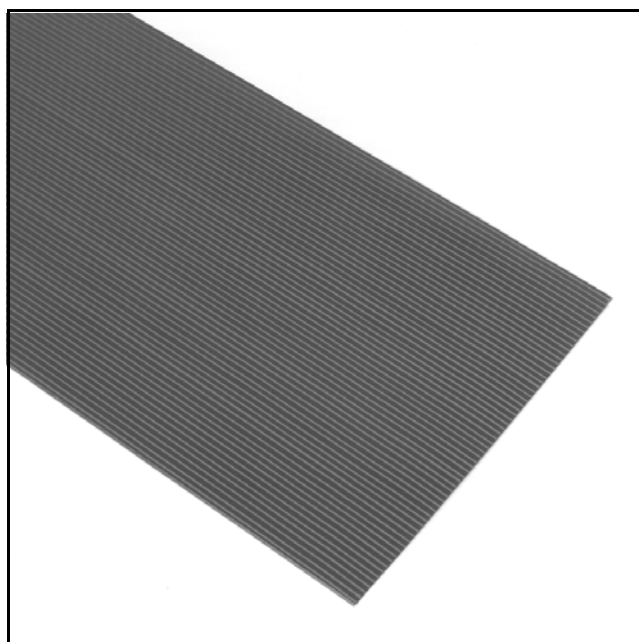


# 3M™ High Flex Life Cable

.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: December 12, 2006

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## Physical

### Insulation

Material: Polyvinyl Chloride (PVC)

Color: Black

### Marking

Standard: None

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

**Conductors:** 28 AWG, 19 x 40 AWG [ 19 x Ø 0.79 ] 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:** 0.14  $\mu\text{H}/\text{ft}$  [0.47  $\mu\text{H}/\text{m}$ ]

0.23  $\mu\text{H}/\text{ft}$  [0.76  $\mu\text{H}/\text{m}$ ]

**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

"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.

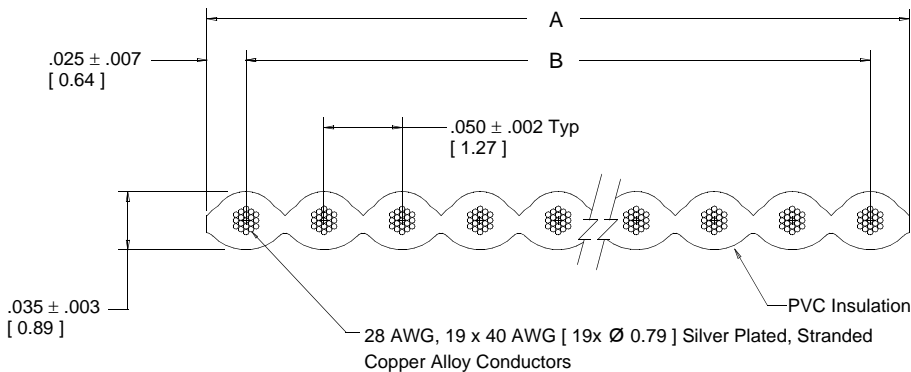
UL File No.: E42769, Style No.: 2651

# 3M™ High Flex Life Cable

.050" 28 AWG Stranded, PVC

3319 Series

Number of Conductors	3M Part Number	Dimension A	Dimension B
06	3319/06	0.300 ± .010 [ 7.62 ]	0.250 ± .007 [ 6.35 ]
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

Blank = Standard  
C = Canadian Certified Version

**3319 / XX X00 XX**

Blank = Standard  
SF = Splice Free

Length of Roll in Feet  
100 = 100 ft Standard  
300 = 300 ft Standard

Number of Conductors  
(See Table)

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

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