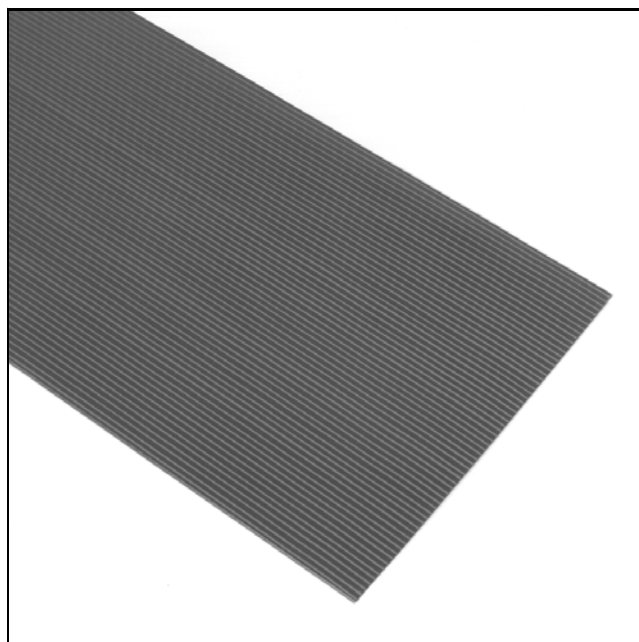


# 3M™ High Flex Life Cable

.050" 28 AWG Stranded, PVC

3319 Series



- Flex life of 100 million cycles at 1 3/4 inch diameter
- 19 strands of high strength copper alloy provide the longest flex life available for dynamic applications
- 28 AWG wire on .050 inch wire spacing permits mass termination to a broad line of IDC connectors
- Zippable for branching or discrete termination
- RoHS\* Compliant

Date Modified: January 17, 2005

TS-0059-13  
Sheet 1 of 2

## Physical

### Insulation

Material: Polyvinyl Chloride (PVC)

Color: Black

### Marking:

Standard: None

Canadian Option:  AWM 2651 105C 300V VW1 3M NU  
 AWM IA 105C 300V FT1  
EU <50V

**Conductors:** 28 AWG 19 x 40 [ 19 x 0.079 ] Silver Plated Stranded Copper Alloy (89% Conductivity)

## Electrical

**Voltage Rating:** USA: 300V

Canada: 300V

EU: <50V

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

### Unbalanced

### Balanced

**Characteristic Impedance:** 103  $\Omega$

171  $\Omega$

**Capacitance:** 13.6 pF/ft (44.62 pF/m)

7.9 pF/ft (25.91 pF/m)

**Inductance:** 15  $\mu\text{H}/\text{ft}$  (0.49  $\mu\text{H}/\text{m}$ )

.23  $\mu\text{H}/\text{ft}$  (0.71  $\mu\text{H}/\text{m}$ )

**Propagation Delay:** 1.40 ns/ft (4.59 ns/m)

1.35 ns/ft (4.43 ns/m)

**Velocity of Propagation:** 73%

75%

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

## Environmental

**Temperature Rating:** -20°C to +105°C

**Flammability Rating:** USA: VW-1

Canada: FT1

UL File No.: E42769, Style No.: 2651

RoHS = Directive 2002/95/EC,  
Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment



Interconnect Solutions

<http://www.3M.com/interconnects/>

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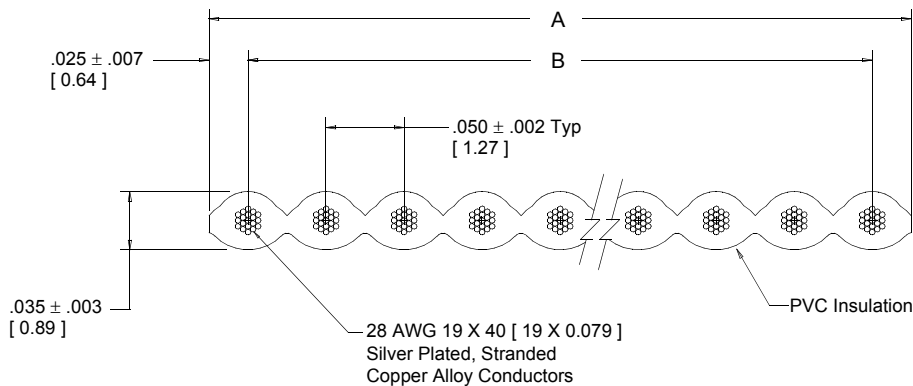
800-225-5373

# 3M™ High Flex Life Cable

.050" 28 AWG Stranded, PVC

3319 Series

| Number of Conductors | 3M Part Number | Dimension A            | Dimension B            |
|----------------------|----------------|------------------------|------------------------|
| 09                   | 3319/09        | 0.450 ± .010 [ 11.43 ] | 0.400 ± .007 [ 10.18 ] |
| 10                   | 3319/10        | 0.500 ± .010 [ 12.70 ] | 0.450 ± .007 [ 11.43 ] |
| 14                   | 3319/14        | 0.700 ± .010 [ 17.78 ] | 0.650 ± .007 [ 16.51 ] |
| 15                   | 3319/15        | 0.750 ± .010 [ 19.05 ] | 0.700 ± .007 [ 17.78 ] |
| 16                   | 3319/16        | 0.800 ± .015 [ 20.32 ] | 0.750 ± .011 [ 19.05 ] |
| 20                   | 3319/20        | 1.000 ± .015 [ 25.40 ] | 0.950 ± .011 [ 24.13 ] |
| 24                   | 3319/24        | 1.200 ± .015 [ 30.48 ] | 1.150 ± .011 [ 29.21 ] |
| 25                   | 3319/25        | 1.250 ± .015 [ 31.75 ] | 1.200 ± .011 [ 30.48 ] |
| 26                   | 3319/26        | 1.300 ± .015 [ 33.02 ] | 1.250 ± .011 [ 31.75 ] |
| 30                   | 3319/30        | 1.500 ± .020 [ 38.10 ] | 1.450 ± .015 [ 36.83 ] |
| 34                   | 3319/34        | 1.700 ± .020 [ 43.18 ] | 1.650 ± .015 [ 41.91 ] |
| 36                   | 3319/36        | 1.800 ± .020 [ 45.72 ] | 1.750 ± .015 [ 44.45 ] |
| 37                   | 3319/37        | 1.850 ± .020 [ 46.99 ] | 1.800 ± .015 [ 45.72 ] |
| 40                   | 3319/40        | 2.000 ± .020 [ 50.80 ] | 1.950 ± .015 [ 49.53 ] |
| 50                   | 3319/50        | 2.500 ± .020 [ 63.50 ] | 2.450 ± .015 [ 62.23 ] |
| 60                   | 3319/60        | 3.000 ± .020 [ 76.20 ] | 2.950 ± .015 [ 74.93 ] |
| 64                   | 3319/64        | 3.200 ± .020 [ 81.28 ] | 3.150 ± .015 [ 80.01 ] |



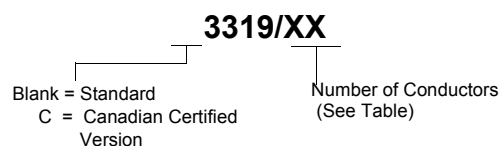
Inch  
[mm]

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

[ ] Dimensions for Reference Only

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

## Ordering Information



Note: Standard lengths of 100 foot and 300 foot rolls are available. Please specify when ordering.

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Sheet 2 of 2

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