

# 3M™ Round Conductor Flat Cable

.025" 30 AWG Solid, TPE

3749 Series



- Close spacing permits higher signal density
- TPE insulation provides excellent transmission properties
- 30 AWG solid conductors on .025 inch spacing allows for mass termination
- Zippable for branching or discrete termination
- Meets SCSI-3 Fast-20 characteristic impedance requirements
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3Mconnector.com](http://www.3Mconnector.com) for compliance information (RIA E1 & C1 apply)

Date Modified: March 15, 2010

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## Physical

### Insulation:

Material: Thermoplastic Elastomer (TPE)

Color: Gray

### Marking:

Standard: None

Canadian Option:  AWM 20297 105C 150V HB 3M NU  
C  AWM IA 105C 150V FT2 EU <50V

**Conductors:** 30 AWG [ Ø 0.254 ] Tinned Solid Copper

## Electrical

**Voltage Rating:** USA: 150V                      Canada: 150V

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

### Unbalanced

**Characteristic Impedance:** 90  $\Omega$

**Capacitance:** 16.5 pF/ft [ 54.1 pF/m ]

**Inductance:** 0.13  $\mu\text{H}/\text{ft}$  [ 0.43  $\mu\text{H}/\text{m}$  ]

**Propagation Delay:** 1.48 ns/ft [ 4.86 ns/m ]

**Velocity of Propagation:** 69%

Note: Unbalanced is measured between ground-signal-ground conductors.

## Environmental

**Temperature Rating:** -40°C to +105°C

**Flammability Rating:** USA: UL Horizontal Canada: FT2

UL File No.: E42769, Style No: 20297

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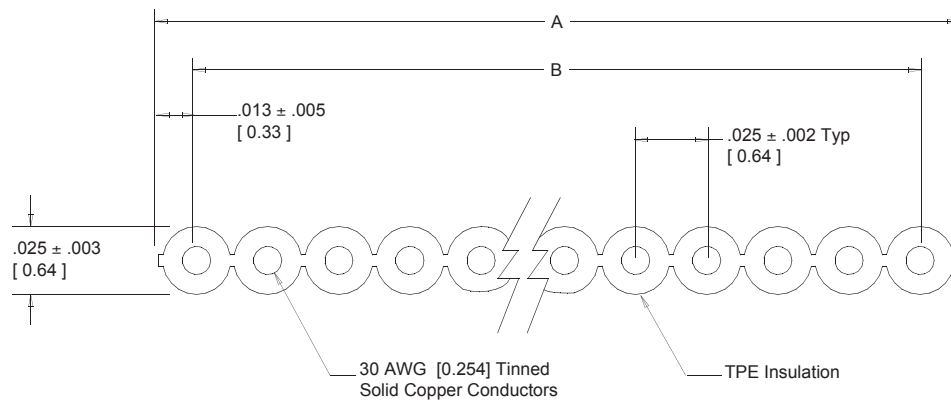
3749 Series



Tolerance Unless Noted			
	.0	.00	.000
Inch	±.1	±.05	±.010

[ ] Dimensions for Reference Only

Number of Conductors	3M Part Number	Dimension A	Dimension B
10	3749/10	0.250 +/- .006 [6.35]	0.225 +/- .004 [5.72]
16	3749/16	0.400 +/- .006 [10.16]	0.375 +/- .004 [9.53]
20	3749/20	0.500 ± .006 [ 12.70 ]	0.475 ± .004 [ 12.07 ]
24	3749/24	0.600 +/- .006 [15.24]	0.575 +/- .004 [14.61]
26	3749/26	0.650 ± .006 [ 16.51 ]	0.625 ± .004 [ 15.88 ]
30	3749/30	0.750 +/- .009 [19.05]	0.725 +/- .006 [18.42]
34	3749/34	0.850 ± .009 [ 21.59 ]	0.825 ± .006 [ 20.96 ]
36	3749/36	0.900 ± .009 [ 22.86 ]	0.875 ± .006 [ 22.23 ]
40	3749/40	1.000 ± .009 [ 25.40 ]	0.975 ± .006 [ 24.77 ]
50	3749/50	1.250 ± .009 [ 31.75 ]	1.225 ± .006 [ 31.12 ]
60	3749/60	1.500 ± .012 [ 38.10 ]	1.475 ± .009 [ 37.47 ]
68	3749/68	1.700 ± .012 [ 43.18 ]	1.675 ± .009 [ 42.55 ]
80	3749/80	2.000 ± .015 [ 50.80 ]	1.975 ± .011 [ 50.17 ]
100	3749/100	2.500 ± .015 [ 63.50 ]	2.475 ± .012 [ 62.87 ]



Note: Blue marking on one edge of cable designates wire #1.

## Ordering Information

**3749 / XX XX**

Number of Conductors  
(See Table)

Blank = Standard  
SF = Splice Free

Note: Available in standard 100 ft or 300 ft rolls, please specify when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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**3M Electronics Solutions Division**

6801 River Place Blvd.  
Austin, TX 78726-9000  
U.S.A.  
1-800-225-5373  
[www.3Mconnector.com](http://www.3Mconnector.com)

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