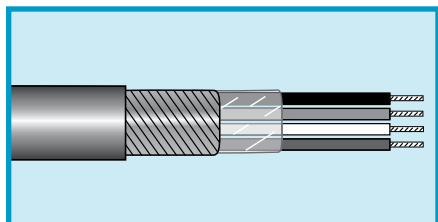
| Part No.        | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|------------|------------------|-------|------------------|------|
|                 |            | Inch             | mm    | Inch             | mm   |
| <b>6300/3*</b>  | 3          | 0.163            | 4.14  | 0.032            | 0.81 |
| <b>6300/4*</b>  | 4          | 0.174            | 5.44  | 0.032            | 0.81 |
| <b>6305</b>     | 5          | 0.187            | 4.75  | 0.032            | 0.81 |
| <b>6306*</b>    | 6          | 0.201            | 5.11  | 0.032            | 0.81 |
| <b>6300/8*</b>  | 8          | 0.214            | 5.44  | 0.032            | 0.81 |
| <b>6300/10*</b> | 10         | 0.244            | 6.20  | 0.032            | 0.81 |
| <b>6307</b>     | 15         | 0.270            | 6.86  | 0.032            | 0.81 |
| <b>6308</b>     | 20         | 0.298            | 7.57  | 0.032            | 0.81 |
| <b>6309</b>     | 25         | 0.332            | 8.43  | 0.032            | 0.81 |
| <b>6310</b>     | 30         | 0.366            | 9.30  | 0.040            | 1.02 |
| <b>6311</b>     | 40         | 0.406            | 10.31 | 0.040            | 1.02 |
| <b>6312</b>     | 50         | 0.453            | 11.51 | 0.045            | 1.14 |

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

\*Color coding: 1 Black, 2 White, 3 Red, 4 Green, 5 Brown, 6 Blue, 7 Orange, 8 Yellow, 9 Violet, 10 Slate.

# Communication and Control

## 300 V Spiral Shield, Multiconductor, PVC, PVC



### AWM 2095

### AWM 1108 (Single-conductor cables)

#### Operating Temperature

- -20°C to +80°C

#### Conductor Color Coding

- 1 Black, 2 Red, 3 White, 4 Green, 5 Yellow, 6 Blue

#### Materials

- Stranded tinned copper conductors
- PVC insulation
- Clear polyester wrap (multiconductor only)
- Bare copper spiral shield, 95% coverage
- Slate PVC jacket

#### Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

#### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| 2254/1   | 1          | 0.112            | 2.84 | 0.020            | 0.51 |
| 2254     | 2          | 0.177            | 4.50 | 0.020            | 0.51 |
| 2254/3   | 3          | 0.187            | 4.75 | 0.020            | 0.51 |
| 2254/4   | 4          | 0.206            | 5.23 | 0.020            | 0.51 |
| 2254/6   | 6          | 0.243            | 6.17 | 0.020            | 0.51 |

#### 20 AWG (0.56 mm<sup>2</sup>)

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   |
| 2256/1   | 1          | 0.119            | 3.02 | 0.020            | 0.51 |
| 2256     | 2          | 0.191            | 4.85 | 0.020            | 0.51 |
| 2256/3   | 3          | 0.202            | 5.13 | 0.020            | 0.51 |
| 2256/4   | 4          | 0.223            | 5.66 | 0.020            | 0.51 |
| 2256/6   | 6          | 0.264            | 6.71 | 0.020            | 0.51 |

#### 18 AWG (0.81 mm<sup>2</sup>)

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   |
| 2258/1   | 1          | 0.129            | 3.28 | 0.020            | 0.51 |
| 2258     | 2          | 0.214            | 5.44 | 0.020            | 0.51 |
| 2258/3   | 3          | 0.226            | 5.74 | 0.020            | 0.51 |
| 2258/4   | 4          | 0.247            | 6.27 | 0.020            | 0.51 |

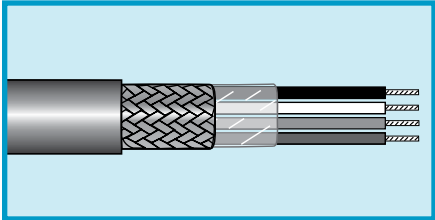
#### 16 AWG (1.32 mm<sup>2</sup>)

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   |
| 2260     | 2          | 0.240            | 6.10 | 0.020            | 0.51 |
| 2260/3   | 3          | 0.254            | 6.45 | 0.020            | 0.51 |

# Communication and Control

600 V Braid Shield, Multiconductor, PVC, PVC



## MIL-DTL-16878/1 (Type B)

### Operating Temperature

- 55°C to +105°C

### Conductor Color Coding

- Chart F (page 532)

### Materials

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

### Availability

100 ft (30.5 m)  
1000 ft (305 m)

### 28 AWG (0.09 mm²)

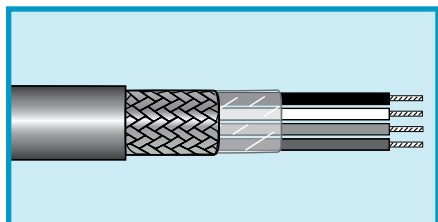
Stranding: 7/36 (7 x 0.13 mm)  
Insulation thickness: 0.010 (0.25 mm)

| Part No. | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|----------|------------|------------------|------|------------------|------|
|          |            | Inch             | mm   | Inch             | mm   |
| 3302     | 2          | 0.119            | 3.02 | 0.012            | 0.30 |
| 3303     | 3          | 0.124            | 3.15 | 0.012            | 0.30 |
| 3304     | 4          | 0.134            | 3.40 | 0.012            | 0.30 |
| 3306     | 6          | 0.161            | 4.09 | 0.015            | 0.38 |
| 3308     | 8          | 0.171            | 4.34 | 0.015            | 0.38 |
| 3310     | 10         | 0.201            | 5.11 | 0.018            | 0.46 |
| 3312     | 12         | 0.206            | 5.23 | 0.018            | 0.46 |
| 3315     | 15         | 0.236            | 5.99 | 0.020            | 0.51 |
| 3320     | 20         | 0.261            | 6.63 | 0.022            | 0.56 |



# Communication and Control

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



### MIL-DTL-16878/17 (Type B/N)

#### Operating Temperature

- -55°C to +105°C

#### Conductor Color Coding

- 1 White, 2 Black, 3 Red, 4 Green (unless otherwise noted)

#### Materials

- Stranded tinned copper conductors
- PVC/nylon insulation
- Clear polyester wrap (multiconductor only)
- Tinned copper braid shield, 90% coverage
- Slate PVC jacket

#### Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

#### 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   |
| <b>3200</b> | 1          | 0.087            | 2.21 | 0.010            | 0.25 |
| <b>3201</b> | 2          | 0.143            | 3.63 | 0.014            | 0.36 |
| <b>3202</b> | 3          | 0.150            | 3.81 | 0.014            | 0.36 |
| <b>3203</b> | 4          | 0.166            | 4.22 | 0.016            | 0.41 |

#### 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   |
| <b>3210</b> | 1          | 0.093            | 2.36 | 0.010            | 0.25 |
| <b>3211</b> | 2          | 0.159            | 4.04 | 0.016            | 0.41 |
| <b>3212</b> | 3          | 0.167            | 4.24 | 0.016            | 0.41 |
| <b>3213</b> | 4          | 0.182            | 4.62 | 0.017            | 0.43 |

#### 22 AWG (0.38 mm²)

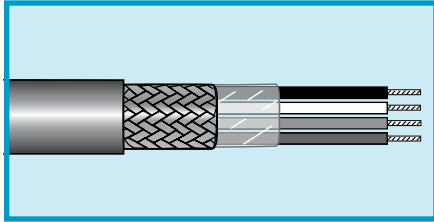
Stranding: 19/34 (19 x 0.16 mm)  
Insulation thickness: 0.010 (0.25 mm) PVC/0.003 (0.08 mm) nylon

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|------------------|------|------------------|------|
|              |            | Inch             | mm   | Inch             | mm   |
| <b>3220</b>  | 1          | 0.100            | 2.54 | 0.010            | 0.25 |
| <b>3221</b>  | 2          | 0.173            | 4.39 | 0.016            | 0.41 |
| <b>3222</b>  | 3          | 0.184            | 4.67 | 0.017            | 0.43 |
| <b>3223</b>  | 4          | 0.203            | 5.16 | 0.019            | 0.49 |
| <b>3335*</b> | 5          | 0.228            | 5.79 | 0.020            | 0.51 |
| <b>3336*</b> | 6          | 0.246            | 6.25 | 0.020            | 0.64 |
| <b>3337*</b> | 8          | 0.274            | 6.96 | 0.025            | 0.64 |

\*Color code chart F.

# Communication and Control

600 V Braid Shield, Multipair, PVC/Nylon, PVC



## MIL-DTL-16878/17 (Type B/N)

### Operating Temperature

- 55°C to +105°C

### Conductor Color Coding

- 1 White, 2 Black, 3 Red, 4 Green (unless otherwise noted)

### Materials

- Stranded tinned copper conductors
- PVC/nylon insulation
- Clear polyester wrap (multiconductor only)
- Tinned copper braid shield, 90% coverage
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

#### 20 AWG (0.61 mm<sup>2</sup>)

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   |
| <b>3230</b> | 1          | 0.108            | 2.74 | 0.010            | 0.25 |
| <b>3231</b> | 2          | 0.195            | 4.95 | 0.019            | 0.49 |
| <b>3232</b> | 3          | 0.205            | 5.21 | 0.019            | 0.49 |
| <b>3233</b> | 4          | 0.227            | 5.77 | 0.021            | 0.53 |

#### 18 AWG (0.96 mm<sup>2</sup>)

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   |
| <b>3240</b> | 1          | 0.122            | 3.10 | 0.012            | 0.30 |
| <b>3241</b> | 2          | 0.219            | 5.56 | 0.021            | 0.53 |
| <b>3242</b> | 3          | 0.233            | 5.92 | 0.022            | 0.56 |
| <b>3243</b> | 4          | 0.261            | 6.63 | 0.023            | 0.58 |

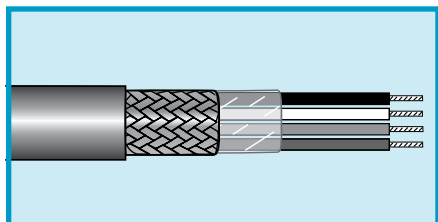
#### 16 AWG (1.23 mm<sup>2</sup>)

Stranding: 19/29 (19 x 0.29 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   |
| <b>3245</b> | 1          | 0.136            | 0.136 | 0.016            | 0.41 |
| <b>3246</b> | 2          | 0.241            | 0.241 | 0.023            | 0.58 |
| <b>3247</b> | 3          | 0.254            | 0.254 | 0.023            | 0.58 |
| <b>3248</b> | 4          | 0.279            | 0.279 | 0.025            | 0.64 |

# Communication and Control

## 300 V Braid Shield, Multiconductor, PVC, PVC



**UL AWM 2095 VW-1**  
**UL AWM 1108**  
**(Single-Conductor Cables)**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart D (page 531)

### Materials

- Stranded or solid tinned copper conductors
- PVC insulation
- Clear polyester wrap (multiconductor only)
- Bare copper braid shield, 75% coverage
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
 500 ft (152 m)  
 1000 ft (305 m)

#### 22 AWG (0.32 mm<sup>2</sup>)

Stranding: Solid  
 Insulation thickness: 0.020 (0.51 mm)

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|------------------|------|------------------|------|
|              |            | Inch             | mm   | Inch             | mm   |
| <b>1775C</b> | 2          | 0.195            | 4.95 | 0.020            | 0.51 |

#### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| <b>1735</b>  | 1          | 0.124            | 3.15 | 0.020            | 0.51 |
| <b>1736C</b> | 2          | 0.189            | 4.80 | 0.020            | 0.51 |
| <b>1737C</b> | 3          | 0.199            | 5.05 | 0.020            | 0.51 |
| <b>1738C</b> | 4          | 0.215            | 5.46 | 0.020            | 0.51 |

#### 20 AWG (0.56 mm<sup>2</sup>)

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   |
| <b>1741C</b> | 2          | 0.205            | 5.21 | 0.020            | 0.51 |
| <b>1742C</b> | 3          | 0.216            | 5.49 | 0.020            | 0.51 |
| <b>1743C</b> | 4          | 0.234            | 5.94 | 0.020            | 0.51 |

#### 18 AWG (0.81 mm<sup>2</sup>)

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   |
| <b>1745</b>    | 1          | 0.141            | 3.58 | 0.020            | 0.51 |
| <b>1746C</b>   | 2          | 0.223            | 5.66 | 0.020            | 0.51 |
| <b>1747C</b>   | 3          | 0.235            | 5.97 | 0.020            | 0.51 |
| <b>1747/4C</b> | 4          | 0.256            | 6.50 | 0.020            | 0.51 |

#### 16 AWG (1.32 mm<sup>2</sup>)

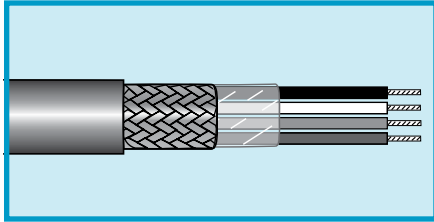
Stranding: 19/0.0117 (19 x 0.30 mm)  
 Insulation thickness: 0.016 (0.41 mm)

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|------------------|------|------------------|------|
|              |            | Inch             | mm   | Inch             | mm   |
| <b>1748C</b> | 2          | 0.247            | 6.27 | 0.020            | 0.51 |
| <b>1749C</b> | 3          | 0.261            | 6.63 | 0.020            | 0.51 |



# Communication and Control

## 450 V Braid Shield, Multiconductor, PVC, PVC



### Operating Temperature

- -20°C to +80°C

### Conductor Color Coding

- Chart D (page 531)

### Materials

- Stranded tinned copper conductors
- PVC insulation
- Clear polyester wrap
- Bare copper braid shield, 75% coverage
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

#### 14 AWG (2.08 mm<sup>2</sup>)

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   |
| 1750     | 2          | 0.299            | 7.59 | 0.020            | 0.51 |
| 1751     | 3          | 0.317            | 8.05 | 0.020            | 0.51 |

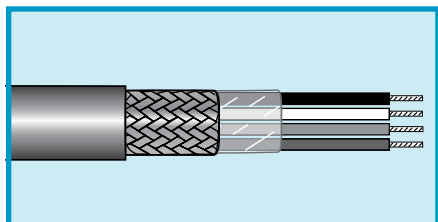
#### 12 AWG (3.29 mm<sup>2</sup>)

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   |
| 1760     | 2          | 0.337            | 8.56 | 0.020            | 0.51 |
| 1761     | 3          | 0.358            | 9.09 | 0.020            | 0.51 |

# Communication and Control

## 600 V Braid Shield, Multiconductor, IRR PVC, PVC



### MIL-DTL-16878/1 (Type B)

#### Operating Temperature

- -55°C to +105°C

#### Conductor Color Coding

- Chart G (page 532)

#### Materials

- Stranded tinned copper conductors
- Irradiated PVC insulation
- Clear polyester wrap
- Tinned copper braid shield, 90% coverage
- White PVC jacket

#### Availability

1000 ft (305 m)

#### 24 AWG (0.22 mm<sup>2</sup>)

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   |
| <b>7622</b> | 2          | 0.163            | 4.14 | 0.025            | 0.64 |
| <b>7623</b> | 3          | 0.170            | 4.32 | 0.025            | 0.64 |
| <b>7624</b> | 4          | 0.181            | 4.60 | 0.025            | 0.64 |

#### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| <b>7631</b> | 1          | 0.122            | 3.10 | 0.025            | 0.64 |
| <b>7632</b> | 2          | 0.175            | 4.45 | 0.025            | 0.64 |
| <b>7633</b> | 3          | 0.183            | 4.65 | 0.025            | 0.64 |
| <b>7634</b> | 4          | 0.196            | 4.98 | 0.025            | 0.64 |

#### 20 AWG (0.56 mm<sup>2</sup>)

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   |
| <b>7661</b> | 1          | 0.130            | 3.30 | 0.025            | 0.64 |
| <b>7662</b> | 2          | 0.191            | 4.85 | 0.025            | 0.64 |
| <b>7663</b> | 3          | 0.200            | 5.08 | 0.025            | 0.64 |
| <b>7664</b> | 4          | 0.215            | 5.46 | 0.025            | 0.64 |

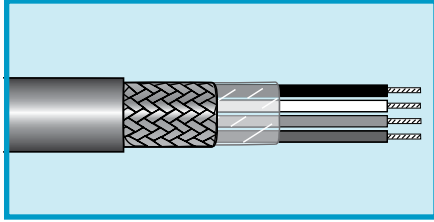
#### 18 AWG (0.89 mm<sup>2</sup>)

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   |
| <b>7671</b> | 1          | 0.140            | 3.56 | 0.025            | 0.64 |
| <b>7672</b> | 2          | 0.211            | 5.35 | 0.025            | 0.64 |
| <b>7673</b> | 3          | 0.222            | 5.64 | 0.025            | 0.64 |
| <b>7674</b> | 4          | 0.240            | 6.09 | 0.025            | 0.64 |

# Communication and Control

1000 V Braid Shield, Multiconductor, PVC, PVC



## MIL-DTL-16878/2 (Type C)

### Operating Temperature

- 55°C to +105°C

### Conductor Color Coding

- Chart F (page 532)

### Materials

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

### Availability

100 ft (30.5 m)  
1000 ft (305 m)

#### 18 AWG (0.96 mm<sup>2</sup>)

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   |
| <b>3405</b> | 5          | 0.303            | 7.70  | 0.025            | 0.64 |
| <b>3408</b> | 8          | 0.364            | 9.25  | 0.030            | 0.76 |
| <b>3410</b> | 10         | 0.429            | 10.90 | 0.035            | 0.89 |
| <b>3412</b> | 12         | 0.442            | 11.23 | 0.035            | 0.89 |
| <b>3415</b> | 15         | 0.488            | 12.40 | 0.040            | 1.02 |
| <b>3420</b> | 20         | 0.550            | 13.97 | 0.045            | 1.14 |
| <b>3430</b> | 30         | 0.667            | 16.94 | 0.055            | 1.40 |

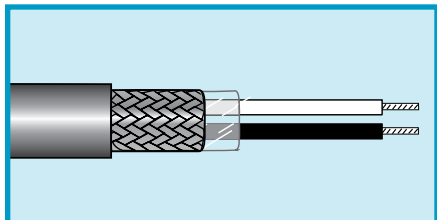
#### 16 AWG (1.23 mm<sup>2</sup>)

Stranding: 19/29 (19 x 0.29 mm)  
Insulation thickness: 0.018 (0.45 mm)

| Part No.    | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|-------------|------------|------------------|-------|------------------|------|
|             |            | Inch             | mm    | Inch             | mm   |
| <b>3444</b> | 4          | 0.316            | 8.03  | 0.031            | 0.79 |
| <b>3446</b> | 6          | 0.376            | 9.55  | 0.034            | 0.86 |
| <b>3450</b> | 10         | 0.487            | 12.37 | 0.044            | 1.12 |
| <b>3452</b> | 12         | 0.509            | 12.93 | 0.048            | 1.22 |

# Communication and Control

## Braid or Spiral Shield, Multiconductor, PE, PVC Microphone Cable



### Operating Temperature

- -20°C to +60°C

### Conductor Color Coding

- 1-White, 2-Black

### Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Clear polyester wrap (multiconductor only)

- Braided tinned copper or spiral wrapped tinned copper shield, 90% coverage (85% for part no. 1712)
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

1-Conductor Cable for High-Impedance Microphones

| Part No. | Voltage Rating | Wire Size |                 | Stranding |           | Nominal Diameter |      | Shield | Jacket Thickness |      | Insulation Thickness |      | Capacitance |      |
|----------|----------------|-----------|-----------------|-----------|-----------|------------------|------|--------|------------------|------|----------------------|------|-------------|------|
|          |                | AWG       | mm <sup>2</sup> | AWG       | mm        | Inch             | mm   |        | Inch             | mm   | Inch                 | mm   | pF/ft       | pF/m |
| 1706*    | 4000           | 20        | 0.52            | 26/34     | 26 x 0.16 | 0.182            | 4.62 | Braid  | 0.030            | 0.76 | 0.031                | 0.79 | 38          | 125  |
| 1703     | 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  |
| 1702**   | 1000           | 26        | 0.14            | 7/34      | 7 x 0.16  | 0.101            | 2.57 | Spiral | 0.020            | 0.51 | 0.016                | 0.41 | 35          | 115  |
| 1705     | 1000           | 24        | 0.20            | 10/34     | 10 x 0.16 | 0.106            | 2.69 | Spiral | 0.020            | 0.51 | 0.016                | 0.41 | 41          | 135  |

\*UL AWM 1150, 300 V.

\*\*1702 has 3 strands of tinned copper and 4 strands of tinned Copperweld.

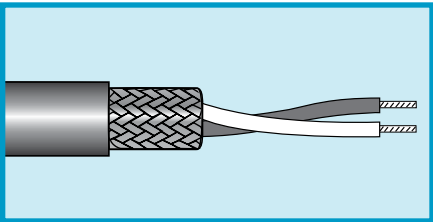
2-Conductor Cable for Low-Impedance Microphones

| Part No. | Voltage Rating | Wire Size |                 | Stranding |           | Nominal Diameter |      | Shield | Jacket Thickness |      | Insulation Thickness |      | Capacitance* |      |
|----------|----------------|-----------|-----------------|-----------|-----------|------------------|------|--------|------------------|------|----------------------|------|--------------|------|
|          |                | AWG       | mm <sup>2</sup> | AWG       | mm        | Inch             | mm   |        | Inch             | mm   | Inch                 | mm   | pF/ft        | pF/m |
| 1709     | 1000           | 24        | 0.20            | 10/34     | 10 x 0.16 | 0.185            | 4.70 | Spiral | 0.030            | 0.76 | 0.016                | 0.41 | 32           | 105  |
| 1710     | 1000           | 22        | 0.38            | 19/34     | 19 x 0.16 | 0.239            | 6.07 | Braid  | 0.025            | 0.64 | 0.025                | 0.63 | 30           | 98   |
| 1712     | 600            | 20        | 0.52            | 26/34     | 26 x 0.16 | 0.221            | 5.61 | Braid  | 0.030            | 0.76 | 0.015                | 0.38 | 44           | 144  |

\*Capacitance between one conductor and remaining conductors connected to shield.

# Communication and Control

600 V Braid Shield, Multiconductor, PE, PVC  
Audio Cable



**Materials**

- Bare copper conductors
- Polyethylene insulation
- Tinned copper braid shield, 95% coverage
- PVC jacket

**Operating Temperature**

- -20°C to +60°C

**Availability**

- 100 ft (30.5 m)
- 1000 ft (305 m)

**Conductor Color Coding**

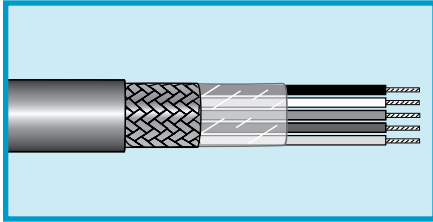
- 1771: White, blue  
Black, red, or orange jacket
- 1772: White, blue, white, blue  
Black, brown, slate, or yellow jacket

| Part No. | Conductors | 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 |
| 1771     | 2          | 23        | 0.29 | 60/40     | 60 x 0.08 | 0.243            | 6.17 | Braid  | 0.040            | 1.01 | 0.020                | 0.51 | 17.9        | 58.7 |
| 1772     | 4          | 25        | 0.20 | 40/40     | 40 x 0.08 | 0.239            | 6.07 | Braid  | 0.044            | 1.11 | 0.014                | 0.35 | 18          | 69.1 |



# Communication and Control

600 V Multiconductor, PE, PVC  
Braid Shield



## Operating Temperature

- -20°C to +60°C

## Conductor Color Coding

- Chart H (page 533)

## Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Clear polyester wrap
- Braided tinned copper shield, 85% coverage
- Slate PVC jacket

## Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

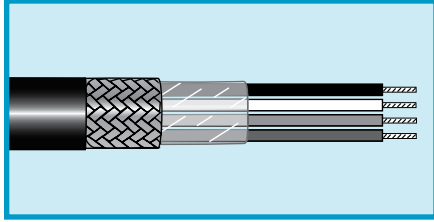
### 20 AWG (0.52 mm²)

Stranding: 26/34 (26 x 0.16 mm)  
Insulation thickness: 0.015 (0.38 mm)

| Part No. | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|----------|------------|------------------|-------|------------------|------|
|          |            | Inch             | mm    | Inch             | mm   |
| 1712     | 2          | 0.221            | 5.61  | 0.030            | 0.76 |
| 1713     | 3          | 0.248            | 6.30  | 0.035            | 0.88 |
| 1715     | 4          | 0.266            | 6.76  | 0.035            | 0.88 |
| 1716     | 5          | 0.285            | 7.24  | 0.035            | 0.88 |
| 1717     | 6          | 0.306            | 7.77  | 0.035            | 0.88 |
| 1719     | 8          | 0.327            | 8.31  | 0.035            | 0.88 |
| 1721     | 10         | 0.373            | 9.47  | 0.035            | 0.88 |
| 1723     | 12         | 0.384            | 9.75  | 0.035            | 0.88 |
| 1726     | 15         | 0.421            | 10.69 | 0.035            | 0.88 |
| 1728     | 20         | 0.462            | 11.73 | 0.035            | 0.88 |

# Communication and Control

## 600 V Multiconductor, Rubber, Polychloroprene Braid Shield



### Operating Temperature

- -20°C to +60°C

### Conductor Color Coding

- Chart H (page 533)

### Materials

- Stranded tinned copper conductors
- EPDM rubber insulation
- Clear polyester wrap
- Tinned copper braid shield, 85% coverage
- Black polychloroprene jacket

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

#### 18 AWG (0.82 mm<sup>2</sup>)

Stranding: 41/34 (41 x 0.16 mm)  
Insulation thickness: 0.020 (0.51 mm)

| Part No.    | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|-------------|------------|------------------|------|------------------|------|
|             |            | Inch             | mm   | Inch             | mm   |
| <b>1450</b> | 2          | 0.298            | 7.57 | 0.045            | 1.14 |
| <b>1454</b> | 6          | 0.392            | 9.96 | 0.045            | 1.14 |

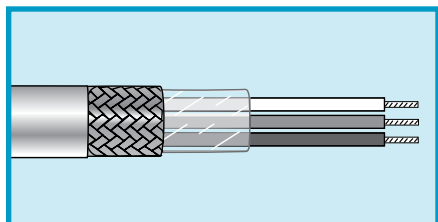
#### 16AWG (1.31 mm<sup>2</sup>)

Stranding: 65/34 (65 x 0.16 mm)  
Insulation thickness: 0.026 (0.65 mm)

| Part No.       | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|----------------|------------|------------------|------|------------------|------|
|                |            | Inch             | mm   | Inch             | mm   |
| <b>1450/16</b> | 2          | 0.327            | 8.31 | 0.036            | 0.91 |
| <b>1451/16</b> | 3          | 0.350            | 8.89 | 0.037            | 0.94 |

# Communication and Control

600 V Multiconductor, PTFE, FEP  
Braid Shield



**MIL-DTL-16878/4 (Type E)**  
**NEMA HP3-EXBEE**

## Operating Temperature

- -55°C to +200°C

## Conductor Color Coding

- Chart G (page 532)

## Materials

- Stranded silver-plated copper conductors
- PTFE insulation
- Clear polyester wrap
- Silver-plated copper braid shield, 90% coverage
- White FEP jacket

## Availability

100 ft (30.5 m)

1000 ft (305 m)\*

\*May contain multiple lengths

### 24 AWG (0.24 mm<sup>2</sup>)

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   |
| <b>2831</b>   | 1          | 0.087            | 2.21 | 0.010            | 0.25 |
| <b>2831/2</b> | 2          | 0.132            | 3.35 | 0.010            | 0.25 |
| <b>2831/3</b> | 3          | 0.139            | 3.53 | 0.010            | 0.25 |

### 22 AWG (0.38 mm<sup>2</sup>)

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   |
| <b>2834</b>   | 1          | 0.092            | 2.34 | 0.010            | 0.25 |
| <b>2834/2</b> | 2          | 0.142            | 3.61 | 0.010            | 0.25 |
| <b>2834/3</b> | 3          | 0.154            | 3.91 | 0.012            | 0.30 |

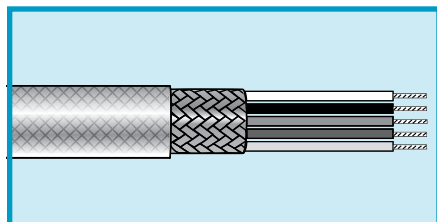
### 20 AWG (0.62 mm<sup>2</sup>)

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   |
| <b>2837/2</b> | 2          | 0.162            | 4.11 | 0.012            | 0.30 |
| <b>2837/3</b> | 3          | 0.171            | 4.34 | 0.012            | 0.30 |

# Communication and Control

600 V Multiconductor, TFE, Fiberglass  
Braid Shield



**MIL-DTL-16878/4 (Type E)**  
**NEMA HP3-EXBEE**

## Operating Temperature

- -55°C to +200°C

## Conductor Color Coding

- Chart G (page 532)

## Materials

- Stranded silver-plated copper conductors
- TFE insulation
- Silver-plated copper braid shield, 90% coverage
- White PTFE-impregnated fiberglass jacket

## Availability

100 ft (30.5 m)

1000 ft (305 m)\*

\*May contain multiple lengths

### 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   |
| <b>2811</b>   | 1          | 0.100            | 2.54 | 0.012            | 0.30 |
| <b>2811/2</b> | 2          | 0.145            | 3.68 | 0.012            | 0.30 |
| <b>2811/3</b> | 3          | 0.152            | 3.86 | 0.012            | 0.30 |
| <b>2811/4</b> | 4          | 0.164            | 4.17 | 0.012            | 0.30 |
| <b>2811/5</b> | 5          | 0.177            | 4.50 | 0.012            | 0.30 |
| <b>2811/7</b> | 7          | 0.191            | 4.85 | 0.012            | 0.30 |

### 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   |
| <b>2814/2</b> | 2          | 0.155            | 3.94 | 0.012            | 0.30 |
| <b>2814/4</b> | 4          | 0.176            | 4.47 | 0.012            | 0.30 |
| <b>2814/6</b> | 6          | 0.206            | 5.23 | 0.012            | 0.30 |

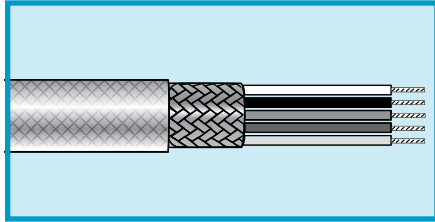
### 20 AWG (0.62 mm²)

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   |
| <b>2817/2</b> | 2          | 0.171            | 4.34 | 0.012            | 0.30 |
| <b>2817/3</b> | 3          | 0.180            | 4.57 | 0.012            | 0.30 |
| <b>2817/4</b> | 4          | 0.195            | 4.95 | 0.012            | 0.30 |
| <b>2817/5</b> | 5          | 0.212            | 5.38 | 0.012            | 0.30 |
| <b>2817/6</b> | 6          | 0.230            | 5.84 | 0.012            | 0.30 |

# Communication and Control

## 600 V Multiconductor, TFE, Fiberglass Braid Shield



### MIL-DTL-16878/4 (Type E) NEMA HP3

#### Operating Temperature

- -55°C to +200°C

#### Conductor Color Coding

- Chart G (page 532)

#### Materials

- Stranded silver-plated copper conductors
- TFE insulation
- Silver-plated copper braid shield, 90% coverage
- White PTFE-impregnated fiberglass jacket

#### Availability

100 ft (30.5 m)

1000 ft (305 m)\*

\*May contain multiple lengths

#### 18 AWG (0.96 mm<sup>2</sup>)

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   |
| <b>2819</b>   | 1          | 0.125            | 3.18 | 0.012            | 0.30 |
| <b>2819/2</b> | 2          | 0.195            | 4.95 | 0.012            | 0.30 |
| <b>2819/3</b> | 3          | 0.206            | 5.23 | 0.012            | 0.30 |
| <b>2819/4</b> | 4          | 0.224            | 5.69 | 0.012            | 0.30 |
| <b>2819/5</b> | 5          | 0.245            | 6.22 | 0.012            | 0.30 |

#### 16 AWG (1.32 mm<sup>2</sup>)

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   |
| <b>2820</b>   | 1          | 0.135            | 3.43 | 0.012            | 0.30 |
| <b>2820/2</b> | 2          | 0.215            | 5.46 | 0.012            | 0.30 |
| <b>2820/3</b> | 3          | 0.228            | 5.79 | 0.012            | 0.30 |
| <b>2820/4</b> | 4          | 0.249            | 6.32 | 0.012            | 0.30 |

#### 14 AWG (1.23 mm<sup>2</sup>)

Stranding: 19/27 (19 x 0.36 mm)  
Insulation thickness: 0.012 (0.30 mm)

| Part No.      | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|---------------|------------|------------------|------|------------------|------|
|               |            | Inch             | mm   | Inch             | mm   |
| <b>2804/2</b> | 1          | 0.245            | 6.22 | 0.012            | 0.30 |
| <b>2804/3</b> | 2          | 0.260            | 6.60 | 0.012            | 0.30 |

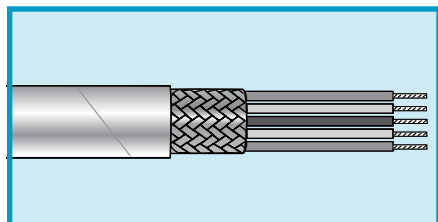
#### 12 AWG (3.08 mm<sup>2</sup>)

Stranding: 19/25 (19 x 0.46 mm)  
Insulation thickness: 0.012 (0.30 mm)

| Part No.      | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|---------------|------------|------------------|------|------------------|------|
|               |            | Inch             | mm   | Inch             | mm   |
| <b>2803/2</b> | 2          | 0.283            | 7.19 | 0.012            | 0.30 |

# Communication and Control

600 V Multiconductor, PTFE, PTFE Tape  
Braid Shield



**MIL-DTL-16878/4 (Type E)**  
**NEMA HP3-EXBEE**

## Operating Temperature

- -55°C to +200°C

## Conductor Color Coding

- Chart G (page 532)

## Materials

- Stranded silver-plated copper conductors
- PTFE insulation
- Silver-plated copper braid shield, 90% coverage
- White PTFE tape jacket

## Availability

100 ft (30.5 m)

1000 ft (305 m)\*

\*May contain multiple lengths

### 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   |
| <b>2821</b>   | 1          | 0.087            | 2.21 | 0.010            | 0.25 |
| <b>2821/2</b> | 2          | 0.136            | 3.45 | 0.012            | 0.30 |
| <b>2821/3</b> | 3          | 0.143            | 3.63 | 0.012            | 0.30 |
| <b>2821/4</b> | 4          | 0.155            | 3.94 | 0.012            | 0.30 |
| <b>2821/5</b> | 5          | 0.168            | 4.27 | 0.012            | 0.30 |
| <b>2821/6</b> | 6          | 0.182            | 4.62 | 0.012            | 0.30 |

### 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   |
| <b>2824</b>   | 1          | 0.092            | 2.34 | 0.010            | 0.25 |
| <b>2824/2</b> | 2          | 0.146            | 3.71 | 0.012            | 0.30 |
| <b>2824/3</b> | 3          | 0.154            | 3.91 | 0.012            | 0.30 |
| <b>2824/4</b> | 4          | 0.167            | 4.24 | 0.012            | 0.30 |
| <b>2824/5</b> | 5          | 0.182            | 4.62 | 0.012            | 0.30 |
| <b>2824/6</b> | 6          | 0.193            | 4.90 | 0.012            | 0.30 |

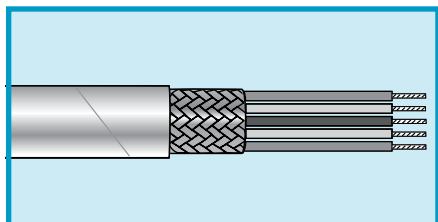
### 20 AWG (0.62 mm²)

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   |
| <b>2827</b>   | 1          | 0.100            | 2.54 | 0.010            | 0.25 |
| <b>2827/2</b> | 2          | 0.158            | 4.01 | 0.012            | 0.30 |
| <b>2827/3</b> | 3          | 0.171            | 4.34 | 0.012            | 0.30 |
| <b>2827/4</b> | 4          | 0.186            | 4.72 | 0.012            | 0.30 |
| <b>2827/5</b> | 5          | 0.203            | 5.16 | 0.012            | 0.30 |
| <b>2827/6</b> | 6          | 0.221            | 5.61 | 0.012            | 0.30 |

# Communication and Control

600 V Multiconductor, PTFE, PTFE Tape  
Braid Shield



**MIL-DTL-16878/4 (Type E)**  
**NEMA HP3-EXBEE**

## Operating Temperature

- -55°C to +200°C

## Conductor Color Coding

- Chart G (page 532)

## Materials

- Stranded silver-plated copper conductors
- PTFE insulation
- Silver-plated copper braid shield, 90% coverage
- White PTFE tape jacket

## Availability

100 ft (30.5 m)

1000 ft (305 m)\*

\*May contain multiple lengths

### 18 AWG (0.96 mm<sup>2</sup>)

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   |
| <b>2829/2</b> | 2          | 0.186            | 4.72 | 0.012            | 0.30 |
| <b>2829/3</b> | 3          | 0.197            | 5.00 | 0.012            | 0.30 |
| <b>2829/4</b> | 4          | 0.215            | 5.46 | 0.012            | 0.30 |

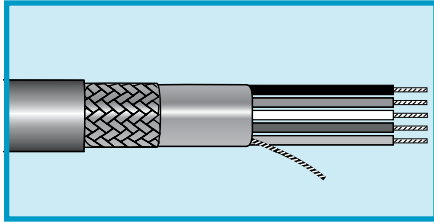
### 16 AWG (1.23 mm<sup>2</sup>)

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   |
| <b>2826</b>   | 1          | 0.122            | 3.10 | 0.010            | 0.25 |
| <b>2826/2</b> | 2          | 0.206            | 5.23 | 0.012            | 0.30 |
| <b>2826/3</b> | 3          | 0.219            | 5.56 | 0.012            | 0.30 |
| <b>2826/4</b> | 4          | 0.240            | 6.10 | 0.012            | 0.30 |

# Communication and Control

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



**UL AWM 2464 VW-1**  
**UL CL2**  
**CSA CMG FT4**

## Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CL2)
- -20°C to +60°C (CMG)

## Conductor Color Coding

- Chart D (page 531)

## Materials

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

## Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

### 28 AWG (0.08 mm²)

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

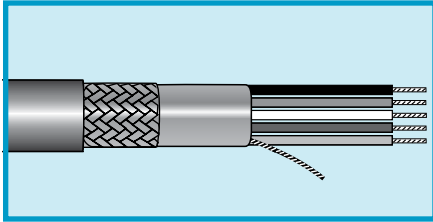
| Part No.        | Conductors | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|------------|------------------|-------|------------------|------|
|                 |            | Inch             | mm    | Inch             | mm   |
| <b>3463*</b>    | 3          | 0.171            | 4.34  | 0.035            | 0.89 |
| <b>3464C</b>    | 4          | 0.181            | 4.60  | 0.035            | 0.89 |
| <b>3465C</b>    | 5          | 0.191            | 4.85  | 0.035            | 0.89 |
| <b>3466C</b>    | 6          | 0.202            | 5.13  | 0.035            | 0.89 |
| <b>3467C</b>    | 7          | 0.202            | 5.13  | 0.035            | 0.89 |
| <b>3468C</b>    | 8          | 0.212            | 5.38  | 0.035            | 0.89 |
| <b>3469C</b>    | 9          | 0.223            | 5.66  | 0.035            | 0.89 |
| <b>3470C</b>    | 10         | 0.236            | 5.99  | 0.035            | 0.89 |
| <b>3470/15C</b> | 15         | 0.267            | 6.78  | 0.035            | 0.89 |
| <b>3470/25C</b> | 25         | 0.312            | 7.92  | 0.035            | 0.89 |
| <b>3470/37C</b> | 37         | 0.347            | 8.81  | 0.035            | 0.89 |
| <b>3470/50C</b> | 50         | 0.397            | 10.08 | 0.035            | 0.89 |

\*UL AWM 2464/CSA CMG only.



# Low Capacitance Data Cable

300 V Multiconductor, FPP, PVC  
Foil/Braid Shield



**UL AWM 2919 (30 V) VW-1**  
**UL CL2**  
**CSA CMG FT4**

## Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CL2)
- -20°C to +60°C (CMG)

## Conductor Color Coding

- Chart D (page 531) for 3-conductor to 9-conductor cables
- Chart F (page 532) for 25-conductor cables

## Materials

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

## Availability

1000 ft (305 m)

### 28 AWG (0.08 mm<sup>2</sup>)

Stranding: 7/36 (7 x 0.13 mm)  
Insulation thickness: 0.013 (0.33 mm)

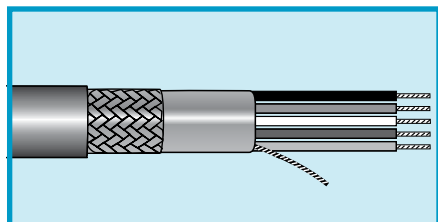
| Part No.*       | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|-----------------|------------|------------------|------|------------------|------|
|                 |            | Inch             | mm   | Inch             | mm   |
| <b>3483</b>     | 3          | 0.184            | 4.67 | 0.035            | 0.89 |
| <b>3484C</b>    | 4          | 0.195            | 4.95 | 0.035            | 0.89 |
| <b>3488C</b>    | 8          | 0.232            | 5.89 | 0.035            | 0.89 |
| <b>3489C</b>    | 9          | 0.245            | 6.22 | 0.035            | 0.89 |
| <b>3490/25C</b> | 25         | 0.348            | 8.84 | 0.035            | 0.89 |

Mutual capacitance: 12 pF/ft (39.4 pF/m)  
Ground capacitance: 20 pF/ft (65.6 pF/m)

\*C suffix part no. are CL2 approved.

# Communication and Control

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



**UL AWM 2464 VW-1**  
**UL CM**  
**CSA CMG FT4**

## Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

## Conductor Color Coding

- Chart F (page 532) for 15-conductor through 50-conductor cables
- See table below for 3-conductor through 10-conductor cables

## 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 mm<sup>2</sup>), 7/32 (7 x 0.22 mm)  
Tinned copper braid, 65% coverage
- Slate PVC jacket

## Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

### 24 AWG (0.22 mm<sup>2</sup>)

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   |
| <b>6327</b> | 3          | 0.185            | 4.70  | 0.032            | 0.81 |
| <b>6328</b> | 4          | 0.196            | 4.98  | 0.032            | 0.81 |
| <b>6329</b> | 5          | 0.209            | 5.31  | 0.032            | 0.81 |
| <b>6330</b> | 6          | 0.223            | 5.66  | 0.032            | 0.81 |
| <b>6331</b> | 7          | 0.223            | 5.66  | 0.032            | 0.81 |
| <b>6332</b> | 8          | 0.236            | 5.99  | 0.032            | 0.81 |
| <b>6333</b> | 9          | 0.250            | 6.35  | 0.032            | 0.81 |
| <b>6334</b> | 10         | 0.266            | 6.76  | 0.032            | 0.81 |
| <b>6335</b> | 15         | 0.292            | 7.42  | 0.032            | 0.81 |
| <b>6336</b> | 25         | 0.354            | 8.99  | 0.032            | 0.81 |
| <b>6337</b> | 37         | 0.398            | 10.11 | 0.032            | 0.81 |
| <b>6338</b> | 50         | 0.449            | 11.40 | 0.032            | 0.81 |

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

### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| <b>6339</b> | 3          | 0.198            | 5.03  | 0.032            | 0.81 |
| <b>6340</b> | 4          | 0.211            | 5.36  | 0.032            | 0.81 |
| <b>6341</b> | 5          | 0.226            | 5.74  | 0.032            | 0.81 |
| <b>6342</b> | 6          | 0.241            | 6.12  | 0.032            | 0.81 |
| <b>6343</b> | 7          | 0.241            | 6.12  | 0.032            | 0.81 |
| <b>6344</b> | 8          | 0.256            | 6.50  | 0.032            | 0.81 |
| <b>6345</b> | 9          | 0.272            | 6.91  | 0.032            | 0.81 |
| <b>6346</b> | 10         | 0.290            | 7.37  | 0.032            | 0.81 |
| <b>6347</b> | 15         | 0.320            | 8.13  | 0.032            | 0.81 |
| <b>6348</b> | 25         | 0.390            | 9.91  | 0.032            | 0.81 |
| <b>6349</b> | 37         | 0.440            | 11.18 | 0.032            | 0.81 |
| <b>6350</b> | 50         | 0.540            | 13.72 | 0.053            | 1.35 |

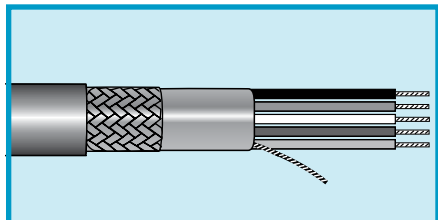
Mutual capacitance: 36 pF/ft (118 pF/m)  
Ground capacitance: 65 pF/ft (213 pF/m)

### Color Coding: 3 through 10 Conductors

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

# Communication and Control

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



**UL AWM 2919 (30 V) VW-1**  
**UL CM**  
**CSA CMH FT1**

## Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMH)

## Conductor Color Coding

- Chart F (page 532) for 15 through 37 conductors. Other parts, see table at right.

## 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)

## 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 |      |
|-------------|------------|------------------|-------|------------------|------|
|             |            | Inch             | mm    | Inch             | mm   |
| <b>6351</b> | 3          | 0.217            | 5.51  | 0.035            | 0.89 |
| <b>6352</b> | 4          | 0.231            | 5.87  | 0.035            | 0.89 |
| <b>6353</b> | 5          | 0.248            | 6.30  | 0.035            | 0.89 |
| <b>6354</b> | 6          | 0.265            | 6.73  | 0.035            | 0.89 |
| <b>6355</b> | 7          | 0.265            | 6.73  | 0.035            | 0.89 |
| <b>6356</b> | 8          | 0.282            | 7.16  | 0.035            | 0.89 |
| <b>6357</b> | 9          | 0.300            | 7.62  | 0.035            | 0.89 |
| <b>6358</b> | 10         | 0.320            | 8.13  | 0.035            | 0.89 |
| <b>6359</b> | 15         | 0.353            | 8.97  | 0.035            | 0.89 |
| <b>6360</b> | 25         | 0.432            | 10.97 | 0.035            | 0.89 |
| <b>6361</b> | 37         | 0.514            | 13.06 | 0.048            | 1.22 |

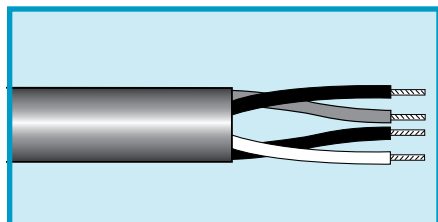
Mutual capacitance: 12 pF/ft (39.4 pF/m)  
Ground capacitance: 22 pF/ft (72.2 pF/m)

## Color Coding

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

# Communication and Control

## 300 V Unshielded, Multipair, PVC, PVC



**UL AWM 2464, 2576 VW-1**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart A (page 528)

### Materials

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

### Availability

1000 ft (305 m)

#### 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   |
| <b>1300C</b>    | 1     | 0.157            | 3.99  | 0.032            | 0.81 |
| <b>1302C</b>    | 2     | 0.215            | 5.46  | 0.032            | 0.81 |
| <b>1304C</b>    | 3     | 0.226            | 5.74  | 0.032            | 0.81 |
| <b>1305C</b>    | 4     | 0.246            | 6.25  | 0.032            | 0.81 |
| <b>1306C</b>    | 5     | 0.267            | 6.78  | 0.032            | 0.81 |
| <b>1307C</b>    | 6     | 0.289            | 7.34  | 0.032            | 0.81 |
| <b>1308/11C</b> | 11    | 0.362            | 9.19  | 0.032            | 0.81 |
| <b>1309C</b>    | 13    | 0.382            | 9.70  | 0.032            | 0.81 |
| <b>1310C</b>    | 16    | 0.414            | 10.52 | 0.032            | 0.81 |
| <b>1313C</b>    | 27    | 0.537            | 13.64 | 0.040            | 1.02 |

#### UL AWM 2576

#### 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   |
| <b>1317C</b>    | 2     | 0.231            | 5.87  | 0.032            | 0.81 |
| <b>1318C</b>    | 3     | 0.244            | 6.20  | 0.032            | 0.81 |
| <b>1319C</b>    | 4     | 0.265            | 6.73  | 0.032            | 0.81 |
| <b>1320C</b>    | 5     | 0.289            | 7.34  | 0.032            | 0.81 |
| <b>1322C</b>    | 6     | 0.320            | 8.13  | 0.035            | 0.89 |
| <b>1323C</b>    | 9     | 0.371            | 9.42  | 0.035            | 0.89 |
| <b>1324C</b>    | 11    | 0.401            | 10.19 | 0.035            | 0.89 |
| <b>1325C</b>    | 12    | 0.414            | 10.52 | 0.035            | 0.89 |
| <b>1327C</b>    | 15    | 0.460            | 11.68 | 0.040            | 1.02 |
| <b>1327/19C</b> | 19    | 0.493            | 12.52 | 0.040            | 1.02 |

#### UL AWM 2464

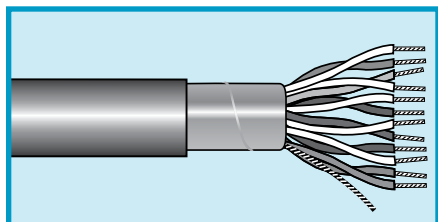
#### 18AWG (0.81 mm²)

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   |
| <b>1131C</b> | 1     | 0.225            | 5.72  | 0.032            | 0.81 |
| <b>1132C</b> | 2     | 0.332            | 8.43  | 0.035            | 0.89 |
| <b>1133C</b> | 3     | 0.356            | 9.04  | 0.037            | 0.94 |
| <b>1134C</b> | 4     | 0.396            | 10.06 | 0.040            | 1.02 |
| <b>1135C</b> | 5     | 0.444            | 11.28 | 0.045            | 1.14 |
| <b>1136C</b> | 6     | 0.484            | 12.29 | 0.045            | 1.14 |
| <b>1138C</b> | 8     | 0.534            | 13.56 | 0.050            | 1.27 |
| <b>1139C</b> | 9     | 0.584            | 14.83 | 0.055            | 1.40 |
| <b>1149C</b> | 19    | 0.791            | 20.09 | 0.070            | 1.78 |

# Communication and Control

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



**UL AWM 2464**

**UL CM**

**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart K (page 529)

### 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)

### 24 AWG (0.23 mm<sup>2</sup>)

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   |
| <b>5471C</b>      | 1     | 0.156            | 3.96  | 0.032            | 0.81 |
| <b>5472C</b>      | 2     | 0.212            | 5.38  | 0.032            | 0.81 |
| <b>5473C</b>      | 3     | 0.224            | 5.69  | 0.032            | 0.81 |
| <b>5474C</b>      | 4     | 0.243            | 6.17  | 0.032            | 0.81 |
| <b>5475C</b>      | 5     | 0.270            | 6.86  | 0.035            | 0.89 |
| <b>5476C</b>      | 6     | 0.292            | 7.42  | 0.035            | 0.89 |
| <b>5477C</b>      | 7     | 0.292            | 7.42  | 0.035            | 0.89 |
| <b>5478C</b>      | 8     | 0.316            | 8.03  | 0.035            | 0.89 |
| <b>5479C</b>      | 9     | 0.343            | 8.71  | 0.037            | 0.83 |
| <b>5480C</b>      | 10    | 0.373            | 9.47  | 0.040            | 1.02 |
| <b>5480/15C</b>   | 15    | 0.415            | 10.54 | 0.040            | 1.02 |
| <b>5480/19C</b>   | 19    | 0.445            | 11.30 | 0.040            | 1.02 |
| <b>5480/25C</b>   | 25    | 0.527            | 13.39 | 0.045            | 1.14 |
| <b>5480/50C *</b> | 50    | 0.699            | 17.75 | 0.053            | 1.35 |

\*Color code chart C.

### Individually Shielded, 22 AWG (0.35 mm<sup>2</sup>), 7/30 (7 x .025) Tinned Copper Drain Wire UL VW-1

### 20 AWG (0.56 mm<sup>2</sup>)

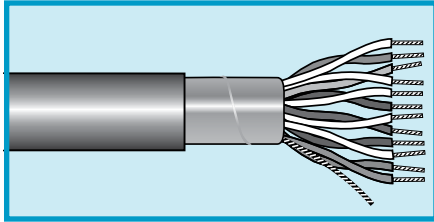
Stranding: 7/28 (7 x 0.33 mm)  
Insulation thickness: 0.010 (0.25 mm)

| Part No.    | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|-------------|-------|------------------|------|------------------|------|
|             |       | Inch             | mm   | Inch             | mm   |
| <b>6416</b> | 2     | 0.295            | 7.49 | 0.041            | 1.04 |

Mutual capacitance: 55 pF/ft (180 pF/m)  
Ground capacitance: 95 pF/ft (312 pF/m)

# Communication and Control

300 V Overall Foil Shield, Multipair, PVC, PVC



**UL AWM 2464 VW-1**  
**UL CM**  
**CSA CMG FT4**

## Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

## Conductor Color Coding

- Chart K (page 529)

## Materials

- Solid 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)

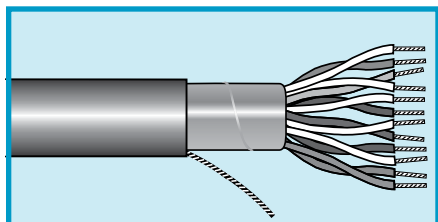
### 22 AWG (0.32 mm²)

Stranding: Solid  
 Insulation thickness: 0.013 (0.33 mm)

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>5902C</b>    | 2     | 0.238            | 6.05  | 0.032            | 0.81 |
| <b>5905C</b>    | 4     | 0.273            | 6.93  | 0.032            | 0.81 |
| <b>5906C</b>    | 6     | 0.329            | 8.36  | 0.035            | 0.89 |
| <b>5909C</b>    | 9     | 0.385            | 9.78  | 0.037            | 0.94 |
| <b>5909/15C</b> | 15    | 0.471            | 11.96 | 0.040            | 1.02 |
| <b>5909/19C</b> | 19    | 0.506            | 12.85 | 0.040            | 1.02 |

# Communication and Control

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



**UL AWM 2576 VW-1 (150 V)**  
**UL AWM 2464 VW-1 (300 V)**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart A (page 528)

### 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)

### 150 V, AWM 2576

#### 22 AWG (0.35 mm<sup>2</sup>)

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   |
| <b>2211C</b>    | 1     | 0.168            | 4.27  | 0.032            | 0.81 |
| <b>2212C</b>    | 2     | 0.232            | 5.89  | 0.032            | 0.81 |
| <b>2213C</b>    | 3     | 0.245            | 6.22  | 0.032            | 0.81 |
| <b>2214C</b>    | 4     | 0.266            | 6.76  | 0.032            | 0.81 |
| <b>2215C</b>    | 5     | 0.290            | 7.37  | 0.032            | 0.81 |
| <b>2216C</b>    | 6     | 0.315            | 8.00  | 0.032            | 0.81 |
| <b>2219C</b>    | 9     | 0.372            | 9.45  | 0.035            | 0.89 |
| <b>2219/12C</b> | 12    | 0.415            | 10.54 | 0.035            | 0.89 |
| <b>2219/15C</b> | 15    | 0.451            | 11.46 | 0.035            | 0.89 |
| <b>2219/19C</b> | 19    | 0.494            | 12.55 | 0.040            | 1.02 |
| <b>2219/23C</b> | 23    | 0.545            | 13.84 | 0.040            | 1.02 |
| <b>2219/27C</b> | 27    | 0.589            | 14.96 | 0.040            | 1.02 |

### 300 V, AWM 2464

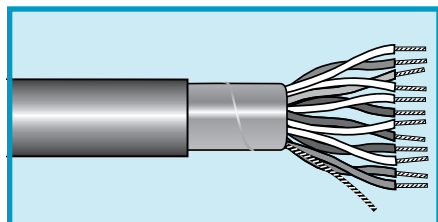
#### 18 AWG (0.81 mm<sup>2</sup>)

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   |
| <b>2241C</b>    | 1     | 0.226            | 5.74  | 0.032            | 0.81 |
| <b>2242C</b>    | 2     | 0.333            | 8.46  | 0.035            | 0.89 |
| <b>2243C</b>    | 3     | 0.357            | 9.07  | 0.037            | 0.94 |
| <b>2244C</b>    | 4     | 0.397            | 10.08 | 0.040            | 1.02 |
| <b>2245C</b>    | 5     | 0.445            | 11.30 | 0.045            | 1.14 |
| <b>2246C</b>    | 6     | 0.485            | 12.32 | 0.045            | 1.14 |
| <b>2249C</b>    | 9     | 0.585            | 14.86 | 0.055            | 1.40 |
| <b>2249/12C</b> | 12    | 0.652            | 16.56 | 0.055            | 1.40 |
| <b>2249/19C</b> | 19    | 0.792            | 20.12 | 0.070            | 1.78 |

# Communication and Control

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



**UL PLTC/CM**  
**UL VW-1**  
**UL Sunlight Resistant**  
**CSA CMG FT4**

### Operating Temperature

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

### Conductor Color Coding

- Black and red pairs, numbered

### Materials

- Stranded tinned copper conductors
- PVC insulation
- Aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward
- Stranded tinned copper drain wire, 24 AWG (0.22 mm<sup>2</sup>), 7/32 (7 x 0.20)
- Slate PVC jacket

### Availability

500 ft (152 m)  
 1000 ft (305 m)

### 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm)  
 Insulation thickness: 0.013 (0.33 mm)

| Part No.    | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-------------|-------|------------------|-------|------------------|------|
|             |       | Inch             | mm    | Inch             | mm   |
| <b>6417</b> | 2     | 0.267            | 6.78  | 0.038            | 0.97 |
| <b>6418</b> | 3     | 0.291            | 7.39  | 0.043            | 1.09 |
| <b>6419</b> | 4     | 0.315            | 8.00  | 0.043            | 1.09 |
| <b>6420</b> | 6     | 0.370            | 9.40  | 0.043            | 1.09 |
| <b>6421</b> | 9     | 0.447            | 11.35 | 0.053            | 1.35 |
| <b>6422</b> | 11    | 0.480            | 12.19 | 0.053            | 1.35 |
| <b>6423</b> | 15    | 0.545            | 13.84 | 0.053            | 1.35 |
| <b>6424</b> | 19    | 0.593            | 15.06 | 0.063            | 1.60 |
| <b>6425</b> | 27    | 0.698            | 17.73 | 0.063            | 1.60 |
| <b>6426</b> | 51    | 0.914            | 23.22 | 0.075            | 1.91 |

### 18 AWG (0.96 mm<sup>2</sup>)

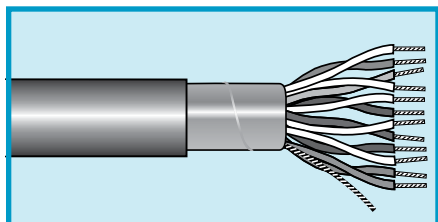
Stranding: 19/30 (19 x 0.25 mm)  
 Insulation thickness: 0.016 (0.41 mm)

| Part No.    | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-------------|-------|------------------|-------|------------------|------|
|             |       | Inch             | mm    | Inch             | mm   |
| <b>6427</b> | 2     | 0.362            | 9.19  | 0.043            | 1.09 |
| <b>6428</b> | 3     | 0.403            | 10.24 | 0.053            | 1.35 |
| <b>6429</b> | 4     | 0.438            | 11.13 | 0.053            | 1.35 |
| <b>6430</b> | 6     | 0.518            | 13.16 | 0.053            | 1.35 |
| <b>6431</b> | 9     | 0.622            | 15.80 | 0.063            | 1.60 |
| <b>6432</b> | 11    | 0.671            | 17.04 | 0.063            | 1.60 |
| <b>6433</b> | 15    | 0.751            | 19.08 | 0.063            | 1.60 |



## Communication and Control

300 V Overall Foil Shield, Multipair, HDPE, PVC  
Low Capacitance, Extended Distance Cable



**UL AWM 2919 (30 V) VW-1**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart M (page 530)

### Materials

- Stranded tinned copper conductors
- High-density polyethylene insulation
- Aluminum/polyester/aluminum foil shield, 25% overlap min.  
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)

### 24 AWG (0.22 mm²)

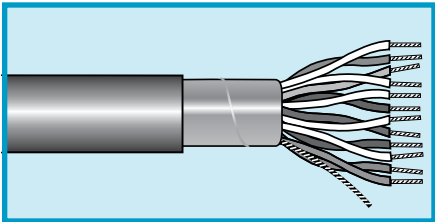
Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.010 (0.25 mm)

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>6083C</b>    | 3     | 0.235            | 5.97  | 0.035            | 0.89 |
| <b>6084C</b>    | 4     | 0.254            | 6.45  | 0.035            | 0.89 |
| <b>6087C</b>    | 7     | 0.297            | 7.54  | 0.035            | 0.89 |
| <b>6089C</b>    | 9     | 0.342            | 8.69  | 0.035            | 0.89 |
| <b>6089/18C</b> | 18    | 0.440            | 11.18 | 0.035            | 0.89 |

Characteristic impedance: 100 ohms  
Mutual capacitance: 15 pF/ft (49.2 pF/m)  
Ground capacitance: 27 pF/ft (88.6 pF/m)

# Communication and Control

300 V Overall Foil Shield, Multipair, PE, PVC  
Low Capacitance Data Cable



**UL AWM 2919 (30 V) VW-1**  
**UL CM**  
**CSA CMH FT1**

**Operating Temperature**

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMH)

**Conductor Color Coding**

- Chart M (page 530)

**Materials**

- Stranded tinned copper conductors
- Polyethylene 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**

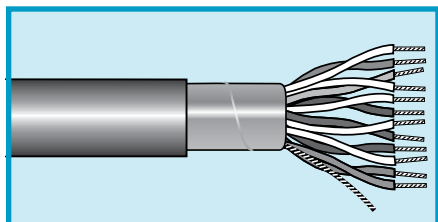
100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

| 24 AWG (0.22 mm²)                                                      |       |                  |       |                  |      |
|------------------------------------------------------------------------|-------|------------------|-------|------------------|------|
| Stranding: 7/32 (7 x 0.20 mm)<br>Insulation thickness: 0.016 (0.41 mm) |       |                  |       |                  |      |
| Part No.                                                               | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|                                                                        |       | Inch             | mm    | Inch             | mm   |
| 6301                                                                   | 6     | 0.351            | 8.92  | 0.035            | 0.89 |
| 6304                                                                   | 12.5  | 0.455            | 11.56 | 0.035            | 0.89 |

Characteristic impedance: 120 ohms  
Mutual capacitance: 12.8 pF/ft (42 pF/m)  
Ground capacitance: 23 pF/ft (75.4 pF/m)

# Communication and Control

## 300 V Overall Foil Shield, Multipair, FPP, PVC Low Capacitance Data Cable



**UL AWM 2919 (30 V) VW-1  
UL CM  
CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart A (page 528)

### Materials

- Stranded tinned copper conductors
- Foam 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

### Availability

500 ft (152 m)  
1000 ft (305 m)

### 24 AWG (0.22 mm²)

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

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>6202C</b>    | 2     | 0.258            | 6.55  | 0.035            | 0.89 |
| <b>6203C</b>    | 3     | 0.272            | 6.91  | 0.035            | 0.89 |
| <b>6204C</b>    | 4.5*  | 0.304            | 7.72  | 0.035            | 0.89 |
| <b>6205C</b>    | 5     | 0.323            | 8.20  | 0.035            | 0.89 |
| <b>6206C</b>    | 6     | 0.351            | 8.92  | 0.035            | 0.89 |
| <b>6207C</b>    | 7     | 0.351            | 8.92  | 0.035            | 0.89 |
| <b>6208C</b>    | 8     | 0.379            | 9.63  | 0.035            | 0.89 |
| <b>6209C</b>    | 9     | 0.408            | 10.36 | 0.035            | 0.89 |
| <b>6210C</b>    | 10    | 0.441            | 11.20 | 0.035            | 0.89 |
| <b>6210/12C</b> | 12.5* | 0.455            | 11.56 | 0.035            | 0.89 |
| <b>6210/15C</b> | 15    | 0.496            | 12.60 | 0.035            | 0.89 |
| <b>6210/18C</b> | 18.5* | 0.554            | 14.07 | 0.050            | 1.27 |
| <b>6210/25C</b> | 25    | 0.655            | 16.64 | 0.050            | 1.27 |

\*Single conductor colors: 4.5 = black, 12.5 = red, 18.5 = white

Characteristic impedance: 105 ohms  
Mutual capacitance: 12.5 pF/ft (41 pF/m)  
Ground capacitance: 22 pF/ft (72 pF/m)

### 22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.020 (0.51 mm)

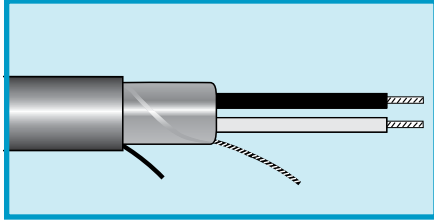
| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>6212C</b>    | 2     | 0.304            | 7.72  | 0.035            | 0.89 |
| <b>6213C</b>    | 3     | 0.322            | 8.18  | 0.035            | 0.89 |
| <b>6216C</b>    | 6     | 0.420            | 10.67 | 0.035            | 0.89 |
| <b>6217C</b>    | 7     | 0.420            | 10.67 | 0.035            | 0.89 |
| <b>6218C</b>    | 8     | 0.456            | 11.58 | 0.035            | 0.89 |
| <b>6220C</b>    | 10    | 0.563            | 14.30 | 0.050            | 1.27 |
| <b>6220/12C</b> | 12.5* | 0.580            | 14.73 | 0.050            | 1.27 |
| <b>6220/15C</b> | 15    | 0.631            | 16.03 | 0.050            | 1.27 |
| <b>6220/18C</b> | 18.5* | 0.667            | 16.94 | 0.050            | 1.27 |
| <b>6220/25C</b> | 25    | 0.793            | 20.14 | 0.050            | 1.27 |

\*Single conductor colors: 12.5 = red, 18.5 = white

Characteristic impedance: 105 ohms  
Mutual capacitance: 12.5 pF/ft (41 pF/m)  
Ground capacitance: 22 pF/ft (72 pF/m)

# Communication and Control

## 600 V Overall Foil Shield, Multipair, PE, PVC



### UL AWM 2106 VW-1

#### Operating Temperature

- 20°C to +60°C

#### Conductor Color Coding

- Black, clear

#### Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Aluminum/polyester foil shield, 25% overlap min.  
Foil facing outward
- 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)

#### 16 AWG (1.32 mm<sup>2</sup>)

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

| Part No. | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|----------|-------|------------------|------|------------------|------|
|          |       | Inch             | mm   | Inch             | mm   |
| 2471     | 1     | 0.314            | 7.98 | 0.035            | 0.89 |

Mutual capacitance: 20.5 pF/ft (67.3 pF/m)  
Ground capacitance: 37 pF/ft (121.4 pF/m)

#### 14 AWG (1.94 mm<sup>2</sup>)

Stranding: 19/27 (19 x 0.36 mm)  
Insulation thickness: 0.032 (0.81 mm)

| Part No. | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|----------|-------|------------------|------|------------------|------|
|          |       | Inch             | mm   | Inch             | mm   |
| 2472     | 1     | 0.344            | 8.74 | 0.035            | 0.89 |

Mutual capacitance: 22.7 pF/ft (74.5 pF/m)  
Ground capacitance: 41 pF/ft (134.5 pF/m)

#### 12 AWG (3.08 mm<sup>2</sup>)

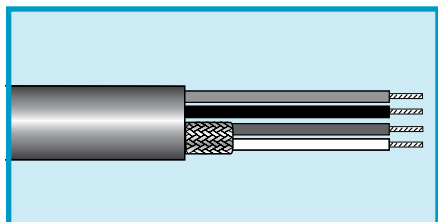
Stranding: 19/25 (19 x 0.45 mm)  
Insulation thickness: 0.037 (0.94 mm)

| Part No. | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|----------|-------|------------------|-------|------------------|------|
|          |       | Inch             | mm    | Inch             | mm   |
| 2473     | 1     | 0.412            | 10.46 | 0.040            | 1.02 |

Mutual capacitance: 23.9 pF/ft (78.4 pF/m)  
Ground capacitance: 43 pF/ft (141.1 pF/m)

## Communication and Control

400 V Multiconductor, Multipair, PE, PVC  
Foil Shielded Pairs and Overall Foil Shield



### 25 AWG (0.18 mm²)

Stranding: 3/33 TC +4/33 TCW (3 x 0.18 +4 x 0.18 mm)  
Insulation thickness: 0.013 (0.33 mm)

| Part No.    | Conductors | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|-------------|------------|-------|------------------|------|------------------|------|
|             |            |       | Inch             | mm   | Inch             | mm   |
| <b>2468</b> | 2          | 1     | 0.165            | 4.19 | 0.020            | 0.51 |

### Operating Temperature

- -20°C to +60°C

### Conductor Color Coding

- Conductors: 1 White, 2 Green  
Pair: Black-Red

### Materials

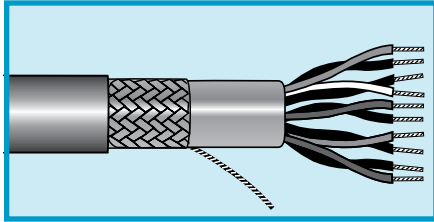
- Stranded tinned and steel-coated copper conductors
- Polyethylene insulation
- Aluminum/polyester foil shield, 25% overlap min.  
Foil facing outward
- Stranded tinned copper drain wire, 25 AWG (0.18 mm²), 7/33 (7 x 0.18 mm)
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

# Communication and Control

## 300 V Overall Foil/Braid Shield, Multipair, SR-PVC, PVC



**UL AWM 2464 VW-1**

**UL CL2**

**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CL2)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart A (page 528)

### 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% coverage
- Slate PVC jacket

### Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

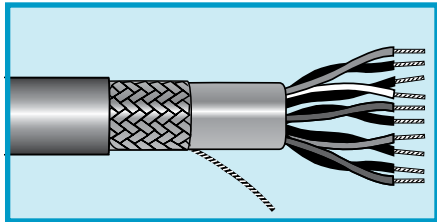
### 28 AWG (0.09 mm²)

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

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      | Availability   |
|-----------------|-------|------------------|-------|------------------|------|----------------|
|                 |       | Inch             | mm    | Inch             | mm   | Ft             |
| <b>3472C</b>    | 2     | 0.211            | 5.36  | 0.035            | 0.89 | 100            |
| <b>3474C</b>    | 4     | 0.235            | 5.97  | 0.035            | 0.89 | 100            |
| <b>3475C</b>    | 5     | 0.258            | 6.55  | 0.035            | 0.89 | 100, 1000      |
| <b>3476C</b>    | 6     | 0.275            | 6.99  | 0.035            | 0.89 | 100            |
| <b>3477C</b>    | 7     | 0.275            | 6.99  | 0.035            | 0.89 | 100            |
| <b>3480C</b>    | 10    | 0.332            | 8.43  | 0.035            | 0.89 | 100, 500, 1000 |
| <b>3480/12C</b> | 12.5  | 0.342            | 8.69  | 0.035            | 0.89 | 100, 500, 1000 |
| <b>3480/18C</b> | 18    | 0.389            | 9.88  | 0.035            | 0.89 | 100, 500, 1000 |
| <b>3480/25C</b> | 25    | 0.446            | 11.33 | 0.035            | 0.89 | 100, 500, 1000 |

# Communication and Control

## 300 V Overall Foil/Braid Shield, Multipair, SR-PVC, PVC



**UL AWM 2464 VW-1**

**UL CM**

**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- See tables

### Materials

- Stranded tinned copper conductors
- Semirigid PVC insulation
- Foil + braid shield  
Aluminum/polyester foil, 25% overlap min.  
Foil facing outward  
Stranded tinned copper drain wire, 24 AWG (0.23 mm<sup>2</sup>), 7/32 (7 x 0.20 mm)  
Tinned copper braid, 65% coverage
- Slate PVC jacket

### Availability

100 ft (30.5 m)

500 ft (152 m)

1000 ft (305 m)

### 24 AWG (0.23 mm<sup>2</sup>)

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

| Part No.    | Pairs | Nominal Diameter |       | Jacket Thickness |      | Color Code |
|-------------|-------|------------------|-------|------------------|------|------------|
|             |       | Inch             | mm    | Inch             | mm   |            |
| <b>6362</b> | 2     | 0.234            | 5.94  | 0.032            | 0.81 | M          |
| <b>6363</b> | 3     | 0.246            | 6.25  | 0.032            | 0.81 | M          |
| <b>6364</b> | 4     | 0.265            | 6.73  | 0.032            | 0.81 | M          |
| <b>6365</b> | 5     | 0.286            | 7.26  | 0.032            | 0.81 | M          |
| <b>6366</b> | 6     | 0.308            | 7.82  | 0.032            | 0.81 | M          |
| <b>6367</b> | 7     | 0.308            | 7.82  | 0.032            | 0.81 | M          |
| <b>6368</b> | 10    | 0.379            | 9.63  | 0.032            | 0.81 | M          |
| <b>6369</b> | 12.5  | 0.389            | 9.62  | 0.032            | 0.81 | M          |
| <b>6370</b> | 15    | 0.421            | 10.69 | 0.032            | 0.81 | M          |
| <b>6371</b> | 18    | 0.451            | 11.46 | 0.032            | 0.81 | M          |
| <b>6372</b> | 25    | 0.523            | 13.28 | 0.032            | 0.81 | M          |

### 22 AWG (0.35 mm<sup>2</sup>)

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

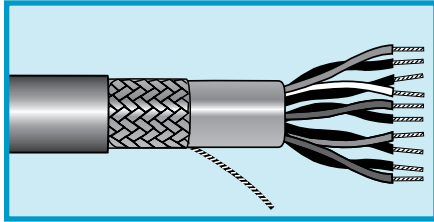
| Part No.    | Pairs | Nominal Diameter |       | Jacket Thickness |      | Color Code  |
|-------------|-------|------------------|-------|------------------|------|-------------|
|             |       | Inch             | mm    | Inch             | mm   |             |
| <b>6373</b> | 2     | 0.254            | 6.45  | 0.032            | 0.81 | A           |
| <b>6374</b> | 3     | 0.267            | 6.78  | 0.032            | 0.81 | A           |
| <b>6375</b> | 4     | 0.288            | 7.32  | 0.032            | 0.81 | A           |
| <b>6376</b> | 5     | 0.312            | 7.92  | 0.032            | 0.81 | Chart below |
| <b>6377</b> | 6     | 0.337            | 8.56  | 0.032            | 0.81 | A           |
| <b>6378</b> | 7     | 0.337            | 8.56  | 0.032            | 0.81 | A           |
| <b>6379</b> | 8     | 0.363            | 9.22  | 0.032            | 0.81 | Chart below |
| <b>6380</b> | 10    | 0.418            | 10.62 | 0.032            | 0.81 | A           |
| <b>6381</b> | 12.5  | 0.430            | 10.92 | 0.032            | 0.81 | A           |
| <b>6382</b> | 15    | 0.467            | 11.86 | 0.032            | 0.81 | A           |
| <b>6383</b> | 18    | 0.500            | 12.70 | 0.032            | 0.81 | A           |
| <b>6384</b> | 25    | 0.595            | 15.11 | 0.032            | 0.81 | A           |

### Color Code Chart (Part No. 6376 and 6379)

| Pair No. | Color        | Pair No. | Color         |
|----------|--------------|----------|---------------|
| 1        | Black, Red   | 5        | Black, Yellow |
| 2        | Black, White | 6        | Black, Brown  |
| 3        | Black, Green | 7        | Black, Orange |
| 4        | Black, Blue  | 8        | Red, White    |

# Communication and Control

300 V Overall Foil/Braid Shield, Multipair, PE, PVC  
Low Capacitance Data Cable



**UL AWM 2960 VW-1**  
**UL CL2**  
**CSA CMH FT1**

## Operating Temperature

- -20°C to +75°C (CL2)
- -20°C to +60°C (AWM, CMH)

## Conductor Color Coding

- Chart K (page 529)

## Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Foil + braid shielding  
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
- Slate PVC jacket

## Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

### 28 AWG (0.089 mm<sup>2</sup>)

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

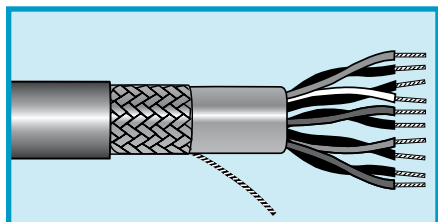
| Part No.    | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-------------|-------|------------------|-------|------------------|------|
|             |       | Inch             | mm    | Inch             | mm   |
| <b>6390</b> | 2     | 0.211            | 5.36  | 0.035            | 0.89 |
| <b>6391</b> | 3     | 0.220            | 5.59  | 0.035            | 0.89 |
| <b>6392</b> | 4     | 0.235            | 5.97  | 0.035            | 0.89 |
| <b>6393</b> | 5     | 0.252            | 6.40  | 0.035            | 0.89 |
| <b>6394</b> | 7     | 0.269            | 6.83  | 0.035            | 0.89 |
| <b>6395</b> | 9     | 0.305            | 7.75  | 0.035            | 0.89 |
| <b>6396</b> | 12    | 0.335            | 8.51  | 0.035            | 0.89 |
| <b>6397</b> | 13    | 0.341            | 8.66  | 0.035            | 0.89 |
| <b>6398</b> | 18    | 0.383            | 9.73  | 0.035            | 0.89 |
| <b>6399</b> | 25    | 0.440            | 11.18 | 0.035            | 0.89 |
| <b>6400</b> | 31    | 0.470            | 11.94 | 0.035            | 0.89 |

Characteristic impedance: 100 ohms  
Mutual capacitance: 15.5 pF/ft (50.9 pF/m)  
Ground capacitance: 27.5 pF/ft (90.2 pF/m)



# Communication and Control

## 300 V Overall Foil/Braid Shield, Multipair, PE, PVC Low Capacitance Data Cable



**UL AWM 2919 VW-1**  
**UL CM**  
**CSA CM FT1**

### 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
- Polyethylene insulation
- Foil + braid shielding  
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  
90% coverage
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

#### 24 AWG (0.23 mm²)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)  
65% braid coverage

| Part No.    | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-------------|-------|------------------|-------|------------------|------|
|             |       | Inch             | mm    | Inch             | mm   |
| <b>6401</b> | 2     | 0.280            | 7.11  | 0.035            | 0.89 |
| <b>6402</b> | 3     | 0.294            | 7.47  | 0.035            | 0.89 |
| <b>6403</b> | 4     | 0.318            | 8.08  | 0.035            | 0.89 |
| <b>6404</b> | 5     | 0.345            | 8.76  | 0.035            | 0.89 |
| <b>6405</b> | 6     | 0.373            | 9.47  | 0.035            | 0.89 |
| <b>6406</b> | 7     | 0.373            | 9.47  | 0.035            | 0.89 |
| <b>6407</b> | 9     | 0.430            | 10.92 | 0.035            | 0.89 |
| <b>6408</b> | 10    | 0.463            | 11.76 | 0.035            | 0.89 |
| <b>6409</b> | 12    | 0.478            | 12.14 | 0.035            | 0.89 |
| <b>6410</b> | 18    | 0.580            | 14.73 | 0.047            | 1.19 |
| <b>6411</b> | 25    | 0.671            | 17.04 | 0.047            | 1.19 |

Characteristic impedance: 100 ohms  
Mutual capacitance: 15.5 pF/ft (50.9 pF/m)  
Ground capacitance: 27.5 pF/ft (90.2 pF/m)

#### 24 AWG (0.23 mm²)

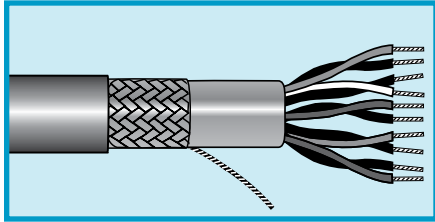
Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)  
90% braid coverage

| Part No.    | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|-------------|-------|------------------|------|------------------|------|
|             |       | Inch             | mm   | Inch             | mm   |
| <b>6412</b> | 1     | 0.208            | 5.28 | 0.035            | 0.89 |
| <b>6413</b> | 2     | 0.280            | 7.11 | 0.035            | 0.89 |
| <b>6414</b> | 3     | 0.294            | 7.47 | 0.035            | 0.89 |
| <b>6415</b> | 4     | 0.318            | 8.08 | 0.035            | 0.89 |

Characteristic impedance: 120 ohms  
Mutual capacitance: 12.8 pF/ft (42 pF/m)  
Ground capacitance: 23 pF/ft (75.5 pF/m)

## Communication and Control

300 V Overall Foil/Braid Shield, Multipair, FPP, PVC  
Low Capacitance Data Cable



**UL AWM 2919 (30 V) VW-1**  
**UL CL2**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CL2)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart M (page 530)

### Materials

- Stranded tinned copper conductors
- Foam polypropylene insulation
- Foil + braid shielding  
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)

### 28 AWG (0.089 mm²)

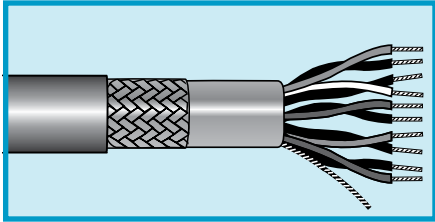
Stranding: 7/36 (7 x 0.13 mm)  
Insulation thickness: 0.013 (0.33 mm)

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>3492C</b>    | 2     | 0.230            | 5.84  | 0.035            | 0.89 |
| <b>3493C</b>    | 3     | 0.241            | 6.12  | 0.035            | 0.89 |
| <b>3494C</b>    | 4     | 0.265            | 6.73  | 0.035            | 0.89 |
| <b>3495C</b>    | 5     | 0.284            | 7.21  | 0.035            | 0.89 |
| <b>3496C</b>    | 6     | 0.305            | 7.75  | 0.035            | 0.89 |
| <b>3498C</b>    | 8     | 0.326            | 8.28  | 0.035            | 0.89 |
| <b>3500/12C</b> | 12.5  | 0.381            | 9.67  | 0.035            | 0.89 |
| <b>3500/18C</b> | 18    | 0.439            | 11.15 | 0.035            | 0.89 |
| <b>3500/25C</b> | 25    | 0.531            | 13.49 | 0.048            | 1.22 |

Mutual capacitance: 12 pF/ft (39.3 pF/m)  
Ground capacitance: 20 pF/ft (65.5 pF/m)

# Communication and Control

300 V Overall Foil/Braid Shield, Multipair, FPP, PVC  
Low Capacitance Data Cable



**UL AWM 2919 (30 V) VW-1**  
**UL CM**  
**CSA CMG FT4**

## Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

## Conductor Color Coding

- Chart M (page 530)

## Materials

- Stranded tinned copper conductors
- Foam polypropylene insulation
- Foil + braid shielding  
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

500 ft (152 m)  
1000 ft (305 m)

### 24 AWG (0.23 mm²)

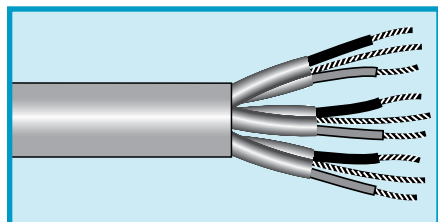
Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.016 (0.41 mm)

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>6222C</b>    | 2     | 0.280            | 7.11  | 0.035            | 0.89 |
| <b>6223C</b>    | 3     | 0.294            | 7.47  | 0.035            | 0.89 |
| <b>6224C</b>    | 4     | 0.318            | 8.08  | 0.035            | 0.89 |
| <b>6225C</b>    | 5     | 0.345            | 8.76  | 0.035            | 0.89 |
| <b>6226C</b>    | 6     | 0.373            | 9.47  | 0.035            | 0.89 |
| <b>6227C</b>    | 7     | 0.373            | 9.47  | 0.035            | 0.89 |
| <b>6228C</b>    | 8     | 0.401            | 10.19 | 0.035            | 0.89 |
| <b>6230C</b>    | 10    | 0.463            | 11.76 | 0.035            | 0.89 |
| <b>6230/12C</b> | 12.5  | 0.477            | 12.12 | 0.035            | 0.89 |
| <b>6230/15C</b> | 15    | 0.518            | 13.16 | 0.035            | 0.89 |
| <b>6230/18C</b> | 18    | 0.586            | 14.88 | 0.050            | 1.27 |
| <b>6230/25C</b> | 25    | 0.677            | 17.20 | 0.050            | 1.27 |

Characteristic impedance: 105 ohms  
Mutual capacitance: 12.5 pF/ft (41 pF/m)  
Ground capacitance: 22 pF/ft (72 pF/m)

# Communication and Control

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



**UL AWM 2919 (30 V) VW-1**  
**UL CL2**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart A (page 528)

### Materials

- Stranded tinned copper conductors
- PVC insulation
- Individual aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward
- Stranded tinned copper drain wire
- PVC jacket

### Availability

100 ft (30.5 m)  
 500 ft (152 m)  
 1000 ft (305 m)

### 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.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>6052C</b>    | 2     | 0.316            | 8.03  | 0.043            | 1.09 |
| <b>6053C</b>    | 3     | 0.334            | 8.48  | 0.043            | 1.09 |
| <b>6054C</b>    | 4     | 0.364            | 9.25  | 0.043            | 1.09 |
| <b>6056C</b>    | 6     | 0.451            | 11.46 | 0.053            | 1.35 |
| <b>6059C</b>    | 9     | 0.522            | 13.26 | 0.053            | 1.35 |
| <b>6059/11C</b> | 11    | 0.581            | 14.76 | 0.053            | 1.35 |
| <b>6059/15C</b> | 15    | 0.644            | 16.36 | 0.053            | 1.35 |
| <b>6059/19C</b> | 19    | 0.698            | 17.73 | 0.063            | 1.60 |
| <b>6059/27C</b> | 27    | 0.828            | 21.03 | 0.063            | 1.60 |

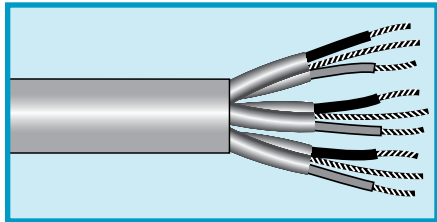
### 18 AWG (0.81 mm²)

Stranding: 16/30 (16 x 0.25 mm)  
 Insulation thickness: 0.016 (0.41 mm)  
 20 AWG (0.51 mm²) drain wire

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>6062C</b>    | 2     | 0.376            | 9.55  | 0.043            | 1.09 |
| <b>6063C</b>    | 3     | 0.418            | 10.62 | 0.053            | 1.35 |
| <b>6064C</b>    | 4     | 0.456            | 11.58 | 0.053            | 1.35 |
| <b>6066C</b>    | 6     | 0.541            | 13.74 | 0.053            | 1.35 |
| <b>6069C</b>    | 9     | 0.650            | 16.51 | 0.063            | 1.60 |
| <b>6069/15C</b> | 15    | 0.804            | 20.42 | 0.063            | 1.60 |

# Communication and Control

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



**UL 2493 VW-1**  
**UL CM, CMG**  
**CSA CMG FT4**

### Operating Temperature

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

### Conductor Color Coding

- Chart A (page 528)

### Materials

- Solid or stranded tinned copper conductors
- Polypropylene insulation
- Individual aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward
- Solid or stranded tinned copper drain wire, 22 AWG (0.35 mm<sup>2</sup>), 7/30 (7 x 0.25 mm)
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
 500 ft (152 m)  
 1000 ft (305 m)

#### 22 AWG (0.32 mm<sup>2</sup>)

Stranding: Solid  
 Insulation thickness: 0.010 (0.25 mm)

| Part No.     | Pairs | Nominal Diameter |       | Jacket Thickness |      | UL |
|--------------|-------|------------------|-------|------------------|------|----|
|              |       | Inch             | mm    | Inch             | mm   |    |
| <b>6000C</b> | 3     | 0.278            | 7.06  | 0.047            | 1.19 | CM |
| <b>6008C</b> | 15    | 0.492            | 12.50 | 0.047            | 1.19 | CM |

Characteristic impedance: 62 ohms  
 Mutual capacitance: 25 pF/ft (82 pF/m)  
 Ground capacitance: 45 pF/ft (147 pF/m)

#### 22 AWG (0.35 mm<sup>2</sup>)

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

| Part No.     | Pairs | Nominal Diameter |       | Jacket Thickness |      | UL  |
|--------------|-------|------------------|-------|------------------|------|-----|
|              |       | Inch             | mm    | Inch             | mm   |     |
| <b>6010C</b> | 3     | 0.298            | 7.57  | 0.048            | 1.22 | CMG |
| <b>6012C</b> | 6     | 0.378            | 9.60  | 0.048            | 1.22 | CMG |
| <b>6014C</b> | 9     | 0.436            | 11.07 | 0.048            | 1.22 | CMG |
| <b>6016C</b> | 11    | 0.483            | 12.27 | 0.048            | 1.22 | CMG |
| <b>6017C</b> | 12    | 0.483            | 12.27 | 0.048            | 1.22 | CMG |
| <b>6018C</b> | 15    | 0.565            | 14.35 | 0.063            | 1.60 | CM  |
| <b>6019C</b> | 17    | 0.593            | 15.06 | 0.063            | 1.60 | CM  |
| <b>6020C</b> | 19    | 0.593            | 15.06 | 0.063            | 1.60 | CM  |
| <b>6022C</b> | 27    | 0.698            | 17.73 | 0.063            | 1.60 | CM  |

Characteristic impedance: 55 ohms  
 Mutual capacitance: 28 pF/ft (91.9 pF/m)  
 Ground capacitance: 50 pF/ft (164 pF/m)

#### 20 AWG (0.56 mm<sup>2</sup>)

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

| Part No.     | Pairs | Nominal Diameter |       | Jacket Thickness |      | UL  |
|--------------|-------|------------------|-------|------------------|------|-----|
|              |       | Inch             | mm    | Inch             | mm   |     |
| <b>6032C</b> | 2     | 0.331            | 8.41  | 0.047            | 1.19 | CMG |
| <b>6033C</b> | 3     | 0.349            | 8.86  | 0.047            | 1.19 | CMG |
| <b>6036C</b> | 6     | 0.450            | 11.43 | 0.047            | 1.19 | CMG |
| <b>6039C</b> | 9     | 0.555            | 14.10 | 0.063            | 1.60 | CMG |
| <b>6042C</b> | 12    | 0.615            | 15.62 | 0.063            | 1.60 | CMG |

Characteristic impedance: 61 ohms  
 Mutual capacitance: 25 pF/ft (82 pF/m)  
 Ground capacitance: 45 pF/ft (147.6 pF/m)

#### 18 AWG (0.81 mm<sup>2</sup>)

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

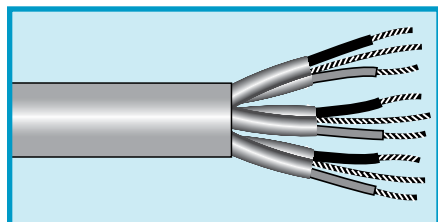
| Part No.     | Pairs | Nominal Diameter |       | Jacket Thickness |      | UL |
|--------------|-------|------------------|-------|------------------|------|----|
|              |       | Inch             | mm    | Inch             | mm   |    |
| <b>6023C</b> | 3     | 0.406            | 10.31 | 0.047            | 1.19 | CM |
| <b>6024C</b> | 6     | 0.561            | 14.25 | 0.063            | 1.60 | CM |
| <b>6025C</b> | 9     | 0.650            | 16.51 | 0.063            | 1.60 | CM |

Characteristic impedance: 59 ohms  
 Mutual capacitance: 26 pF/ft (85.3 pF/m)  
 Ground capacitance: 47 pF/ft (154.2 pF/m)



# Communication and Control

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



UL PLTC  
UL CM  
UL VW-1  
CSA CMG FT4

### Operating Temperature

- -20°C to +105°C (PLTC, CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Black and red pairs, numbered

### Materials

- Stranded tinned copper conductors
- PVC insulation
- Individual aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward
- Stranded tinned copper drain wire
- Slate PVC jacket

### Availability

500 ft (152 m)  
1000 ft (305 m)

### 22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.013 (0.33 mm)  
24 AWG (0.23 mm²) drain wire

| Part No. | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|----------|-------|------------------|-------|------------------|------|
|          |       | Inch             | mm    | Inch             | mm   |
| 6434     | 2     | 0.295            | 7.49  | 0.043            | 1.09 |
| 6435     | 3     | 0.311            | 7.89  | 0.043            | 1.09 |
| 6436     | 4     | 0.338            | 8.58  | 0.043            | 1.35 |
| 6437     | 6     | 0.420            | 10.66 | 0.053            | 1.35 |
| 6438     | 9     | 0.484            | 12.29 | 0.053            | 1.35 |
| 6439     | 11    | 0.537            | 13.63 | 0.053            | 1.35 |
| 6440     | 19    | 0.646            | 16.40 | 0.063            | 1.60 |
| 6441     | 51    | 1.020            | 25.90 | 0.075            | 1.91 |

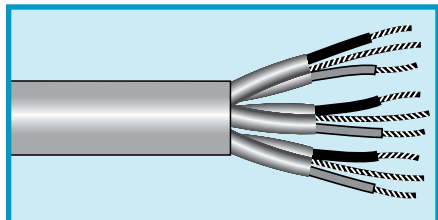
### 18 AWG (0.96 mm²)

Stranding: 19/30 (19 x 0.25 mm)  
Insulation thickness: 0.016 (0.41 mm)  
20 AWG (0.56 mm²) drain wire

| Part No. | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|----------|-------|------------------|-------|------------------|------|
|          |       | Inch             | mm    | Inch             | mm   |
| 6442     | 2     | 0.406            | 10.31 | 0.053            | 1.35 |
| 6443     | 3     | 0.429            | 10.90 | 0.053            | 1.35 |
| 6444     | 4     | 0.468            | 11.89 | 0.053            | 1.35 |
| 6445     | 6     | 0.557            | 14.15 | 0.053            | 1.35 |
| 6446     | 9     | 0.669            | 16.99 | 0.063            | 1.60 |
| 6447     | 11    | 0.746            | 18.95 | 0.063            | 1.60 |
| 6448     | 15    | 0.829            | 21.06 | 0.063            | 1.60 |

## Communication and Control

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



### Operating Temperature

- -20°C to +80°C

### Conductor Color Coding

- Chart A (page 528)

### Materials

- Stranded tinned copper conductors
- Polypropylene insulation
- Individual aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward
- Stranded tinned copper drain wire, 22 AWG (0.35 mm²), 7/30 (7 x 0.25 mm)
- Black polyethylene jacket

### Availability

1000 ft (305 m)  
500 ft (152 m)

#### 20 AWG (0.51 mm²)

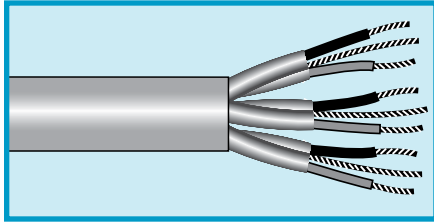
Stranding: 10/30 (10 x 0.25 mm)  
Insulation thickness: 0.008 (0.20 mm)

| Part No.    | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|-------------|-------|------------------|------|------------------|------|
|             |       | Inch             | mm   | Inch             | mm   |
| <b>6314</b> | 3     | 0.291            | 7.39 | 0.040            | 1.02 |
| <b>6315</b> | 6     | 0.385            | 9.78 | 0.045            | 1.14 |

Characteristic impedance: 48 ohms  
Mutual capacitance: 31 pF/ft (101.7 pF/m)  
Ground capacitance: 56 pF/ft (183.7 pF/m)

# Communication and Control

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



**UL AWM 2919 (30 V) VW-1**  
**UL CM**  
**CSA CMG FT4**

### Operating Temperature

- -20°C to +80°C (AWM)
- -20°C to +75°C (CM)
- -20°C to +60°C (CMG)

### Conductor Color Coding

- Chart A (page 528)

### Materials

- Stranded tinned copper conductors
- Polyethylene insulation
- Individual 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)

### 24 AWG (0.22 mm²)

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

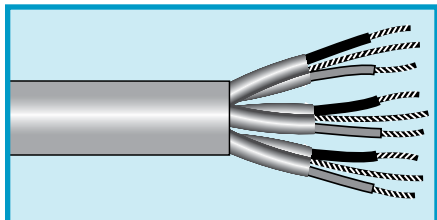
| Part No.    | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-------------|-------|------------------|-------|------------------|------|
|             |       | Inch             | mm    | Inch             | mm   |
| <b>6385</b> | 3     | 0.247            | 6.27  | 0.035            | 0.89 |
| <b>6386</b> | 6     | 0.317            | 8.05  | 0.035            | 0.89 |
| <b>6387</b> | 9     | 0.368            | 9.35  | 0.035            | 0.89 |
| <b>6388</b> | 12    | 0.411            | 10.44 | 0.035            | 0.89 |
| <b>6389</b> | 25    | 0.599            | 15.21 | 0.047            | 1.19 |

Characteristic impedance: 60 ohms  
 Mutual capacitance: 25 pF/ft (82 pF/m)  
 Ground capacitance: 47 pF/ft (154.2 pF/m)



# Communication and Control

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



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

### Operating Temperature

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

### Conductor Color Coding

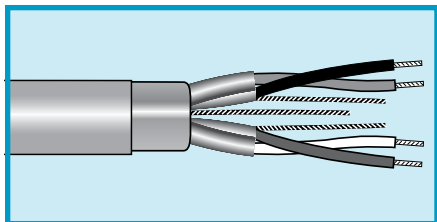
- See tables

### Materials

- Stranded tinned copper conductors
- Polypropylene insulation
- Individual aluminum/polyester foil shield, 25% overlap min.  
Stranded tinned copper drain wire (see tables for sizes)
- Slate PVC jacket

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)



### Individually Shielded Pairs

#### 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.010 (0.25 mm)  
24 AWG (0.22 mm<sup>2</sup>) drain wire  
Foil facing outward

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>2466C</b> | 2     | 0.170            | 4.32 | 0.020            | 0.51 |

Characteristic impedance: 60 ohms  
Mutual capacitance: 25 pF/ft (82 pF/m)  
Ground capacitance: 45 pF/ft (147.6 pF/m)

Color code: 1 Red-Black, 2 Green-White.

### Individually Shielded Pairs, UL CM

#### 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.008 (0.20 mm)  
24 AWG (0.22 mm<sup>2</sup>) drain wire  
Foil facing outward

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>2463C</b> | 4     | 0.230            | 5.84 | 0.020            | 0.51 |

Characteristic impedance: 53 ohms  
Mutual capacitance: 29 pF/ft (95.1 pF/m)  
Ground capacitance: 52 pF/ft (170.6 pF/m)

Color code: 1 Red-Black, 2 Green-White, 3 White/Red-White/Black, 4 White/Green-White/Yellow.

### Individually Shielded Pairs

#### 20 AWG (0.56 mm<sup>2</sup>)

Stranding: 7/28 (7 x 0.32 mm)  
Insulation thickness: 0.015 (0.38 mm)  
22 AWG (0.35 mm<sup>2</sup>) drain wire  
Foil facing inward

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>2467C</b> | 4     | 0.340            | 8.64 | 0.030            | 0.76 |

Characteristic impedance: 66 ohms  
Mutual capacitance: 23 pF/ft (75.5 pF/m)  
Ground capacitance: 41 pF/ft (134.5 pF/m)

Color code: 1 Red-Black, 2 Green-White, 3 White/Red-White/Black, 4 White/Green-White/Yellow.

### Individually Shielded Pairs +Overall Shield, AWM 2717

#### 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.009 (0.23 mm)  
22 AWG (0.35 mm<sup>2</sup>) drain wire  
Foil facing inward

| Part No.       | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|----------------|-------|------------------|------|------------------|------|
|                |       | Inch             | mm   | Inch             | mm   |
| <b>1243/2C</b> | 2     | 0.245            | 6.22 | 0.030            | 0.76 |

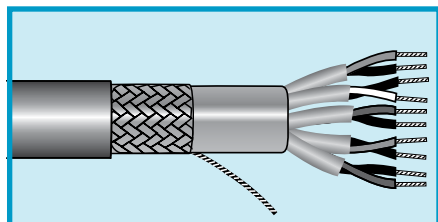
Characteristic impedance: 57 ohms  
Mutual capacitance: 27 pF/ft (88.6 pF/m)  
Ground capacitance: 49 pF/ft (160.7 pF/m)

Color code: 1 Red-Black, 2 Green-White.



## Communication and Control

300 V Individually Foil Shielded Pairs and Overall Foil/Braid, Multipair, FPE, PVC, Low Capacitance Data Cable



**UL AWM 2493 VW-1**

**UL CM**

**CSA CM FT1**

### Operating Temperature

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

### Conductor Color Coding

- Chart A (page 528)
- (See table at right for Part No. 6319 and 6322)

### Materials

- Stranded tinned copper conductors
- Foam polyethylene insulation
- Individual aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward  
Stranded tinned copper drain wire, 24 AWG (0.23 mm²), 7/32 (7 x 0.20 mm)
- Overall foil + braid shielding  
Aluminum/polyester foil, 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)

### 24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.019 (0.49 mm)

| Part No.     | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|--------------|-------|------------------|-------|------------------|------|
|              |       | Inch             | mm    | Inch             | mm   |
| <b>6316</b>  | 2     | 0.349            | 8.86  | 0.048            | 1.22 |
| <b>6317</b>  | 3     | 0.353            | 8.97  | 0.048            | 1.22 |
| <b>6318</b>  | 4     | 0.397            | 10.08 | 0.048            | 1.22 |
| <b>6319*</b> | 5     | 0.430            | 10.92 | 0.048            | 1.22 |
| <b>6320</b>  | 6     | 0.464            | 11.79 | 0.048            | 1.22 |
| <b>6321</b>  | 7     | 0.464            | 11.79 | 0.048            | 1.22 |
| <b>6322*</b> | 8     | 0.499            | 12.67 | 0.048            | 1.22 |
| <b>6323</b>  | 10    | 0.606            | 15.39 | 0.063            | 1.60 |
| <b>6324</b>  | 15    | 0.687            | 17.45 | 0.063            | 1.60 |
| <b>6325</b>  | 18    | 0.721            | 18.31 | 0.063            | 1.60 |
| <b>6326</b>  | 25    | 0.901            | 22.89 | 0.085            | 2.16 |

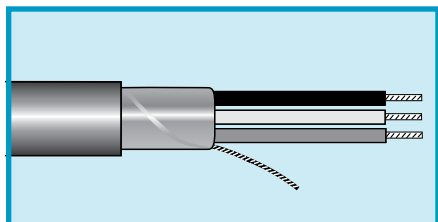
Characteristic impedance: 100 ohms  
Mutual capacitance: 12.5 pF/ft (41 pF/m)  
Ground capacitance: 22 pF/ft (72.2 pF/m)

### \*Color Code

| Pair No. | Color        | Pair No. | Color         |
|----------|--------------|----------|---------------|
| 1        | Black, Red   | 5        | Black, Yellow |
| 2        | Black, White | 6        | Black, Brown  |
| 3        | Black, Green | 7        | Black, Orange |
| 4        | Black, Blue  | 8        | Red, White    |

# Communication and Control

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



**UL CL2P**  
**UL CMP**  
**CSA CMP FT6**

## Operating Temperature

- -5°C to +75°C

## Conductor Color Coding

- Chart D2 (page 531)

## Materials

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

## Availability

500 ft (152 m)  
1000 ft (305 m)

### 24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.008 (0.020 mm)  
24 AWG (0.22 mm²) drain wire

| Part No.        | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|-----------------|------------|------------------|------|------------------|------|
|                 |            | Inch             | mm   | Inch             | mm   |
| <b>58401</b>    | 2          | 0.120            | 3.05 | 0.015            | 0.39 |
| <b>57003</b>    | 3          | 0.120            | 3.05 | 0.015            | 0.39 |
| <b>57004</b>    | 4          | 0.131            | 3.33 | 0.015            | 0.39 |
| <b>57006</b>    | 6          | 0.154            | 3.91 | 0.015            | 0.39 |
| <b>57008</b>    | 8          | 0.167            | 4.24 | 0.015            | 0.39 |
| <b>57010</b>    | 10         | 0.194            | 4.93 | 0.015            | 0.39 |
| <b>57015</b>    | 15         | 0.217            | 5.51 | 0.015            | 0.39 |
| <b>58110/25</b> | 25         | 0.262            | 6.65 | 0.015            | 0.39 |

### 22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.008 (0.020 mm)  
24 AWG (0.22 mm²) drain wire

| Part No.        | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|-----------------|------------|------------------|------|------------------|------|
|                 |            | Inch             | mm   | Inch             | mm   |
| <b>58411</b>    | 2          | 0.126            | 3.20 | 0.015            | 0.39 |
| <b>58113</b>    | 3          | 0.133            | 3.38 | 0.015            | 0.39 |
| <b>58114</b>    | 4          | 0.145            | 3.68 | 0.015            | 0.39 |
| <b>58116</b>    | 6          | 0.172            | 4.37 | 0.015            | 0.39 |
| <b>58117</b>    | 7          | 0.172            | 4.37 | 0.015            | 0.39 |
| <b>58118</b>    | 8          | 0.187            | 4.75 | 0.015            | 0.39 |
| <b>58119</b>    | 9          | 0.201            | 5.11 | 0.015            | 0.39 |
| <b>58120</b>    | 10         | 0.218            | 5.54 | 0.015            | 0.39 |
| <b>58120/12</b> | 12         | 0.225            | 5.72 | 0.015            | 0.39 |
| <b>58120/15</b> | 15         | 0.245            | 6.22 | 0.015            | 0.39 |
| <b>58120/25</b> | 25         | 0.314            | 7.98 | 0.017            | 0.43 |

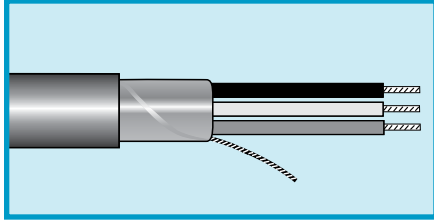
### 20 AWG (0.35 mm²)

Stranding: 7/0.0121 (7 x 0.31 mm)  
Insulation thickness: 0.008 (0.020 mm)  
22 AWG (0.35 mm²) drain wire

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|------------------|------|------------------|------|
|              |            | Inch             | mm   | Inch             | mm   |
| <b>58421</b> | 2          | 0.138            | 3.51 | 0.015            | 0.39 |
| <b>58124</b> | 4          | 0.160            | 4.06 | 0.015            | 0.39 |
| <b>58126</b> | 6          | 0.191            | 4.85 | 0.015            | 0.39 |

# Communication and Control

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



**UL CL2P**  
**UL CMP**  
**CSA CMP FT6**

## Operating Temperature

- -5°C to +75°C

## Conductor Color Coding

- Chart D2 (page 531)

## Materials

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

## Availability

500 ft (152 m)  
1000 ft (305 m)

### 18 AWG (0.82 mm<sup>2</sup>)

Stranding: 7/0.0152 (7 x 0.39 mm)  
Insulation thickness: 0.009 (0.023 mm)  
22 AWG (0.35 mm<sup>2</sup>) drain wire

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|------------------|------|------------------|------|
|              |            | Inch             | mm   | Inch             | mm   |
| <b>58431</b> | 2          | 0.162            | 4.11 | 0.015            | 0.39 |
| <b>58133</b> | 3          | 0.172            | 4.37 | 0.015            | 0.39 |
| <b>58134</b> | 4          | 0.189            | 4.80 | 0.015            | 0.39 |
| <b>58136</b> | 6          | 0.227            | 5.77 | 0.015            | 0.39 |

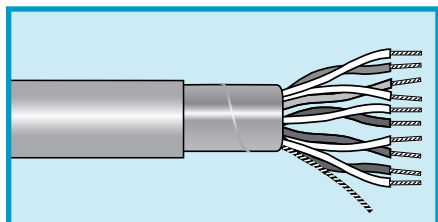
### 16 AWG (1.31 mm<sup>2</sup>)

Stranding: 7/0.0192 (7 x 0.49 mm)  
Insulation thickness: 0.009 (0.023 mm)  
18 AWG (0.82 mm<sup>2</sup>) drain wire

| Part No.     | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|--------------|------------|------------------|------|------------------|------|
|              |            | Inch             | mm   | Inch             | mm   |
| <b>58142</b> | 2          | 0.186            | 4.72 | 0.015            | 0.39 |
| <b>58144</b> | 4          | 0.218            | 5.54 | 0.015            | 0.39 |

# Communication and Control

300/150 V Foil Shield, Multipair, PVC, PVC  
Plenum Rated



**UL CL2P**  
**UL CMP**  
**CSA CMP FT6**

## Operating Temperature

- -5°C to +75°C

## Conductor Color Coding

- Chart A1 (page 528)

## Materials

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

## Availability

500 ft (152 m)  
1000 ft (305 m)

### 24 AWG (0.22 mm²)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.008 (0.020 mm)  
24 AWG (0.22 mm²) drain wire

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>57602</b> | 2     | 0.165            | 4.19 | 0.015            | 0.39 |
| <b>57603</b> | 3     | 0.175            | 4.45 | 0.015            | 0.39 |
| <b>57604</b> | 4     | 0.193            | 4.90 | 0.015            | 0.39 |
| <b>57605</b> | 5     | 0.212            | 5.38 | 0.015            | 0.39 |
| <b>57606</b> | 6     | 0.231            | 5.87 | 0.015            | 0.39 |

### 22 AWG (0.35 mm²)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.008 (0.020 mm)  
24 AWG (0.22 mm²) drain wire

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      |
|-----------------|-------|------------------|-------|------------------|------|
|                 |       | Inch             | mm    | Inch             | mm   |
| <b>58412</b>    | 2     | 0.185            | 4.70  | 0.015            | 0.39 |
| <b>58413</b>    | 3     | 0.197            | 5.00  | 0.015            | 0.39 |
| <b>58414</b>    | 4     | 0.217            | 5.51  | 0.015            | 0.39 |
| <b>58415</b>    | 5     | 0.239            | 6.07  | 0.015            | 0.39 |
| <b>58416</b>    | 6     | 0.261            | 6.63  | 0.015            | 0.39 |
| <b>57628</b>    | 8     | 0.285            | 7.24  | 0.015            | 0.39 |
| <b>58419</b>    | 9     | 0.311            | 7.90  | 0.016            | 0.41 |
| <b>58420/19</b> | 19    | 0.418            | 10.62 | 0.018            | 0.46 |

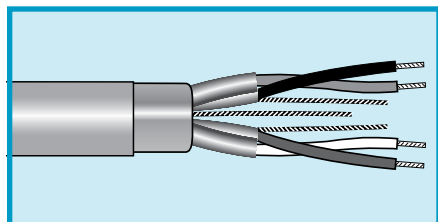
### 20 AWG (0.35 mm²)

Stranding: 7/0.0121 (7 x 0.31 mm)  
Insulation thickness: 0.008 (0.020 mm)  
22 AWG (0.35 mm²) drain wire

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>57632</b> | 2     | 0.205            | 5.21 | 0.015            | 0.39 |
| <b>57634</b> | 4     | 0.240            | 6.10 | 0.015            | 0.39 |
| <b>57636</b> | 6     | 0.291            | 7.39 | 0.015            | 0.39 |

# Communication and Control

150 V Foil Shield, Multipair, FEP, PVDF  
Plenum Rated, Low- and Mid-Capacitance



**UL CL2P**  
**UL CMP**  
**CSA CMP FT6**

## Operating Temperature

- -25°C to +125°C

## Conductor Color Coding

- Chart A1 (page 528)

## Materials

- Stranded tinned copper conductors
- FEP insulation
- Aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward
- Stranded tinned copper drain wire, 24 AWG (0.22 mm<sup>2</sup>), 7/32 (7 x 0.20 mm)
- Slate PVDF jacket

## Availability

500 ft (152 m)

1000 ft (305 m)\*

\*May contain multiple lengths

## Individually Shielded Pairs

### 24 AWG (0.22 mm<sup>2</sup>)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.007 (0.18 mm)

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>58602</b> | 2     | 0.164            | 4.17 | 0.009            | 0.23 |
| <b>58603</b> | 3     | 0.175            | 4.45 | 0.009            | 0.23 |
| <b>58604</b> | 4     | 0.194            | 4.93 | 0.009            | 0.23 |

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

## Overall Shield

### 24 AWG (0.22 mm<sup>2</sup>)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.007 (0.18 mm)

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>58802</b> | 2     | 0.154            | 3.91 | 0.011            | 0.28 |
| <b>58803</b> | 3     | 0.163            | 4.14 | 0.011            | 0.28 |
| <b>58804</b> | 4     | 0.180            | 4.57 | 0.011            | 0.28 |
| <b>58806</b> | 6     | 0.217            | 5.51 | 0.011            | 0.28 |
| <b>58809</b> | 9     | 0.256            | 6.50 | 0.011            | 0.28 |
| <b>58812</b> | 12.5  | 0.294            | 7.47 | 0.011            | 0.28 |

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

## Overall Shield

### 24 AWG (0.22 mm<sup>2</sup>)

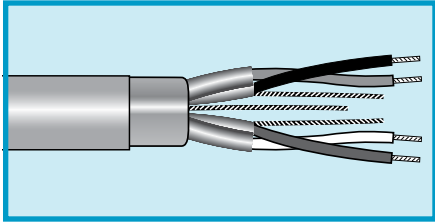
Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.012 (0.30 mm)

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>58902</b> | 2     | 0.186            | 4.72 | 0.011            | 0.28 |
| <b>58903</b> | 3     | 0.199            | 5.05 | 0.011            | 0.28 |
| <b>58904</b> | 4     | 0.219            | 5.56 | 0.011            | 0.28 |
| <b>58906</b> | 6     | 0.266            | 6.76 | 0.011            | 0.28 |
| <b>58909</b> | 9     | 0.315            | 8.00 | 0.011            | 0.28 |
| <b>58912</b> | 12.5  | 0.367            | 9.32 | 0.011            | 0.28 |

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

# Communication and Control

150 V Foil Shield, Multipair, FEP, PVDF  
Plenum Rated, Low- and Mid-Capacitance



**UL CL2P**  
**UL CMP**  
**CSA CMP FT6**

## Operating Temperature

- -55°C to +125°C

## Conductor Color Coding

- Chart A1 (page 528)

## Materials

- Stranded tinned copper conductors
- FEP insulation
- Aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward  
Stranded tinned copper drain wire, 24 AWG (0.22 mm<sup>2</sup>), 7/32 (7 x 0.20 mm)
- Slate PVDF jacket

## Availability

500 ft (152 m)  
1000 ft (305 m)\*

\*May contain multiple lengths

## Overall Foil Shield, Individually Shielded Pairs

### 22 AWG (0.35 mm<sup>2</sup>)

Stranding: 7/30 (7 x 0.25 mm)  
Insulation thickness: 0.007 (0.18 mm)

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>58612</b> | 2     | 0.189            | 4.80 | 0.009            | 0.23 |
| <b>58613</b> | 3     | 0.202            | 5.13 | 0.009            | 0.23 |
| <b>58616</b> | 6     | 0.272            | 6.91 | 0.009            | 0.23 |

Mutual capacitance: 29 pF/ft (95.1 pF/m)  
Ground capacitance: 51 pF/ft (167.3 pF/m)

## Individually Shielded Pairs, Overall Shield

### 18 AWG (0.82 mm<sup>2</sup>)

Stranding: 7/0.0152 (7 x 0.39 mm)  
Insulation thickness: 0.007 (0.18 mm)

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>58632</b> | 2     | 0.247            | 6.27 | 0.010            | 0.25 |
| <b>58633</b> | 3     | 0.264            | 6.71 | 0.012            | 0.30 |

Mutual capacitance: 35 pF/ft (114.8 pF/m)  
Ground capacitance: 63 pF/ft (206.7 pF/m)

## Individually Shielded Pairs

### 16 AWG (0.35 mm<sup>2</sup>)

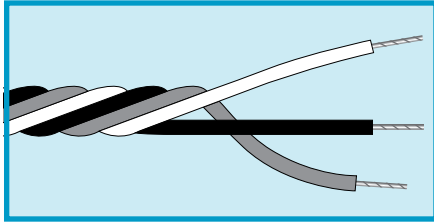
Stranding: 7/0.0192 (7 x 0.49 mm)  
Insulation thickness: 0.007 (0.18 mm)

| Part No.     | Pairs | Nominal Diameter |      | Jacket Thickness |      |
|--------------|-------|------------------|------|------------------|------|
|              |       | Inch             | mm   | Inch             | mm   |
| <b>58642</b> | 2     | 0.289            | 7.34 | 0.012            | 0.30 |
| <b>58643</b> | 3     | 0.309            | 7.85 | 0.012            | 0.30 |

Mutual capacitance: 39 pF/ft (128 pF/m)  
Ground capacitance: 69 pF/ft (226.4 pF/m)

## Communication and Control

### 200 V Unshielded and Shielded, Multiconductor PVC, PVC Hi-Fi and Stereo Cable



#### Operating Temperature

- -20°C to +80°C

#### Conductor Color Coding

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

#### Materials

- Stranded tinned copper conductors
- PVC insulation
- Conductors twisted in an extra tight lay

#### Availability

100 ft (30.5 m)  
1000 ft (305 m)

#### 32 AWG (0.03 mm<sup>2</sup>)

Stranding: 7/40 (7 x 0.08 mm)  
Insulation thickness: 0.010 (0.25 mm)

| Part No. | Conductors | Nominal Diameter |      |
|----------|------------|------------------|------|
|          |            | Inch             | mm   |
| 1101     | 3          | 0.063            | 1.60 |
| 1102     | 4          | 0.072            | 1.83 |

#### 30 AWG (0.05 mm<sup>2</sup>)

Stranding: 7/38 (7 x 0.10 mm)  
Insulation thickness: 0.010 (0.25 mm)

| Part No. | Conductors | Nominal Diameter |      |
|----------|------------|------------------|------|
|          |            | Inch             | mm   |
| 1115     | 2          | 0.064            | 1.63 |
| 1116     | 3          | 0.070            | 1.78 |

### Miniature Shielded Cable

#### Conductor Color Coding

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

#### Materials

- Stranded tinned copper conductors
- Color-coded PVC insulation
- Tinned copper braid shield, 80% coverage
- Clear PVC jacket

#### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

#### 28 AWG (0.09 mm<sup>2</sup>)

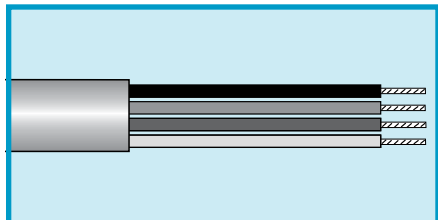
Stranding: 7/36 (7 x 0.13 mm)  
Insulation thickness: 0.010 (0.25 mm)

| Part No. | Conductors | Nominal Diameter |      | Jacket Thickness |      |
|----------|------------|------------------|------|------------------|------|
|          |            | Inch             | mm   | Inch             | mm   |
| 1120     | 2          | 0.115            | 2.92 | 0.010            | 0.25 |
| 1121     | 3          | 0.120            | 3.05 | 0.010            | 0.25 |
| 1122     | 4          | 0.130            | 3.30 | 0.010            | 0.25 |



# Communication and Control

## 150 V Unshielded Multiconductor PP, PVC Silver Satin Oval Telephone Cable



### Temperature Rating

- -20°C to +60°C

### Conductor Color Coding

- See table

### Materials

- Stranded bare copper conductors
- Polypropylene insulation
- Silver PVC jacket

### Availability

328 ft (100 m), box  
1000 ft (305 m), box

### 26 AWG (0.14 mm<sup>2</sup>)

Stranding: 7/34 (7 x 0.16 mm)  
Insulation thickness: 0.009 (0.23 mm)

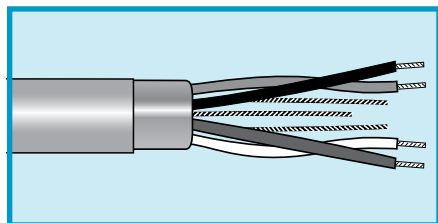
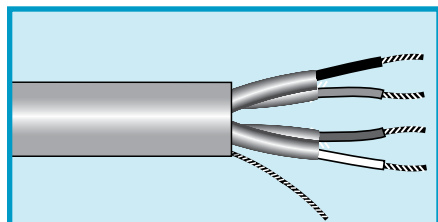
| Part No.    | Conductors | Nominal Outer Dimension |             | Jacket Thickness |      |
|-------------|------------|-------------------------|-------------|------------------|------|
|             |            | Inch                    | mm          | Inch             | mm   |
| <b>1604</b> | 4          | 0.090 x 0.190           | 2.28 x 4.83 | 0.020            | 0.51 |
| <b>1606</b> | 6          | 0.090 x 0.270           | 2.28 x 6.85 | 0.024            | 0.61 |
| <b>1608</b> | 8          | 0.090 x 0.350           | 2.28 x 8.89 | 0.024            | 0.61 |

### Conductor Color Coding

| Conductor No. | 1604   | 1606   | 1608   |
|---------------|--------|--------|--------|
| 1             | Black  | White  | Slate  |
| 2             | Red    | Black  | Orange |
| 3             | Green  | Red    | Black  |
| 4             | Yellow | Green  | Red    |
| 5             |        | Yellow | Green  |
| 6             |        | Blue   | Yellow |
| 7             |        |        | Blue   |
| 8             |        |        | Brown  |

## Communication and Control

300 V Individually Foil Shielded Pairs or Overall Foil Shielded, Multipair, FPP, PVC



**UL AWM 2490, 2493, 2668  
VW-1  
UL CM  
CSA CMG FT4**

### Operating Temperature

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

### Conductor Color Coding

- Chart K (page 529)

### Materials

- Solid or stranded tinned copper conductors
- Foam polypropylene insulation
- Individual aluminum/polyester foil shield, 25% overlap min.  
Foil facing inward
- Stranded tinned copper drain wire, 24 AWG (0.23 mm<sup>2</sup>), 7/32 (7 x 0.20 mm)
- Slate PVC jacket (unless otherwise noted)

### Availability

100 ft (30.5 m)  
500 ft (152 m)  
1000 ft (305 m)

### Individually Foil Shielded Pairs

#### 24 AWG (0.23 mm<sup>2</sup>)

Stranding: 7/32 (7 x 0.20 mm)  
Insulation thickness: 0.023 (0.58)

| Part No.        | Pairs | Nominal Diameter |       | Jacket Thickness |      | AWM  |
|-----------------|-------|------------------|-------|------------------|------|------|
|                 |       | Inch             | mm    | Inch             | mm   |      |
| <b>6073C</b>    | 3     | 0.374            | 9.50  | 0.048            | 1.22 | 2493 |
| <b>6076C</b>    | 6     | 0.483            | 12.27 | 0.048            | 1.22 | 2493 |
| <b>6079C</b>    | 9     | 0.597            | 15.16 | 0.065            | 1.65 | 2493 |
| <b>6079/11C</b> | 11    | 0.643            | 16.33 | 0.065            | 1.65 | 2493 |
| <b>6079/12C</b> | 12    | 0.663            | 16.84 | 0.065            | 1.65 | 2493 |
| <b>6079/15C</b> | 15    | 0.719            | 18.26 | 0.065            | 1.65 | 2493 |
| <b>6079/27C</b> | 27    | 0.962            | 24.43 | 0.087            | 2.21 | 2490 |

Characteristic impedance: 115 ohms  
Mutual capacitance: 12 pF/ft (41 pF/m)

### Overall Foil Shield

#### 22 AWG (0.32 mm<sup>2</sup>)

Stranding: Solid  
Insulation thickness: 0.023 (0.58)

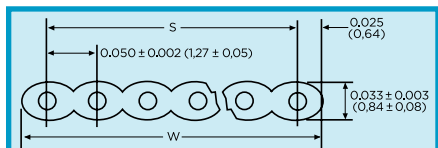
| Part No.      | Pairs | Nominal Diameter |      | Jacket Thickness |      | AWM  |
|---------------|-------|------------------|------|------------------|------|------|
|               |       | Inch             | mm   | Inch             | mm   |      |
| <b>6072C*</b> | 2     | 0.42             | 9.50 | 0.035            | 0.89 | 2668 |

Characteristic impedance: 150 ohms  
Mutual capacitance: 8.8 pF/ft (28.9 pF/m)

\*Black jacket.

# Communication and Control

## 300 V Unshielded, Flat Cable, 0.050 (1.27 mm) Centerline



### UL AWM 2651, 20932 VW-1

#### Operating Temperature

- 20°C to +105°C

#### Materials

- Stranded tinned copper conductors
- Extruded PVC insulation (slate cable)
- Thermally bonded PVC with clear PVC covering (color-coded cable)

#### Color

- AWM 2651: slate cable, with red polarity stripe on leading edge
- AWM 20932: color-coded cable: brown, red, orange, yellow, green, blue, violet, slate, white, black . . . repeats

#### Electrical Characteristics

- Capacitance: 14 pF/ft (45.9 pF/m) nom. at 1 MHz
- Propagation delay: 1.4 ns/ft (4.6 ns/m) @ 0.18 ns risetime
- Impedance: 105 ohms (G-S-G configuration)
- Near-end crosstalk: 3.2%
- Far-end crosstalk: 11.5%
- Crosstalk measured on adjacent lines, 1 ns risetime, 10 ft (3.05 m) length

#### Availability

100 ft (30.5 m)

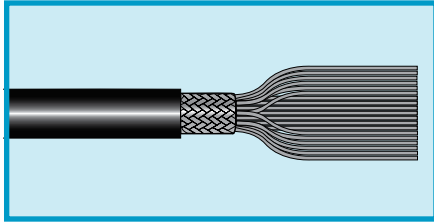
May contain multiple lengths

| 28 AWG (0.09 mm <sup>2</sup> )                                         |                            |            |           |       |          |       |
|------------------------------------------------------------------------|----------------------------|------------|-----------|-------|----------|-------|
| Stranding: 7/36 (7 x 0.13 mm)<br>Insulation thickness: 0.010 (0.25 mm) |                            |            |           |       |          |       |
| Part No.<br>Slate<br>(AWM 2651)                                        | Color Coded<br>(AWM 20932) | Conductors | Width (W) |       | Span (S) |       |
|                                                                        |                            |            | Inch      | mm    | Inch     | mm    |
| <b>3580/9</b>                                                          | <b>3583/9</b>              | 9          | 0.45      | 11.43 | 0.40     | 10.16 |
| <b>3580/10</b>                                                         | <b>3583/10</b>             | 10         | 0.50      | 12.70 | 0.45     | 11.43 |
| <b>3580/14</b>                                                         | <b>3583/14</b>             | 14         | 0.70      | 17.78 | 0.65     | 16.51 |
| <b>3580/15</b>                                                         | <b>3583/15</b>             | 15         | 0.75      | 19.05 | 0.70     | 17.78 |
| <b>3580/16</b>                                                         | <b>3583/16</b>             | 16         | 0.80      | 20.32 | 0.75     | 19.05 |
| <b>3580/20</b>                                                         | <b>3583/20</b>             | 20         | 1.00      | 25.40 | 0.95     | 24.13 |
| <b>3580/24</b>                                                         | <b>3583/24</b>             | 24         | 1.20      | 30.48 | 1.15     | 29.21 |
| <b>3580/25</b>                                                         | <b>3583/25</b>             | 25         | 1.25      | 31.75 | 1.20     | 30.48 |
| <b>3580/26</b>                                                         | <b>3583/26</b>             | 26         | 1.30      | 33.02 | 1.25     | 31.75 |
| <b>3580/34</b>                                                         | <b>3583/34</b>             | 34         | 1.70      | 43.18 | 1.65     | 41.91 |
| <b>3580/37</b>                                                         | <b>3583/37</b>             | 37         | 1.85      | 46.99 | 1.80     | 45.72 |
| <b>3580/40</b>                                                         | <b>3583/40</b>             | 40         | 2.00      | 50.80 | 1.95     | 49.53 |
| <b>3580/50</b>                                                         | <b>3583/50</b>             | 50         | 2.50      | 63.50 | 2.45     | 62.23 |
| <b>3580/60</b>                                                         | <b>3583/60</b>             | 60         | 3.00      | 76.20 | 2.95     | 74.93 |
| <b>3580/64</b>                                                         | <b>3583/64</b>             | 64         | 3.20      | 81.28 | 3.15     | 80.01 |



## Communication and Control

300 V Foil + Braid Shield, Round to Flat  
Flat Cable, 0.050 (1.27 mm) Centerline



**UL AWM 20381 (300 V)**  
**UL CL2 (150 V)**

### Operating Temperature

- -20°C to +105°C

### Materials

- Stranded tinned copper conductors
- PVC insulation
- Foil + braid shield  
Aluminum/polyester  
Tinned copper braid  
(90% coverage)
- Black PVC jacket, 0.030  
(0.08 mm) thick

### Configuration

- Flat cable termination area is 0.75 (19 mm) long and occurs every 1.5 (38 mm)

### Electrical Characteristics

- Capacitance: 24 pF/ft (78.7 pF/m) nom at 1 MHz
- Impedance: 70 ohms

### Availability

100 ft (30.5 m)

May contain multiple lengths

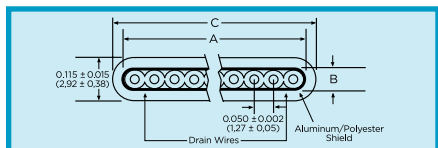
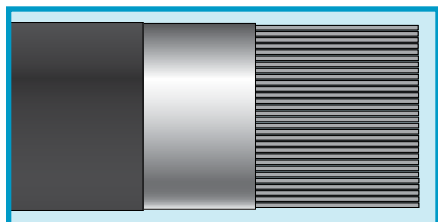
#### 28 AWG (0.09 mm²)

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

| Part No.       | Conductors | Nominal Diameter |       | Nominal Width |       |
|----------------|------------|------------------|-------|---------------|-------|
|                |            | Inch             | mm    | Inch          | mm    |
| <b>3585/25</b> | 25         | 0.34             | 8.64  | 1.20          | 30.48 |
| <b>3585/26</b> | 26         | 0.35             | 8.89  | 1.65          | 41.91 |
| <b>3585/40</b> | 40         | 0.40             | 10.20 | 1.95          | 49.53 |
| <b>3585/50</b> | 50         | 0.46             | 11.70 | 2.45          | 62.23 |

# Communication and Control

150 V, Jacketed, Foil Shield, Flat Cable, 0.050 (1.27 mm) Centerline



## 28 AWG (0.09 mm<sup>2</sup>)

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

| Part No.       | Conductors | Nom. Core Width (A) |       | Nom. Jacket Width (C) |       |
|----------------|------------|---------------------|-------|-----------------------|-------|
|                |            | Inch                | mm    | Inch                  | mm    |
| <b>3590/10</b> | 10         | 0.50                | 12.70 | 0.57                  | 14.48 |
| <b>3590/14</b> | 14         | 0.70                | 17.78 | 0.77                  | 19.56 |
| <b>3590/16</b> | 16         | 0.80                | 20.32 | 0.87                  | 22.10 |
| <b>3590/26</b> | 26         | 1.30                | 33.02 | 1.37                  | 34.80 |

**UL AWM 2912**

**UL Type CL2**

### Operating Temperature

- -20°C to +105°C

### Materials

- Stranded tinned copper conductors
- Extruded slate PVC insulation with red polarity stripe
- Aluminum/polyester/aluminum foil shield
- Two 28 AWG (0.09 mm<sup>2</sup>) stranded tinned copper drain wires
- Slate PVC jacket, 0.030 (0.08 mm) thick

### Electrical Characteristics

- Capacitance: 20 pF/ft (65.6 pF/m) nom. at 1 MHz
- Propagation delay: 1.45 ns/ft (4.8 ns/m) at 0.18 ns risetime
- Impedance: 70 ohms
- Near-end crosstalk: 5.5%
- Far-end crosstalk: 1.6%
- Crosstalk measured on adjacent lines, 3.5 ns risetime

### Availability

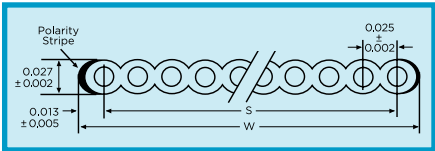
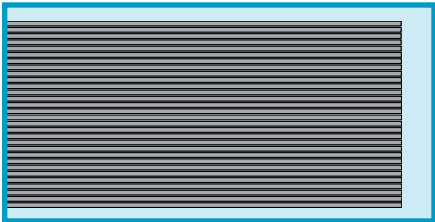
100 ft (30.5 m)

May contain multiple lengths



# Communication and Control

150 V Unshielded, Flat Cable, 0.025 (0.64 mm) Centerline



| 30 AWG (0.05 mm²)                     |            |           |       |          |       |
|---------------------------------------|------------|-----------|-------|----------|-------|
| Stranding: Solid                      |            |           |       |          |       |
| Insulation thickness: 0.013 (0.33 mm) |            |           |       |          |       |
| Part No.                              | Conductors | Width (W) |       | Span (S) |       |
|                                       |            | Inch      | mm    | Inch     | mm    |
| 3582/26                               | 26         | 0.65      | 16.51 | 0.625    | 15.88 |
| 3582/40                               | 40         | 1.00      | 25.40 | 0.975    | 24.76 |
| 3582/50                               | 50         | 1.25      | 31.75 | 1.225    | 31.15 |
| 3582/60                               | 60         | 1.50      | 38.10 | 1.475    | 37.46 |

## UL AWM 2678 VW-1

### Operating Temperature

- 20°C to +105°C

### Color

- Slate, with red polarity stripe on leading edge

### Materials

- Solid bare copper conductors
- PVC insulation

### Electrical Characteristics

- Capacitance:  
24.9 pF/ft (82 pF/m) nom.  
(G-S-G) at 1 kHz  
14.3 pF/ft (47 pF/m) nom.  
(G-S) at 1 kHz
- Propagation delay: 1.52 ns/ft  
(4.9 ns/m)
- Impedance:  
78 ohms (G-S-G single-ended configuration)  
131 ohms nom. (G-S differential configuration)
- Skew: 0.036 ns/ft  
(0.12 ns/m) max

### Availability

100 ft (30.5 m)

May contain multiple lengths

