

## Description:

22 AWG stranded (7x30) TC conductor, polyolefin insulation, individually shielded with bonded Beldfoil®, numbered/color-coded PVC jackets, jackets and shields are bonded so both strip simultaneously, overall black PVC jacket and nylon rip cord.

## Physical Characteristics (Overall)

### Conductor

#### AWG:

# Pairs	AWG	Stranding	Conductor Material	Dia. (in.)
8	22	7x30	TC - Tinned Copper	.030

### Insulation

#### Insulation Material:

Insulation Material	Dia. (in.)
PO - Polyolefin	.050

### Inner Shield

#### Inner Shield Material:

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

#### Inner Shield Drain Wire AWG:

AWG
22

Inner Shield Drain Wire Stranding: 7x30

Inner Shield Drain Wire Conductor Material: TC - Tinned Copper

### Inner Jacket

#### Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (in.)
PVC - Polyvinyl Chloride	.133

### 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
18	19x30	TC - Tinned Copper

### Outer Jacket

#### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Outer Jacket Ripcord: Yes

### Overall Cabling

#### Overall Cabling Color Code Chart:

Number	Color
1	Brown

2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Purple
8	Gray

**Overall Nominal Diameter:** 0.503 in.

**Pair**

**Pair Color Code Chart:**

Color
Red & Black

**Pair Lay Length & Direction:**

Lay Length (in.)	Twists/ft. (twist/ft)
1.500	8.000

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** -20°C To +60°C

**Bulk Cable Weight:** 140.300 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 243.100 lbs.

**Min. Bend Radius (Install)/Minor Axis:** 5 in.

### Applicable Specifications and Agency Compliance (Overall)

**Applicable Standards & Environmental Programs**

**NEC/(UL) Specification:** CMR

**CEC/C(UL) Specification:** CMG

**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):** 01/01/2004

**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:** UL1666 Riser

**CSA Flame Test:** FT4

**Plenum/Non-Plenum**

**Plenum (Y/N):** No

### Electrical Characteristics (Overall)

**Nom. Characteristic Impedance:**

Impedance (Ohm)
50

**Nom. Inductance:**

Inductance (µH/ft)
.18

**Nom. Capacitance Conductor to Conductor:**

Capacitance (pF/ft)
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31

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

Capacitance (pF/ft)  
56

**Nominal Velocity of Propagation:**

VP (%)  
66

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)  
14.8

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)  
11.8

Ind. Pair Nominal Shield DC Resistance @ 20 Deg. C: 14.100 Ohm/1000 ft

**Max. Operating Voltage - UL:**

Voltage  
300 V RMS

**Max. Recommended Current:**

Current  
1.45 Amps per conductor @ 25°C

## Notes (Overall)

**Notes:** Pair jackets and shields are bonded so both strip simultaneously with automatic stripping equipment. Beldfoil® provides high reliability with ease of termination.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1817R 0101000	1,000 FT	152.000 LB	BLACK	C	8 #22 FS PR PVC FS PVC
1817R 010500	500 FT	80.000 LB	BLACK	C	8 #22 FS PR PVC FS PVC

**Notes:**  
C = CRATE REEL PUT-UP.

# Analog Multi-Pair Snake Cable

## CMR Rated Cables

### Individually Shielded and Jacketed Twisted Pairs



#### Individually Shielded and Jacketed Pairs

NEC: CMR (CEC: CMG FT4)

#### Product Description

**22 AWG** stranded (7x30) tinned copper conductor. Polyolefin insulation. Twisted pairs individual bonded Beldfoil® shield and have numbered and color-coded PVC jackets (see Chart 7 in Technical Information Section for colors). Jackets and shields are bonded so both strip simultaneously. Overall Beldfoil shield plus overall Black PVC jacket and nylon rip cord.

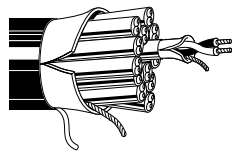
**Color Code:** Red, Black.

#### Specifications

<b>Nominal OD — Conductor</b>	.030" (.76mm)
<b>Nominal OD — Insulation</b>	.050" (1.27mm)
<b>Drain Wire</b>	
Individual Pairs	22 AWG
Overall: 1814R	22 AWG
Overall: 1815R – 1823R	18 AWG
<b>Inner Pair Jacket OD</b>	.133" (3.38mm)
<b>Approvals</b>	
NEC	CMR
CEC	CMG FT4
<b>Nominal DCR</b>	
Conductor	14.8Ω/M' (52.5Ω/km)
Shield (Inner Pair)	14.1Ω/M' (46.3Ω/km)
<b>Voltage Rating</b>	300V RMS
<b>Temperature Rating</b>	60°C
<b>Nominal Impedance</b>	50Ω
<b>Nominal Velocity of Propagation</b>	66%
<b>Nominal Capacitance</b>	
Between Conductors	31 pF/Ft. (102 pF/m)
Between Conductor/Shield*	56 pF/Ft. (184 pF/m)

DCR = DC Resistance

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



Part No.	No. of Pairs	Standard Lengths		Standard Unit Weight		Nominal OD	
		Ft.	m	Lbs.	kg	Inch	mm

#### CMR Rated Twisted Pairs NEC: CMR (CEC: CMG FT4)

22 AWG							
<b>1814R</b>	2	500 1000	152.4 304.8	30.0 59.0	13.6 26.8	.330	8.38
<b>1815R</b>	4	500 1000	152.4 304.8	45.0 91.0	20.4 41.3	.384	9.74
<b>1816R</b>	6	500 1000	152.4 304.8	65.0 131.0	29.5 59.6	.462	11.73
<b>1817R</b>	8	500 1000	152.4 304.8	80.0 152.0	36.3 68.9	.503	12.78
<b>1818R</b>	12	500 1000	152.4 304.8	121.0 241.0	54.9 109.3	.638	16.21
<b>1819R</b>	16	500 1000	152.4 304.8	180.0 364.0	81.6 165.0	.776	19.71
<b>1820R</b>	20	500 1000	152.4 304.8	216.0 442.0	98.0 200.1	.865	21.97
<b>1821R</b>	24	500 1000	152.4 304.8	263.5 518.0	119.5 235.0	.969	24.61
<b>1822R</b>	26	500 1000	152.4 304.8	280.5 552.0	127.2 250.4	.989	25.12
<b>1823R</b>	32	500 1000	152.4 304.8	335.5 692.0	152.2 313.9	1.072	27.23

Length may vary -10% to +0% from length shown.