

83504 Multi-Conductor - Audio, Control and Instrumentation Cable



Description:

24 AWG stranded (7x32) TC conductors, conductors cabled, plenum, FEP insulation, overall Beldfoil® (100% coverage), TC braid shield (85% coverage), FEP jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	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:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	85

Outer Jacket

Outer Jacket Material:

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

Overall Cabling

Overall Cabling Lay Length & Direction:

Length (in.)
2.00

Overall Cabling Color Code Chart:

Number	Color
1	Black
2	White
3	Red
4	Green

Overall Nominal Diameter: 0.144 in.

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 20.600 lbs/1000 ft.

Max. Recommended Pulling Tension: 24 lbs.

Min. Bend Radius (Install)/Minor Axis: 1.800 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMP

83504 Multi-Conductor - Audio, Control and Instrumentation Cable

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
---------------	-----

Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
20

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
36

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
24.0

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
6.7

Max. Operating Voltage - UL:

Voltage
300 V RMS

Max. Recommended Current:

Current
1.6 Amps per conductor @ 25°C

Notes (Overall)

Notes: Plenum Cables, except for Flamarrest® jacket, are suitable for Outdoor and Direct Burial application.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
83504 002100	100 FT	3.500 LB	RED	C	4#24 FEP SH FEP
83504 0021000	1,000 FT	20.000 LB	RED	C	4#24 FEP SH FEP
83504 002500	500 FT	10.000 LB	RED	C	4#24 FEP SH FEP

Notes:
C = CRATE REEL PUT-UP.


Plenum-Rated

Overall Foil/Braid Shield

Audio, Control and Instrumentation Cables


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

24 AWG Stranded (7x32) TC Conductors • Conductors Cabled • Overall Beldfoil® (100% Coverage) + TC Braid Shield (85% Coverage)

Plenum • FEP Insulation • Red FEP Jacket																			
	300V RMS	83503	NEC: CMP CEC: CMP FT6	3	See Chart 2 (Tech Info Section)	500 [†] 1000 [†]	152.4 304.8	9.5 16.0	4.3 7.3	.006	.15	.014	.36	.135	3.43	20	66	36	118
		83504	NEC: CMP CEC: CMP FT6	4	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	3.5 10.0 20.0	1.6 4.6 9.1	.006	.15	.014	.36	.144	3.66	20	66	36	118
		83506	NEC: CMP CEC: CMP FT6	6	See Chart 2 (Tech Info Section)	500 [†] 1000 [†]	152.4 304.8	13.0 26.0	6.0 11.9	.006	.15	.014	.36	.165	4.19	20	66	36	118
		83509	NEC: CMP CEC: CMP FT6	9	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	5.3 17.0 38.0	2.4 7.8 17.3	.006	.15	.014	.36	.188	4.78	20	66	36	118
		83512	NEC: CMP CEC: CMP FT6	12	See Chart 2 (Tech Info Section)	500 [†] 1000 [†]	152.4 304.8	21.0 45.0	9.6 20.4	.006	.15	.014	.36	.207	5.26	20	66	36	118
		83515	NEC: CMP CEC: CMP FT6	15	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	7.2 25.0 53.0	3.3 11.4 24.1	.006	.15	.014	.36	.227	5.77	20	66	36	118

Suitable for Outdoor and Direct Burial applications.

22 AWG Stranded (7x30) TC Conductors • Conductors Cabled • Overall Beldfoil (100% Coverage) + TC Braid Shield (85% Coverage)

Plenum • FEP Insulation • Red FEP Jacket																			
	300V RMS	83552	NEC: CMP CEC: CMP FT6	2	See Chart 2 (Tech Info Section)	500 [†] 1000 [†]	152.4 304.8	8.0 16.0	3.7 7.3	.006	.15	.014	.36	.141	3.58	23	75	40	131
		83553	NEC: CMP CEC: CMP FT6	3	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	3.5 11.5 20.0	1.6 5.2 9.1	.006	.15	.014	.36	.148	3.76	23	75	40	131
		83554	NEC: CMP CEC: CMP FT6	4	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	4.0 12.5 25.0	1.8 5.7 11.4	.006	.15	.014	.36	.159	4.04	23	75	40	131
		83556	NEC: CMP CEC: CMP FT6	6	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	5.2 16.5 36.0	2.4 7.5 16.3	.006	.15	.014	.36	.183	4.65	23	75	40	131
		83559	NEC: CMP CEC: CMP FT6	9	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	6.8 23.0 50.0	3.1 10.5 22.7	.006	.15	.014	.36	.209	5.31	23	75	40	131
		83562	NEC: CMP CEC: CMP FT6	12	See Chart 2 (Tech Info Section)	500 [†] 1000 [†]	152.4 304.8	28.5 60.0	13.0 27.2	.006	.15	.015	.38	.234	5.94	23	75	40	131
	83569	NEC: CMP CEC: CMP FT6	19	See Chart 2 (Tech Info Section)	100 500 [†] 1000 [†]	30.5 152.4 304.8	9.6 44.0 85.0	4.4 20.0 38.6	.006	.15	.015	.38	.269	6.83	23	75	40	131	

Suitable for Outdoor and Direct Burial applications.

* Capacitance between conductors. ** Capacitance between one conductor and other conductors connected to shield.
[†] Spools are one piece, but length may vary ±10% from length shown.

TC = Tinned Copper