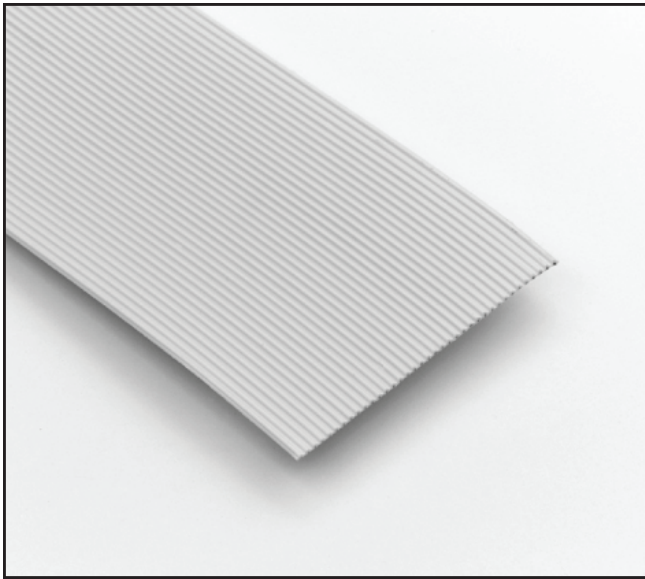


# 3M™ Round Conductor Flat Cable

.025" 30 AWG Solid, Halogen-Free Insulation

2049 Series



- Advantages of this halogen free insulation are low smoke (BSS 7238) and low toxicity of combustion gases (NES 713) reducing risk to firefighters and low corrosivity of combustion gases (pH≈6.0) reducing damage to nearby equipment.
- 30 AWG solid conductors on .025 inch pitch permits higher signal density and mass-termination.
- Please contact your 3M sales representative for variations not described in this specification.
- See Regulatory Information Appendix (RIA) for chemical compliance information (RIA E1 & C1 apply)

Date Modified: May 5, 2009

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## Physical

### Insulation:

Material: Halogen-Free Polyolefin (PO) Appendix C1 & E1 apply.

Color: Off-White

### Marking:

Standard: None

**Conductors:** 30 AWG [ Ø 0.15 ] Tinned Solid Copper

## Electrical

**Voltage Rating:** USA: 20V EU: <50V

**Insulation Resistance:** (Primary Cable) > 1 × 10<sup>10</sup> Ω/10 ft. [ 3 m ]

	<b>Unbalanced</b>	<b>Balanced</b>
<b>Characteristic Impedance:</b>	83 Ω	137 Ω

<b>Capacitance:</b>	19.0 pF/ft [ 62.3 pF/m ]	11.1 pF/ft [ 36.4 pF/m ]
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<b>Inductance:</b>	0.13 μH/ft [ 0.43 μH/m ]	0.21 μ"/ft [ 0.66 μ"/m ]
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<b>Propagation Delay:</b>	1.58 ns/ft [ 5.18 ns/m ]	1.52 ns/ft [ 4.99 ns/m ]
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<b>Velocity of Propagation:</b>	64%	67%
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Note: Unbalanced is measured between ground-signal-ground conductors.

## Environmental

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

**Flammability Rating:** USA: UL: Horizontal

UL File No.: E42769, Style No: 20930

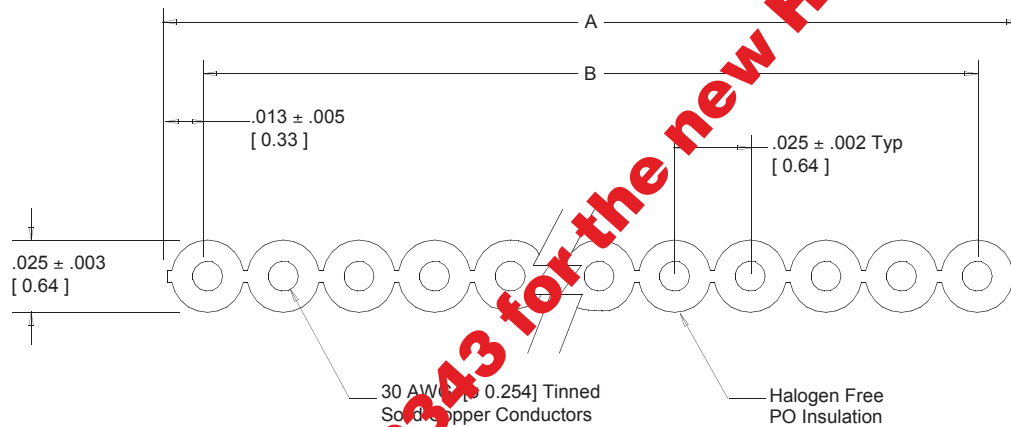
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Number of Conductors	3M Part Number	Dimension A	Dimension B
20	2049/20	0.500 ± .006 [ 12.70 ]	0.475 ± .004 [ 12.07 ]
26	2049/26	0.650 ± .006 [ 16.51 ]	0.625 ± .004 [ 15.88 ]
34	2049/34	0.850 ± .009 [ 21.59 ]	0.825 ± .006 [ 20.96 ]
36	2049/36	0.900 ± .009 [ 22.86 ]	0.875 ± .006 [ 22.23 ]
40	2049/40	1.000 ± .009 [ 25.40 ]	0.975 ± .006 [ 24.77 ]
50	2049/50	1.250 ± .009 [ 31.75 ]	1.225 ± .006 [ 31.12 ]
60	2049/60	1.500 ± .012 [ 38.10 ]	1.475 ± .009 [ 37.47 ]
68	2049/68	1.700 ± .012 [ 43.18 ]	1.675 ± .009 [ 42.55 ]
80	2049/80	2.000 ± .015 [ 50.80 ]	1.975 ± .011 [ 50.17 ]
100	2049/100	2.500 ± .015 [ 63.50 ]	2.475 ± .012 [ 62.87 ]



Inch [mm]			
Tolerance Unless Noted			
	.0	.00	.000
Inch	±.1	±.01	±.005

Note:

- Blue marking on one edge of cable designates wire #1.

[ ] Dimensions for Reference Only

## Ordering Information

2049/XX XX

Number of Conductors  
(See Table)

Blank = Standard  
SF = Splice Free

Note:

- Available in standard lengths of 30 m and 100 m per roll, please specify when ordering.

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