

83393 Multi-Conductor - Control and Instrumentation Cable, 2 Conductors Cabled

**Description:**

20 AWG stranded (7x28) TC conductors, twisted pair, 20 AWG (7x28) stranded TC drain wire, FEP insulation, special Beldfoil® shield (100% coverage), silicone rubber jacket, noise reducing tape.

Physical Characteristics (Overall)**Conductor****AWG:**

# Conductors	AWG	Stranding	Conductor Material
2	20	7x28	TC - Tinned Copper

Insulation**Insulation Material:**

Insulation Material	Wall Thickness (in.)
FEP - Fluorinated Ethylene Propylene	.020

Outer Shield**Outer Shield Material:**

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
1		Tape	Noise Reducing Conductive Nylon	

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
20	7x28	TC - Tinned Copper

Outer Jacket**Outer Jacket Material:**

Outer Jacket Material	Nom. Wall Thickness (in.)
Silicone Rubber	.037

Overall Cabling**Overall Cabling Lay Length & Direction:**

Length (in.)	Twists (ft.)
1.62	7.4

Overall Cabling Color Code Chart:

Number	Color
1	Black
2	Red

Overall Nominal Diameter: 0.242 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -70°C To +150°C

Bulk Cable Weight: 34 lbs/1000 ft.

Max. Recommended Pulling Tension: 25.200 lbs.

Min. Bend Radius (Install)/Minor Axis: 2.500 in.

Applicable Specifications and Agency Compliance (Overall)**Applicable Standards & Environmental Programs**

83393 Multi-Conductor - Control and Instrumentation Cable, 2 Conductors Cabled

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: UL1685 UL Loading, VW-1

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Inductance:

Inductance (μH/ft)

.20

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

22

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

40

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

10.5

Max. Operating Voltage - UL:

Voltage	Description
2000 V DC	through jacket
350 V RMS	between conductors

Max. Recommended Current:

Current

3.8 Amps per conductor @ 25°C

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
83393 004500	500 FT	18.000 LB	YELLOW	C	1 PR #20 FEP FS SIL

Notes:

C = CRATE REEL PUT-UP.

High-Temperature

Overall Beldfoil® Shield

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

22 AWG Stranded (7x30) TC Conductors • Conductors Cabled • Special Beldfoil Shield (100% Coverage) • 22 AWG (7x30) Stranded TC Drain Wire

FEP Insulation • Red Silicone Rubber Jacket • Noise Reducing Tape

Jacket working voltage 2000V DC, shield to ground VW-1	83394	AWM 4516	2	Black, White	100 500 [†]	30.5 152.4	3.6 14.5	1.6 6.6	.015 500 [†]	.38 152.4	.030 13.0	.76 5.9	.199	5.05	22	72	40	131
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70°C (min.) to 150°C (max.) operating temperature.

Jacket working voltage 2000V DC, shield to ground VW-1	83395	AWM 4516	3	Black, Red, White	100 500 [†]	30.5 152.4	3.9 14.0	1.8 6.4	.015 500 [†]	.38 152.4	.031 14.0	.79 6.4	.208	5.28	22	72	40	131
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70°C (min.) to 150°C (max.) operating temperature.

	83396	AWM 4516	4	Black, White, Red, Green	100 500 [†]	30.5 152.4	3.9 16.0	1.8 7.3	.015 500 [†]	.38 152.4	.030 16.0	.76 7.3	.217	5.51	22	72	40	131
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20 AWG Stranded (7x28) TC Conductors • Twisted Pair • Special Beldfoil Shield (100% Coverage) • 20 AWG (7x28) Stranded TC Drain Wire

FEP Insulation • Yellow Silicone Rubber Jacket • Noise Reducing Tape

Jacket working voltage 2000V DC, shield to ground VW-1	83393	AWM 4516	2	Black, Red	100 ^{††} 500 [†]	30.5 152.4	4.2 18.5	1.9 8.4	.020 500 [†]	.51 152.4	.030 17.0	.76 7.8	.242	6.15	22	72	40	131
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70°C (min.) to 150°C (max.) operating temperature.

20 AWG Stranded (7x28) TC Conductors • Conductors Cabled • Overall Beldfoil Shield (100% Coverage) • Drain Wire

Tefzel® Insulation • Clear Tefzel Jacket

300V RMS 150°C VW-1	85230	—	2	Black, Red	500 [†] 1000 [†]	152.4 304.8	12.5 29.0	5.7 13.2	.015 1000 [†]	.38 304.8	.020 29.0	.51 13.2	.182	4.62	31	102	59	194
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300V RMS 150°C VW-1	85240	—	3	Black, Red, Green	100 1000 [†]	30.5 304.8	4.6 30.0	2.1 13.6	.015 1000 [†]	.38 304.8	.020 30.0	.51 13.6	.193	4.90	27	87	48	157
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16 AWG Stranded (19x29) TC Conductors • Conductors Cabled • Overall Beldfoil Shield (100% Coverage) • Drain Wire

Tefzel Insulation • Clear Tefzel Jacket

300V RMS 150°C VW-1	85231	—	2	Black, Red	100 500 [†] 1000 [†]	30.5 152.4 304.8	5.6 17.0 38.0	2.5 7.8 17.3	.020 500 [†] 1000 [†]	.51 152.4 304.8	.020 17.0 38.0	.51 7.8 17.3	.210	5.33	44	144	79	259
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300V RMS 150°C VW-1	85241	—	3	Black, Red, Green	500 [†] 1000 [†]	152.4 304.8	22.5 49.0	10.3 22.3	.020 500 [†] 1000 [†]	.51 152.4 304.8	.020 17.0 38.0	.51 7.8 17.3	.223	5.66	34	112	61	201
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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.

^{††}100 ft. put-up one piece, exact length.

Tefzel and Kapton are DuPont trademarks.