



## Description:

24 AWG stranded (7x32) TC conductors, plenum, FEP insulation, twisted pair, overall Beldfoil shield (100% coverage), 24 AWG stranded TC drain wire, FEP jacket

## Physical Characteristics (Overall)

### Conductor

#### AWG:

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

### Insulation

#### Insulation Material:

Insulation Material	Wall Thickness (in.)
FEP - Fluorinated Ethylene Propylene	.006

### 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
24	7x32		TC - Tinned Copper

### Outer Jacket

#### Outer Jacket Material:

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

## Overall Cabling

Overall Nominal Diameter: 0.106 in.

## Pair

#### Pair Color Code Chart:

Number	Color
1	Black & Red

## Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 9.300 lbs/1000 ft.

Max. Recommended Pulling Tension: 16 lbs.

Min. Bend Radius (Install)/Minor Axis: 1.100 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMP

CEC/C(UL) Specification: CMP

EU CE Mark: Yes

## 88641 Multi-Conductor - Single-Pair Cable

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
MIL Order #39 (China RoHS):	Yes

### Flame Test

UL Flame Test:	NFPA 262
C(UL) Flame Test:	FT6

### Plenum/Non-Plenum

Plenum (Y/N):	Yes
Plenum Number:	82641
Non-Plenum Number:	8641

## Electrical Characteristics (Overall)

### Nom. Inductance:

Inductance (µH/ft)

.17

### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

31

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

Capacitance (pF/ft)

59

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

24.1

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

17

### Max. Operating Voltage - UL:

Voltage

300 V RMS

### Max. Recommended Current:

Current

2.2 Amps per conductor @ 25°C

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
88641 002100	100 FT	2.400 LB	RED		2#24 FEP FS FEP
88641 0021000	1,000 FT	9.000 LB	RED	C	2#24 FEP FS FEP
88641 002500	500 FT	6.000 LB	RED	C	2#24 FEP FS FEP

### Notes:

C = CRATE REEL PUT-UP.

# Overall Beldfoil® Shield


## Computer Cables for EIA RS-232 Applications

### Plenum-Rated


Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	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 • Twisted Pairs • Overall Beldfoil Shield (100% Coverage) • 24 AWG Stranded TC Drain Wire**

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

	300V RMS	<b>82641</b>	NEC: CMP CEC: CMP FT6	1	See Chart 3 (Tech Info Section)	U-1000† 1000†	U-304.8 304.8	9.0 8.0	4.1 3.6	.006 .15	.15 .014	.36 .36	.106 2.69	31	102	59	194
		<b>82502</b>	NEC: CMP CEC: CMP FT6	2	See Chart 3 (Tech Info Section)	U-500† U-1000†	U-152.4 U-304.8	8.0 16.0	3.6 7.3	.006 .15	.15 .014	.36 .36	.162 4.11	25	82	45	148
		<b>82503</b>	NEC: CMP CEC: CMP FT6	3	See Chart 3 (Tech Info Section)	U-1000† 1000†	U-304.8 304.8	19.0 18.0	8.6 8.2	.006 .15	.15 .014	.36 .36	.169 4.29	25	82	45	148
		<b>82504</b>	NEC: CMP CEC: CMP FT6	4	See Chart 3 (Tech Info Section)	U-1000† 1000†	U-304.8 304.8	24.0 26.0	10.9 11.8	.006 .15	.15 .014	.36 .36	.193 4.90	25	82	45	148
		<b>82505</b>	NEC: CMP CEC: CMP FT6	5	See Chart 3 (Tech Info Section)	U-1000† 1000†	U-304.8 304.8	29.0 31.0	13.2 14.0	.006 .15	.15 .015	.38 .38	.196 4.98	25	82	45	148
		<b>82506</b>	NEC: CMP CEC: CMP FT6	6	See Chart 3 (Tech Info Section)	U-500† U-1000†	U-152.4 U-304.8	17.5 34.0	8.0 15.5	.006 .15	.15 .015	.38 .38	.209 5.31	25	82	45	148
		<b>82509</b>	NEC: CMP CEC: CMP FT6	9	See Chart 3 (Tech Info Section)	1000†	304.8	49.0 22.3	.006 .15	.15 .015	.38 .38	.246 6.25	23	75	42	138	

**Plenum • FEP Insulation • Red FEP Jacket**

	300V RMS	<b>88641</b>	NEC: CMP CEC: CMP FT6	1	See Chart 3 (Tech Info Section)	100 500† 1000†	30.5 152.4 304.8	2.4 6.0 9.0	1.1 2.7 4.1	.006 .15	.15 .014	.36 .36	.106 2.69	31	102	59	194
		<b>89503</b>	NEC: CMP CEC: CMP FT6	3	See Chart 3 (Tech Info Section)	100 500† 1000†	30.5 152.4 304.8	4.0 10.5 21.0	1.8 4.8 9.5	.006 .15	.15 .014	.36 .36	.175 4.45	21	69	40	131
		<b>89504</b>	NEC: CMP CEC: CMP FT6	4	See Chart 3 (Tech Info Section)	500† 1000†	152.4 304.8	13.0 29.0	6.0 13.1	.006 .15	.15 .014	.36 .36	.192 4.88	21	69	40	131
		<b>89505</b>	NEC: CMP CEC: CMP FT6	5	See Chart 3 (Tech Info Section)	100 1000†	30.5 304.8	4.9 33.0	2.2 15.0	.006 .15	.15 .014	.36 .36	.197 5.00	21	69	40	131

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.