

# 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.3Mconnectors.com](http://www.3Mconnectors.com) for compliance information (RIA E1 & C1 apply)

Date Modified: November 1, 2013

TS-0068-F  
Sheet 1 of 3

## 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 × 10<sup>10</sup> Ω/10 ft. [ 3 m ]

### Unbalanced

**Characteristic Impedance:** 90 Ω

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

**Inductance:** 0.13 μH/ft [ 0.43 μH/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

# 3M™ Round Conductor Flat Cable

.025" 30 AWG Solid, TPE

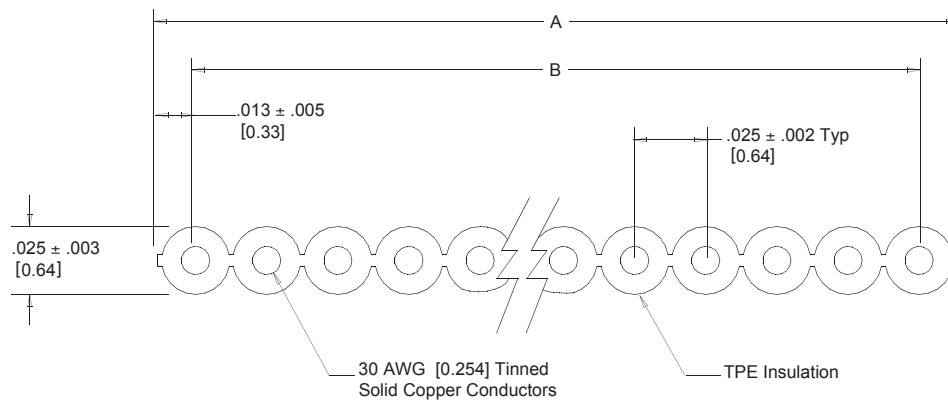
3749 Series



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]
12	3749/12	0.300 ± .006 [7.62]	0.275 ± .004 [6.99]
14	3749/14	0.350 ± .006 [8.89]	0.325 ± .004 [8.26]
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.

TS-0068-F  
Sheet 2 of 3

### **Important Notice**

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

### **Warranty; Limited Remedy; Limited Liability.**

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.



### **Electronic Solutions Division**

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

Please recycle. Printed in USA.  
© 3M 2013 All rights reserved.  
RIA-2217B-E

3M is a trademark of 3M Company.