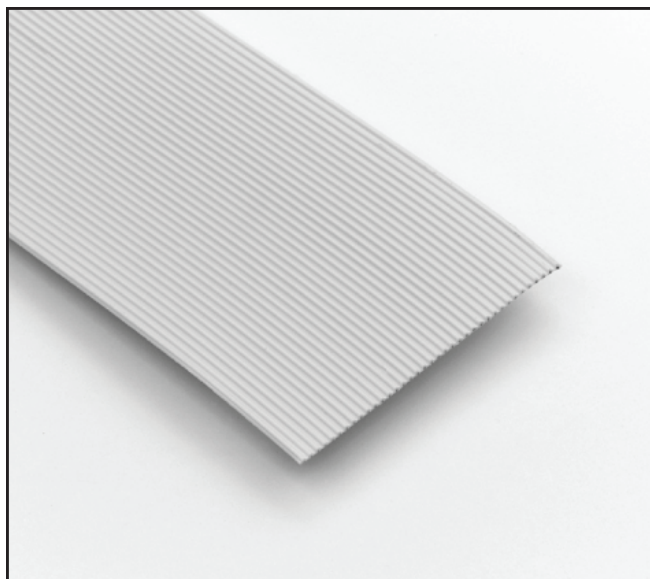


3M™ Round Conductor Flat Cable

.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 0.051] Tinned Solid Copper

Electrical

Voltage Rating: USA: 30V

EU: <50V

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

Characteristic Impedance: Unbalanced
83 Ω

Balanced
137 Ω

Capacitance: 19.0 pF/ft [62.3 pF/m]

11.1 pF/ft [36.4 pF/m]

Inductance: 0.13 $\mu\text{H}/\text{ft}$ [0.43 $\mu\text{H}/\text{m}$]

0.21 $\mu\text{H}/\text{ft}$ [0.66 $\mu\text{H}/\text{m}$]

Propagation Delay: 1.58 ns/ft [5.18 ns/m]

1.52 ns/ft [4.99 ns/m]

Velocity of Propagation: 64%

67%

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

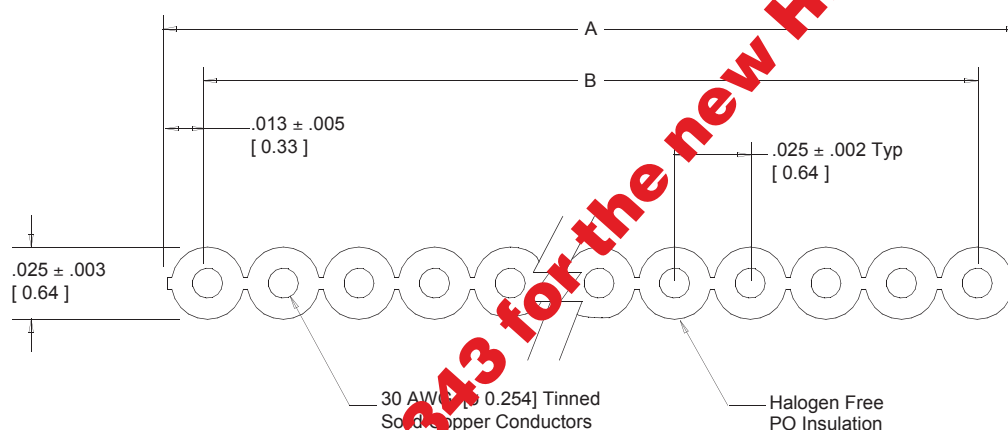
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Number of Conductors	3M Part Number	Dimension A	Dimension B
20	2049/20	0.500 ± .006 [12.70]	0.475 ± .004 [12.07]
26	2049/26	0.650 ± .006 [16.51]	0.625 ± .004 [15.88]
34	2049/34	0.850 ± .009 [21.59]	0.825 ± .006 [20.96]
36	2049/36	0.900 ± .009 [22.86]	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]



Note:

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

Inch
[mm]

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

[] 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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Sheet 2 of 2



Interconnect Solutions

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

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