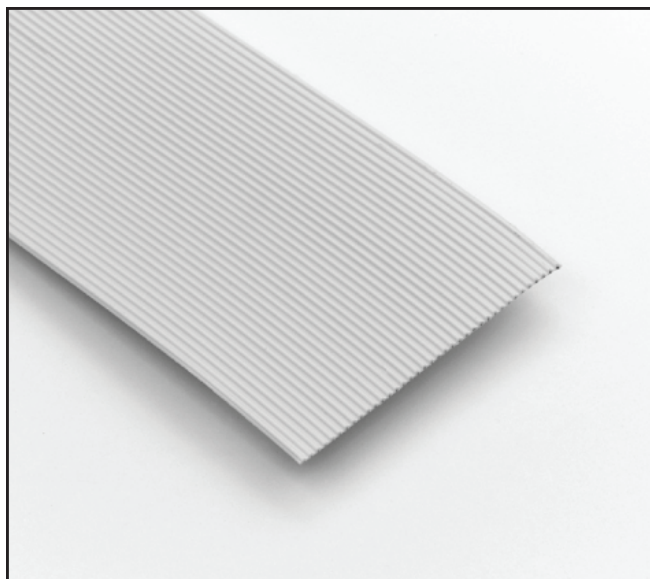


3M™ Round Conductor Flat Cable

.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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Sheet 1 of 2

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

3M

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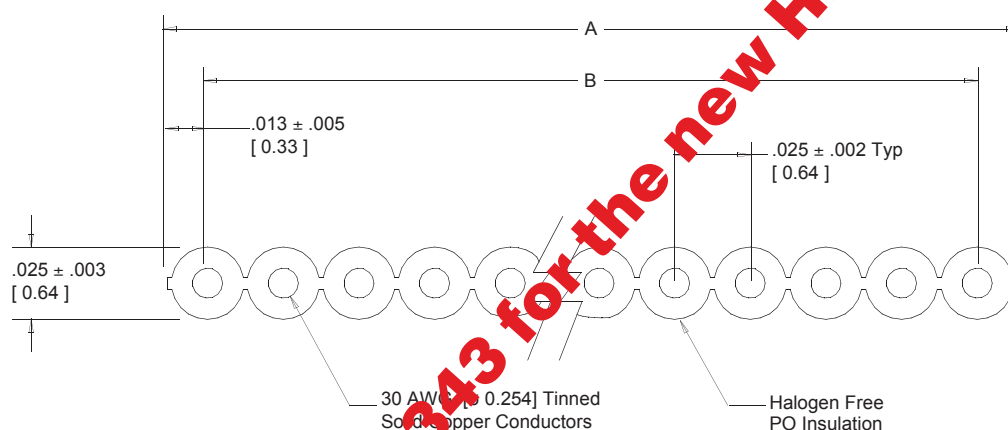
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| Number of Conductors | 3M Part Number | Dimension A | Dimension B |
|----------------------|----------------|------------------------|------------------------|
| 20 | 2049/20 | 0.500 ± .006 [12.70] | 0.475 ± .004 [12.07] |
| 26 | 2049/26 | 0.650 ± .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



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