

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.)
24	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
9	White
10	Black
11	Tan
12	Pink
13	Gray/Brown Stripe
14	Gray/Red Stripe
15	Gray/Orange Stripe
16	Gray/Yellow Stripe
17	Gray/Green Stripe
18	Gray/Blue Stripe
19	Gray/Purple Stripe
20	Gray/Gray Stripe
21	Gray/White Stripe
22	Gray/Black Stripe
23	Gray/Tan Stripe
24	Gray/Pink Stripe

Overall Nominal Diameter: 0.969 in.

Pair

Pair Color Code Chart:

Color
Red and 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:	409.100 lbs/1000 ft.
Max. Recommended Pulling Tension:	679.900 lbs.
Min. Bend Radius (Install)/Minor Axis:	9 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

1821R Multi-Conductor - CMR Rated Cable

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)
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
1821R 0101000	1,000 FT	518.000 LB	BLACK	C	24 #22 FS PR PVC FS PVC
1821R 010500	500 FT	263.500 LB	BLACK	C	24 #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.

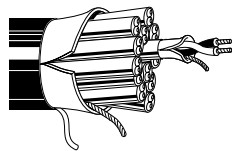
Color Code: Red, Black.

Specifications

Nominal OD — Conductor	.030" (.76mm)
Nominal OD — Insulation	.050" (1.27mm)
Drain Wire	
Individual Pairs	22 AWG
Overall: 1814R	22 AWG
Overall: 1815R – 1823R	18 AWG
Inner Pair Jacket OD	.133" (3.38mm)
Approvals	
NEC	CMR
CEC	CMG FT4
Nominal DCR	
Conductor	14.8Ω/M' (52.5Ω/km)
Shield (Inner Pair)	14.1Ω/M' (46.3Ω/km)
Voltage Rating	300V RMS
Temperature Rating	60°C
Nominal Impedance	50Ω
Nominal Velocity of Propagation	66%
Nominal Capacitance	
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							
1814R	2	500 1000	152.4 304.8	30.0 59.0	13.6 26.8	.330	8.38
1815R	4	500 1000	152.4 304.8	45.0 91.0	20.4 41.3	.384	9.74
1816R	6	500 1000	152.4 304.8	65.0 131.0	29.5 59.6	.462	11.73
1817R	8	500 1000	152.4 304.8	80.0 152.0	36.3 68.9	.503	12.78
1818R	12	500 1000	152.4 304.8	121.0 241.0	54.9 109.3	.638	16.21
1819R	16	500 1000	152.4 304.8	180.0 364.0	81.6 165.0	.776	19.71
1820R	20	500 1000	152.4 304.8	216.0 442.0	98.0 200.1	.865	21.97
1821R	24	500 1000	152.4 304.8	263.5 518.0	119.5 235.0	.969	24.61
1822R	26	500 1000	152.4 304.8	280.5 552.0	127.2 250.4	.989	25.12
1823R	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.