

# 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

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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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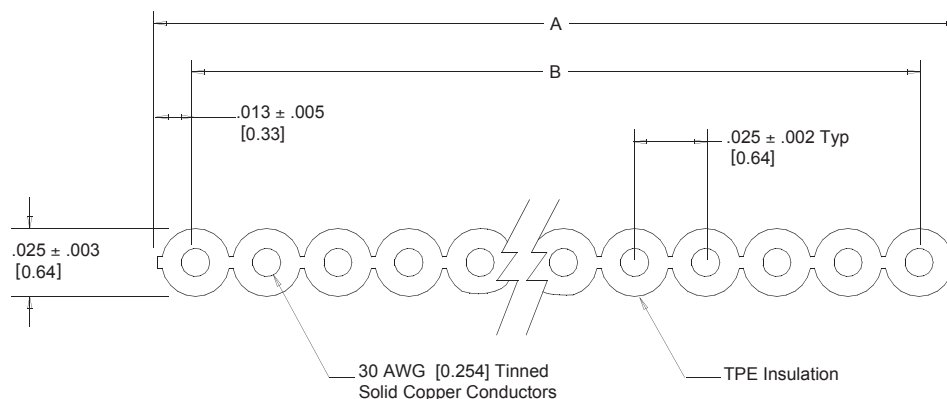
3749 Series



| Inch<br>[mm]           |     |      |       |
|------------------------|-----|------|-------|
| 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.

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