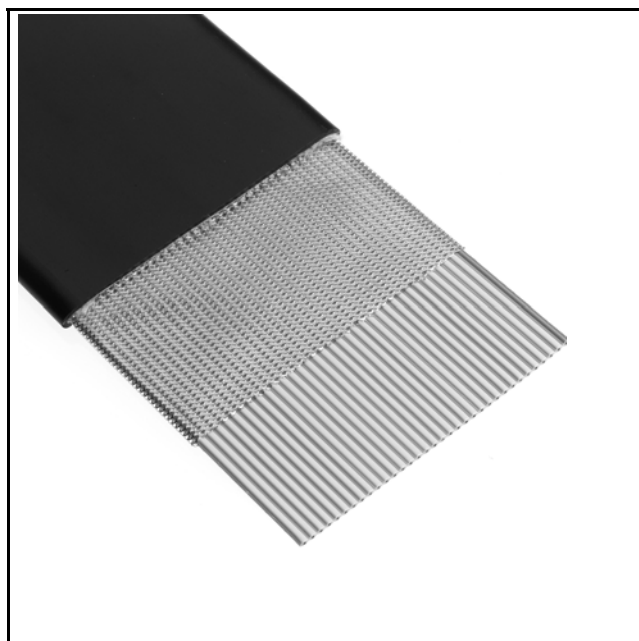


# 3M™ Shielded/Jacketed, Flat Cable

.050" 28 AWG Stranded, PVC/PVC

3517 Series



- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- UL listed for USA and Canadian markets
- 28 AWG stranded wire on .050 inch centers permits mass termination to broad line of IDC connectors
- 360 degree expanded copper shielding provides 20 db average shielding effectiveness
- Primary cable is zippable for branching or discrete terminations
- RoHS\* compliant

Date Modified: November 15, 2006

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## Physical

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

Color: Black

Material: PVC

Color: Gray

**Marking:**

Standard: (UL) CL2 75C 28 AWG or AWM 20879 3M NU C AWM IIA/B 80C 300V FT1 EU<50V

**Conductors:** 28 AWG, 7 × 36 AWG [ 7 × Ø 0.127 ] Tinned Stranded Copper

**Shielding Material:** Expanded Copper

## Electrical

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

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

|                                  | Unbalanced                                                   | Balanced                                                     |
|----------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| <b>Characteristic Impedance:</b> | 70 $\Omega$                                                  | 119 $\Omega$                                                 |
| <b>Capacitance:</b>              | 21.5 pF/ft [ 70.5 pF/m ]                                     | 12.7 pF/ft [ 41.7 pF/m ]                                     |
| <b>Inductance:</b>               | 0.11 $\mu\text{H}/\text{ft}$ [ 0.35 $\mu\text{H}/\text{m}$ ] | 0.18 $\mu\text{H}/\text{ft}$ [ 0.59 $\mu\text{H}/\text{m}$ ] |
| <b>Propagation Delay:</b>        | 1.51 ns/ft [ 4.95 ns/m ]                                     | 1.51 ns/ft [ 4.95 ns/m ]                                     |
| <b>Velocity of Propagation:</b>  | 67%                                                          | 67%                                                          |

Note: Unbalanced is measured between ground-signal-ground conductors, with shield grounded. Balanced is measured between signal conductors within a pair, with the shield floating.

## Environmental

**Temperature Rating:** USA: CL2; 75°C or AWM: -20°C to +80°C Canada: 80°C

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

\*\*"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

UL File No.: E118773, Power Limited Circuit Cable: CL2 (or AWM Style 20879)

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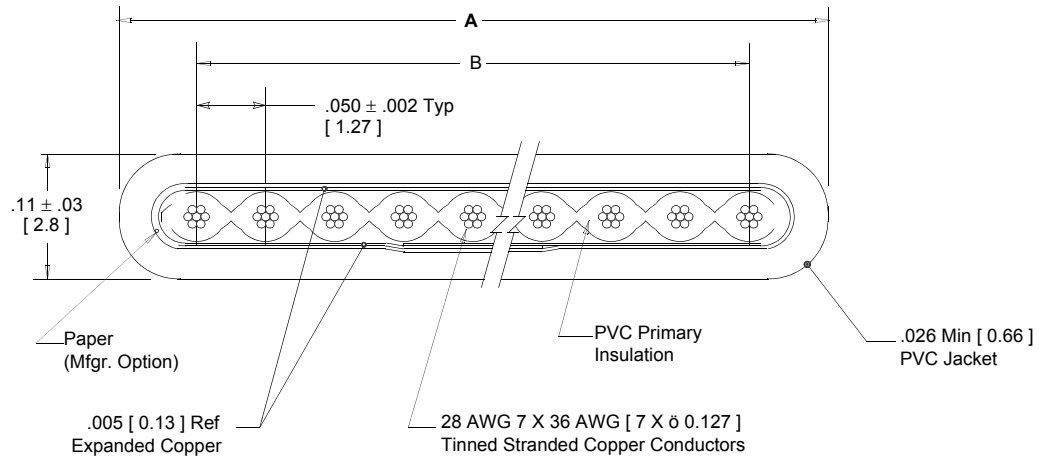


Inch  
[mm]

| Tolerance Unless Noted |     |      |       |
|------------------------|-----|------|-------|
|                        | .0  | .00  | .000  |
| inch                   | ±.1 | ±.01 | ±.005 |

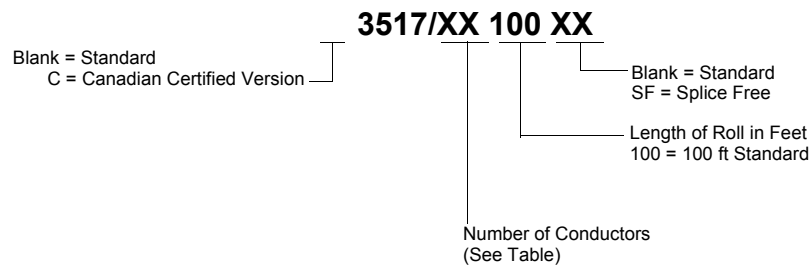
[ ] Dimensions for Reference Only

| Number of Conductors | 3M Part Number | Dimension A ± .04 | Dimension B            |
|----------------------|----------------|-------------------|------------------------|
| 09                   | <b>3517/09</b> | .58 [ 14.7 ]      | 0.400 ± .007 [ 10.16 ] |
| 10                   | <b>3517/10</b> | .63 [ 16.0 ]      | 0.450 ± .007 [ 11.43 ] |
| 14                   | <b>3517/14</b> | .83 [ 21.1 ]      | 0.650 ± .007 [ 16.51 ] |
| 15                   | <b>3517/15</b> | .88 [ 22.4 ]      | 0.700 ± .007 [ 17.78 ] |
| 16                   | <b>3517/16</b> | .93 [ 23.6 ]      | 0.750 ± .011 [ 19.05 ] |
| 20                   | <b>3517/20</b> | 1.13 [ 28.7 ]     | 0.950 ± .011 [ 24.13 ] |
| 24                   | <b>3517/24</b> | 1.33 [ 33.8 ]     | 1.150 ± .011 [ 29.21 ] |
| 25                   | <b>3517/25</b> | 1.38 [ 35.0 ]     | 1.200 ± .011 [ 30.48 ] |
| 26                   | <b>3517/26</b> | 1.43 [ 36.3 ]     | 1.250 ± .011 [ 31.75 ] |
| 30                   | <b>3517/30</b> | 1.63 [ 41.4 ]     | 1.450 ± .015 [ 36.83 ] |
| 34                   | <b>3517/34</b> | 1.83 [ 46.5 ]     | 1.650 ± .015 [ 41.91 ] |
| 36                   | <b>3517/36</b> | 1.93 [ 49.0 ]     | 1.750 ± .015 [ 44.45 ] |
| 37                   | <b>3517/37</b> | 1.98 [ 50.3 ]     | 1.800 ± .015 [ 45.72 ] |
| 40                   | <b>3517/40</b> | 2.13 [ 54.1 ]     | 1.950 ± .015 [ 49.53 ] |
| 50                   | <b>3517/50</b> | 2.63 [ 66.8 ]     | 2.450 ± .015 [ 62.23 ] |
| 60                   | <b>3517/60</b> | 3.13 [ 79.5 ]     | 2.950 ± .015 [ 74.93 ] |
| 64                   | <b>3517/64</b> | 3.38 [ 85.9 ]     | 3.150 ± .015 [ 80.01 ] |



Note: Red marking on edge of primary cable designates wire #1.

## Ordering Information



Note: Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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