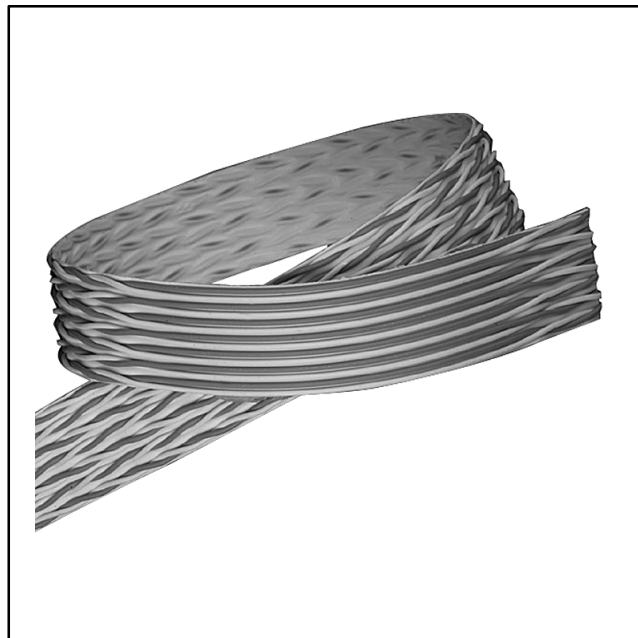


# 3M™ Twisted Pair Flat Cable

.050" 28 AWG Stranded, Mass Terminable, Halogen Free Polyolefin

2100 Series



- Advantage of this halogen free insulation are low smoke (BSS 7238) and low toxicity of combustion gases (NES 713) reducing the risk to firefighters and low corrosivity of combustion gases (pH $\approx$ 6.0) reducing damage to nearby equipment
- 28 AWG stranded conductors on .050 inch pitch permits mass terminations to a broad line of IDC connectors
- Please contact your 3M sales representative for variations not described in this specification
- RoHS\* compliant

Date Modified: March 11, 2004

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## Physical

### Insulation

Material: Halogen Free Polyolefin (PO)  
Color: Blue / Off-white Pairs

### Marking

Standard: None

**Conductors:** 28 AWG 7  $\times$  36 [ 7  $\times$  0.127 ] Tinned Stranded Copper

## Electrical

**Voltage Rating:** USA: 150V EU: <50V

**Insulation Resistance:**  $>1 \times 10^{10} \Omega / 10\text{ft}$  [3m]

	Unbalanced	Balanced
<b>Characteristic Impedance:</b>	102 $\Omega$	119 $\Omega$
<b>Capacitance:</b>	16.9 pF/ft (55.4 pF/m)	14.6 pF/ft (47.9 pF/m)
<b>Inductance:</b>	.18 $\mu\text{H}/\text{ft}$ (0.59 $\mu\text{H}/\text{m}$ )	.21 $\mu\text{H}/\text{ft}$ (0.69 $\mu\text{H}/\text{m}$ )
<b>Propagation Delay:</b>	1.74 ns/ft (5.71 ns/m)	1.73 ns/ft (5.68 ns/m)
<b>Velocity of Propagation:</b>	58%	59%

Note: Unbalanced is measured between ground-signal-ground conductors. Balanced is measured between conductors within a pair.

## Environmental

**Temperature Rating:** -40° C to +80° C

**Flammability Rating:** USA: UL VW-1 EU: IEC 332-1 & -3

\*RoHS=Directive 2002/95/IEC,  
Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

UL File No.: E42769, Style No: 21008

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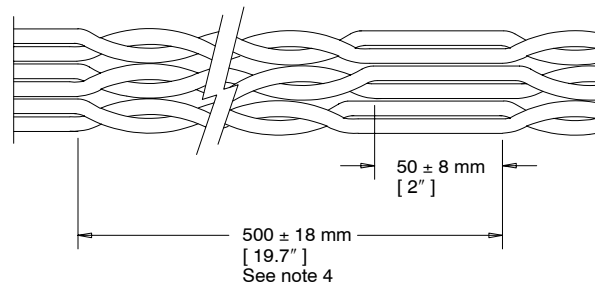
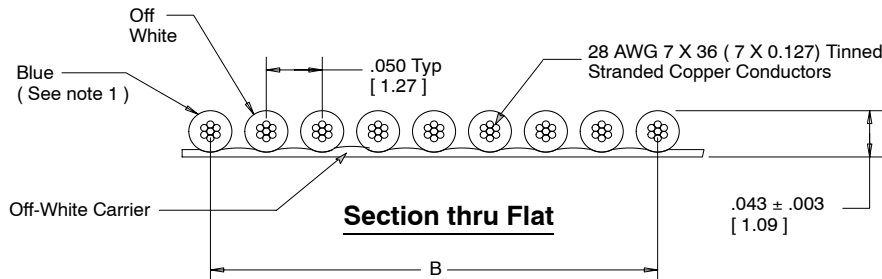
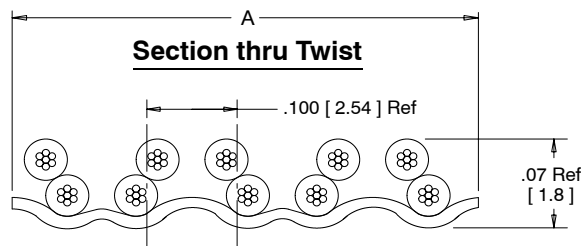
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**800-225-5373**

# 3M™ Twisted Pair Flat Cable

.050" 28 AWG Stranded, Mass Terminable, Halogen Free Polyolefin

2100 Series

Number of Conductors	3M Part Number	Dimension A (Reference)	Dimension B (See note 2)
10 (5 pair)	<b>2100/10TP</b>	0.50 [ 12.7 ]	0.450 ± .010 [ 11.43 ]
14 (7 pair)	<b>2100/14TP</b>	0.70 [ 17.8 ]	0.650 ± .010 [ 16.51 ]
16 (8 pair)	<b>2100/16TP</b>	0.80 [ 20.3 ]	0.750 ± .010 [ 19.05 ]
20 (10 pair)	<b>2100/20TP</b>	1.00 [ 25.4 ]	0.950 ± .010 [ 24.13 ]
24 (12 pair)	<b>2100/24TP</b>	1.20 [ 30.5 ]	1.150 ± .010 [ 29.21 ]
26 (13 pair)	<b>2100/26TP</b>	1.30 [ 33.0 ]	1.250 ± .010 [ 31.75 ]
34 (17 pair)	<b>2100/34TP</b>	1.70 [ 43.2 ]	1.650 ± .015 [ 41.91 ]
40 (20 pair)	<b>2100/40TP</b>	2.00 [ 50.8 ]	1.950 ± .015 [ 49.53 ]
50 (25 pair)	<b>2100/50TP</b>	2.50 [ 63.5 ]	2.450 ± .015 [ 62.23 ]
60 (30 pair)	<b>2100/60TP</b>	3.00 [ 76.2 ]	2.950 ± .015 [ 74.93 ]
64 (32 pair)	<b>2100/64TP</b>	3.20 [ 81.3 ]	3.150 ± .015 [ 80.01 ]



Inch  
[mm]

Tolerance Unless Noted			
	.0	.00	.000
Inch	±.1	±.01	±.005

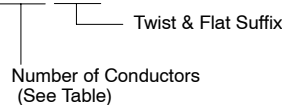
[ ] Dimensions for Reference only

Note:

1. Blue edge conductor designates wire one of pair one.
2. Dimension B pertains to bonded area only.

## Ordering Information

**2100/XX TP**



Notes:

3. Available in standard lengths of 30 m and 100 m per roll, please specify when ordering.
4. Standard product has a 50 mm flat on 500 mm repeat (2" bond on 19.7" repeat). For special requirements, please contact your 3M sales representative. The flat can be specified anything over 25 mm (1"), the repeat can be specified from 16.5 cm to 1.2 m (6.5" to 48").

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### **Important Notice**

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