

# 3M™ Round, Jacketed, Flat Cable

.050" 28 AWG Stranded, Mass-Term, PVC/PVC

3834 Series



- High flex life cable product in a round jacketed construction permits flexing
- Round construction permits easier routing
- 28 AWG wire on .050 inch wire spacing permits mass termination to broad line of IDC connectors
- Continuous split/bond repeat allows for mass termination on 2.4 inch centers (approximate)
- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- Primary cable is zippable for branching or discrete terminations
- UL listed for USA and Canadian markets
- 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: July 13, 2010

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## Physical

**Jacket Material:** Polyvinyl Chloride (PVC)

Color: Black

Primary Material: PVC

**Marking Standard:** (UL) CL2 75C 28 AWG 3M NU AWM IIA/B 80C 300V FT1 EU <50V  
28 AWG, 19 × 40 AWG [ 19 ×  $\phi$  0.79 ] Silver Plated Stranded Copper Alloy

**Conductors:** (89% conductivity)

**Inner Wrap:** Polyester Film

## Electrical

**Voltage Rating:** USA: N.E.C. 725, CL2 Canada: 300V EU: <50V

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

| <b>Characteristic Impedance:</b> | <b>Unbalanced</b> | <b>Balanced</b> |
|----------------------------------|-------------------|-----------------|
|                                  | 75 $\Omega$       | 128 $\Omega$    |

|  |                           |
|--|---------------------------|
| <b>Capacitance:</b> 22.4 pF/ft [ 73.5 pF/m ] | 12.8 pF/ft [ 42.00 pF/m ] |
|--|---------------------------|

|  |   |
|--|---|
| <b>Inductance:</b> 0.12 $\mu\text{H/ft [ 0.41 } \mu\text{H/m ]}$ | 0.21 $\mu\text{H/ft [ 0.69 } \mu\text{H/m ]}$ |
|--|---|

|  |                          |
|--|--------------------------|
| <b>Propagation Delay:</b> 1.67 ns/ft [ 1.57 ns/m ] | 1.64 ns/ft [ 5.38 ns/m ] |
|--|--------------------------|

|                                     |     |
|-------------------------------------|-----|
| <b>Velocity of Propagation:</b> 61% | 62% |
|-------------------------------------|-----|

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

## Environmental

**Temperature Rating:** USA: CL2: 75°C; Canada: 80°C

**Flammability Rating:** USA: N.E.C. 725, CL2; Canada: FT1

UL File No.: E118773, Power Limited Circuit Cable: CL2

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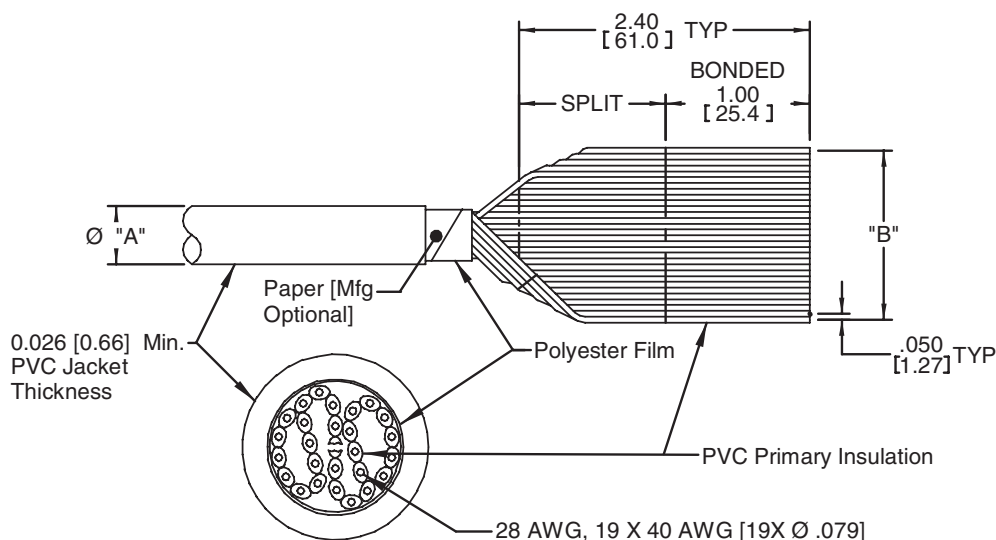


Inch  
[mm]

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

[ ] Dimensions for Reference Only

| Number of Conductors | 3M Part Number | Dimension A ± .03 | Dimension B (See Note 2) |
|----------------------|----------------|-------------------|--------------------------|
| 10                   | 3834/10        | 0.26 [ 6.6 ]      | 0.45 [ 11.4 ]            |
| 14                   | 3834/14        | 0.27 [ 6.9 ]      | 0.65 [ 16.5 ]            |
| 16                   | 3834/16        | 0.27 [ 6.9 ]      | 0.75 [ 19.1 ]            |
| 20                   | 3834/20        | 0.30 [ 7.6 ]      | 0.95 [ 24.1 ]            |
| 24                   | 3834/24        | 0.33 [ 8.4 ]      | 1.15 [ 29.2 ]            |
| 26                   | 3834/26        | 0.33 [ 8.4 ]      | 1.25 [ 31.8 ]            |
| 34                   | 3834/34        | 0.37 [ 9.4 ]      | 1.65 [ 41.9 ]            |
| 40                   | 3834/40        | 0.39 [ 9.9 ]      | 1.95 [ 49.5 ]            |
| 50                   | 3834/50        | 0.44 [ 11.2 ]     | 2.45 [ 62.2 ]            |
| 60                   | 3834/60        | 0.47 [ 11.9 ]     | 2.95 [ 74.9 ]            |
| 64                   | 3834/64        | 0.50 [ 12.7 ]     | 3.15 [ 80.0 ]            |



**Notes:**

1. Red marking on one edge of primary cable designates wire #1.
2. Dimension B pertains to bonded area only.

## Ordering Information

**3834/XX XX XX**

Number of Conductors  
(See Table)

Blank = Standard  
SO = Continuously Bonded Wire (No Split)

Blank = Standard  
SF = Splice Free

**Note3:**

Available in standard 275 ft. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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