

## 82841 Multi-Conductor - Low Capacitance Computer and Computer P.O.S. Cable



### Description:

Low cap 24 AWG stranded (7x32) TC conductors, plenum, foam FEP insulation, twisted pairs, overall Beldfoil (100% coverage) + TC braid shield (90% coverage), 24 AWG stranded TC drain wire, Flammarrest® jacket.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Pairs	AWG	Stranding	Conductor Material
1	24	7x32	TC - Tinned Copper

#### Insulation

##### Insulation Material:

Insulation Trade Name	Insulation Material
Teflon®	FFEP - Foam Fluorinated Ethylene Propylene

#### 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	90

##### Outer Shield Drain Wire AWG:

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

#### Outer Jacket

##### Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flammarrest®	LS PVC - Low Smoke Polyvinyl Chloride

#### Overall Cabling

Overall Nominal Diameter: 0.204 in.

#### Pair

##### Pair Color Code Chart:

Number	Color
1	White/Blue & Blue/White

##### Pair Lay Length & Direction:

Lay Length (in.)	Twists/ft. (twist/ft)
2.000	6.000

### Mechanical Characteristics (Overall)

Operating Temperature Range:	0°C To +75°C
Bulk Cable Weight:	30 lbs/1000 ft.
Max. Recommended Pulling Tension:	45.700 lbs.
Min. Bend Radius (Install)/Minor Axis:	2 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
EU CE Mark:	Yes

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EU Directive 2002/95/EC (RoHS): No

### Flame Test

UL Flame Test: NFPA 262

C(UL) Flame Test: FT6

### Plenum/Non-Plenum

Plenum (Y/N): Yes

Non-Plenum Number: 9841

## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)  
120

### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)  
12

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

Capacitance (pF/ft)  
22

### Nominal Velocity of Propagation:

VP (%)  
76

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
24

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)  
3.1

### Max. Operating Voltage - UL:

Voltage  
300 V RMS

### Max. Recommended Current:

Current  
4 Amps per conductor @ 25°C

## Notes (Overall)

**Notes:** Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
82841 8771000	1,000 FT	26.000 LB	NATURAL	C	1 PR #24 FFEPR SH FLRST
82841 877500	500 FT	13.000 LB	NATURAL		1 PR #24 FFEPR SH FLRST

### Notes:

C = CRATE REEL PUT-UP.

# Plenum-Rated

Overall Foil/Braid Shield

Low-Capacitance Computer and Computer P.O.S. Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m

**Low Cap 24 AWG** Stranded (7x32) TC Conductors • Twisted Pairs • Overall Beldfoil® (100% Coverage) + TC Braid Shield (90% Cov.) • Drain Wire

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

	300V RMS	<b>82841</b>	NEC: CMP CEC: CMP FT6	1	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	13.0 26.0	6.0 11.8	24.0Ω/M' 78.7Ω/km	3.1Ω/M' 10.2Ω/km	.204 5.18	120	76%	12	39.4	22	72.2
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	300V RMS	<b>82842</b>	NEC: CMP CEC: CMP FT6	2	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	19.0 42.0	8.6 19.1	24.0Ω/M' 78.7Ω/km	2.4Ω/M' 7.9Ω/km	.273 6.93	120	76%	12	39.4	22	72.2
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**Plenum • Foam FEP Insulation • Red FEP Jacket**

	300V RMS	<b>89841</b>	NEC: CMP CEC: CMP FT6	1	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	13.5 27.0	6.1 12.3	24.0Ω/M' 78.7Ω/km	3.1Ω/M' 10.2Ω/km	.202 5.13	120	76%	12	39.4	22	72.2
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	300V RMS	<b>89842</b> <small>new</small>	NEC: CMP CEC: CMP FT6	2	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	25.5 49.0	11.6 22.2	24.0Ω/M' 78.7Ω/km	3.1Ω/M' 10.2Ω/km	.305 7.75	120	76%	12	39.4	22	72.2
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**22 AWG** Solid TC Conductors • Twisted Pairs • Overall Beldfoil (100% Coverage) + TC Braid Shield (90% Coverage) • 22 AWG TC Drain Wire

**Plenum • Solid FEP Insulation • Black FEP Jacket**

	300V RMS	<b>1269A</b>	NEC: MPP, CMP CEC: MPP, CMP FT6	2	Red & Blue, Black & Yellow	1000	304.8	48.0	21.8	16.5Ω/M' 54.1Ω/km	2.1Ω/M' 6.9Ω/km	.240 6.10	100	69.5%	15.5	50.9	27	88.6
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**22 AWG** Solid TC Conductors • Twisted Pairs • Overall Beldfoil (100% Coverage) + TC Braid Shield (55% Cov.) + Polyester Tape • 22 AWG Drain Wire

**Plenum • Solid FEP Insulation • Black FEP Jacket**

	300V RMS	<b>89855</b>	NEC: MPP, CMP CEC: MPP, CMP FT6	2	1 Pair: Red & Blue 1 Pair: Black & Yellow	500 1000	152.4 304.8	22.5 42.0	10.2 19.1	16.5Ω/M' 54.1Ω/km	4.9Ω/M' 16.1Ω/km	.272 6.91	100	69.5%	15.5	50.9	27	88.6
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**22 AWG** Solid BC Conductors • Twisted Pairs • Overall Beldfoil (100% Coverage) + TC Braid Shield (55% Coverage) • 22 AWG Solid TC Drain Wire

**Plenum • Solid FEP Insulation • Black FEP Jacket**

	300V RMS	<b>89696</b>	NEC: MPP, CMP CEC: MPP, CMP FT6	2	1 Pair: Blue & White with Blue Stripes 1 Pair: Orange & White with Orange Stripes	500 1000	152.4 304.8	25.0 46.0	11.4 20.9	16.5Ω/M' 54.1Ω/km	4.2Ω/M' 13.8Ω/km	.262 6.65	100	69.5%	15.5	50.9	27	88.6
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BC = Bare Copper • DCR = DC Resistance • TC = Tinned Copper

\*Capacitance between conductors.

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