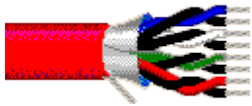


## 89504 Multi-Conductor - Computer Cable for EIA RS-232 Applications



### Description:

24 AWG stranded (7x32) tinned copper conductors, plenum, FEP insulation, twisted pair, overall Beldfoil shield (100% coverage), 24 AWG stranded TC drain wire, FEP jacket

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4       | 24  | 7x32      | TC - Tinned Copper |

#### Insulation

##### Insulation Material:

| Insulation Material                  | Wall Thickness (in.) |
|--------------------------------------|----------------------|
| FEP - Fluorinated Ethylene Propylene | .006                 |

#### Outer Shield

##### Outer Shield Material:

| Outer Shield Trade Name | Type | Outer Shield Material        | Coverage (%) |
|-------------------------|------|------------------------------|--------------|
| Beldfoil®               | Tape | Aluminum Foil-Polyester Tape | 100          |

##### Outer Shield Drain Wire AWG:

| AWG | Stranding | Drain Wire | Conductor Material |
|-----|-----------|------------|--------------------|
| 24  | 7x32      |            | TC - Tinned Copper |

#### Outer Jacket

##### Outer Jacket Material:

| Outer Jacket Material                | Nom. Wall Thickness (in.) |
|--------------------------------------|---------------------------|
| FEP - Fluorinated Ethylene Propylene | .014                      |

#### Overall Cabling

Overall Nominal Diameter: 0.192 in.

#### Pair

##### Pair Color Code Chart:

| Number | Color         |
|--------|---------------|
| 1      | Black & White |
| 2      | Black & Red   |
| 3      | Black & Green |
| 4      | Black & Blue  |

##### Pair Lay Length & Direction:

| Lay Length (in.) |
|------------------|
| 1.000            |

### Mechanical Characteristics (Overall)

Operating Temperature Range: -70°C To +200°C

Bulk Cable Weight: 26.300 lbs/1000 ft.

Max. Recommended Pulling Tension: 50 lbs.

Min. Bend Radius (Install)/Minor Axis: 1.900 in.

## 89504 Multi-Conductor - Computer Cable for EIA RS-232 Applications

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

|                                       |            |
|---------------------------------------|------------|
| NEC/(UL) Specification:               | CMP        |
| CEC/C(UL) Specification:              | CMP        |
| EU CE Mark:                           | Yes        |
| EU Directive 2000/53/EC (ELV):        | Yes        |
| EU Directive 2002/95/EC (RoHS):       | Yes        |
| EU RoHS Compliance Date (mm/dd/yyyy): | 04/01/2005 |
| EU Directive 2002/96/EC (WEEE):       | Yes        |
| EU Directive 2003/11/EC (BFR):        | Yes        |
| CA Prop 65 (CJ for Wire & Cable):     | Yes        |
| MII Order #39 (China RoHS):           | Yes        |

#### Flame Test

|                   |          |
|-------------------|----------|
| UL Flame Test:    | NFPA 262 |
| C(UL) Flame Test: | FT6      |

#### Plenum/Non-Plenum

|                    |      |
|--------------------|------|
| Plenum (Y/N):      | Yes  |
| Non-Plenum Number: | 9504 |

### Electrical Characteristics (Overall)

#### Nom. Inductance:

Inductance (µH/ft)

.17

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

21

#### Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

40

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

24.1

#### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

15.9

#### Max. Operating Voltage - UL:

Voltage

300 V RMS

#### Max. Recommended Current:

Current

1.5 Amps per conductor @ 25°C

### Put Ups and Colors:

| Item #        | Putup    | Ship Weight | Color | Notes | Item Desc           |
|---------------|----------|-------------|-------|-------|---------------------|
| 89504 0021000 | 1,000 FT | 29.000 LB   | RED   | C     | 4 PR #24 FS FEP FEP |
| 89504 002500  | 500 FT   | 13.000 LB   | RED   | C     | 4 PR #24 FS FEP FEP |

#### Notes:

C = CRATE REEL PUT-UP.

# Overall Beldfoil® Shield


## Computer Cables for EIA RS-232 Applications

### Plenum-Rated


| Description | Part No. | UL NEC/<br>C(UL) CEC<br>Type | No. of<br>Pairs | Color<br>Code | Standard Lengths |   | Standard<br>Unit Weight |    | Insulation<br>Thickness |    | Jacket<br>Thickness |    | Nominal<br>OD |    | Nominal Capacitance |               |                  |                |
|-------------|----------|------------------------------|-----------------|---------------|------------------|---|-------------------------|----|-------------------------|----|---------------------|----|---------------|----|---------------------|---------------|------------------|----------------|
|             |          |                              |                 |               | Ft.              | m | Lbs.                    | kg | Inch                    | mm | Inch                | mm | Inch          | mm | *<br>pF/<br>Ft.     | *<br>pF/<br>m | **<br>pF/<br>Ft. | **<br>pF/<br>m |

**24 AWG Stranded (7x32) TC Conductors • Twisted Pairs • Overall Beldfoil Shield (100% Coverage) • 24 AWG Stranded TC Drain Wire**

**Plenum • FEP Insulation • Natural Flamarrest® Jacket**

|   |          |              |                                |   |  |                   |                    |              |              |             |             |            |              |    |     |    |     |
|---|----------|--------------|--------------------------------|---|--|-------------------|--------------------|--------------|--------------|-------------|-------------|------------|--------------|----|-----|----|-----|
|  | 300V RMS | <b>82641</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 1 | See<br>Chart 3<br>(Tech Info<br>Section) | U-1000†<br>1000†  | U-304.8<br>304.8   | 9.0<br>8.0   | 4.1<br>3.6   | .006<br>.15 | .15<br>.014 | .36<br>.36 | .106<br>2.69 | 31 | 102 | 59 | 194 |
|   |          | <b>82502</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 2 | See<br>Chart 3<br>(Tech Info<br>Section) | U-500†<br>U-1000† | U-152.4<br>U-304.8 | 8.0<br>16.0  | 3.6<br>7.3   | .006<br>.15 | .15<br>.014 | .36<br>.36 | .162<br>4.11 | 25 | 82  | 45 | 148 |
|   |          | <b>82503</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 3 | See<br>Chart 3<br>(Tech Info<br>Section) | U-1000†<br>1000†  | U-304.8<br>304.8   | 19.0<br>18.0 | 8.6<br>8.2   | .006<br>.15 | .15<br>.014 | .36<br>.36 | .169<br>4.29 | 25 | 82  | 45 | 148 |
|   |          | <b>82504</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 4 | See<br>Chart 3<br>(Tech Info<br>Section) | U-1000†<br>1000†  | U-304.8<br>304.8   | 24.0<br>26.0 | 10.9<br>11.8 | .006<br>.15 | .15<br>.014 | .36<br>.36 | .193<br>4.90 | 25 | 82  | 45 | 148 |
|   |          | <b>82505</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 5 | See<br>Chart 3<br>(Tech Info<br>Section) | U-1000†<br>1000†  | U-304.8<br>304.8   | 29.0<br>31.0 | 13.2<br>14.0 | .006<br>.15 | .15<br>.015 | .38<br>.38 | .196<br>4.98 | 25 | 82  | 45 | 148 |
|   |          | <b>82506</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 6 | See<br>Chart 3<br>(Tech Info<br>Section) | U-500†<br>U-1000† | U-152.4<br>U-304.8 | 17.5<br>34.0 | 8.0<br>15.5  | .006<br>.15 | .15<br>.015 | .38<br>.38 | .209<br>5.31 | 25 | 82  | 45 | 148 |
|   |          | <b>82509</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 9 | See<br>Chart 3<br>(Tech Info<br>Section) | 1000†             | 304.8              | 49.0         | 22.3         | .006<br>.15 | .15<br>.015 | .38<br>.38 | .246<br>6.25 | 23 | 75  | 42 | 138 |

**Plenum • FEP Insulation • Red FEP Jacket**

|   |          |              |                                |   |  |                      |                        |                     |                   |             |             |            |              |    |     |    |     |
|---|----------|--------------|--------------------------------|---|--|----------------------|------------------------|---------------------|-------------------|-------------|-------------|------------|--------------|----|-----|----|-----|
|  | 300V RMS | <b>88641</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 1 | See<br>Chart 3<br>(Tech Info<br>Section) | 100<br>500†<br>1000† | 30.5<br>152.4<br>304.8 | 2.4<br>6.0<br>9.0   | 1.1<br>2.7<br>4.1 | .006<br>.15 | .15<br>.014 | .36<br>.36 | .106<br>2.69 | 31 | 102 | 59 | 194 |
|   |          | <b>89503</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 3 | See<br>Chart 3<br>(Tech Info<br>Section) | 100<br>500†<br>1000† | 30.5<br>152.4<br>304.8 | 4.0<br>10.5<br>21.0 | 1.8<br>4.8<br>9.5 | .006<br>.15 | .15<br>.014 | .36<br>.36 | .175<br>4.45 | 21 | 69  | 40 | 131 |
|   |          | <b>89504</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 4 | See<br>Chart 3<br>(Tech Info<br>Section) | 500†<br>1000†        | 152.4<br>304.8         | 13.0<br>29.0        | 6.0<br>13.1       | .006<br>.15 | .15<br>.014 | .36<br>.36 | .192<br>4.88 | 21 | 69  | 40 | 131 |
|   |          | <b>89505</b> | NEC:<br>CMP<br>CEC:<br>CMP FT6 | 5 | See<br>Chart 3<br>(Tech Info<br>Section) | 100<br>1000†         | 30.5<br>304.8          | 4.9<br>33.0         | 2.2<br>15.0       | .006<br>.15 | .15<br>.014 | .36<br>.36 | .197<br>5.00 | 21 | 69  | 40 | 131 |

TC = Tinned Copper

\* Capacitance between conductors.

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

† Spools and/or UnReel® cartons are one piece, but length may vary ±10% for spools and ±5% for UnReel from length shown.