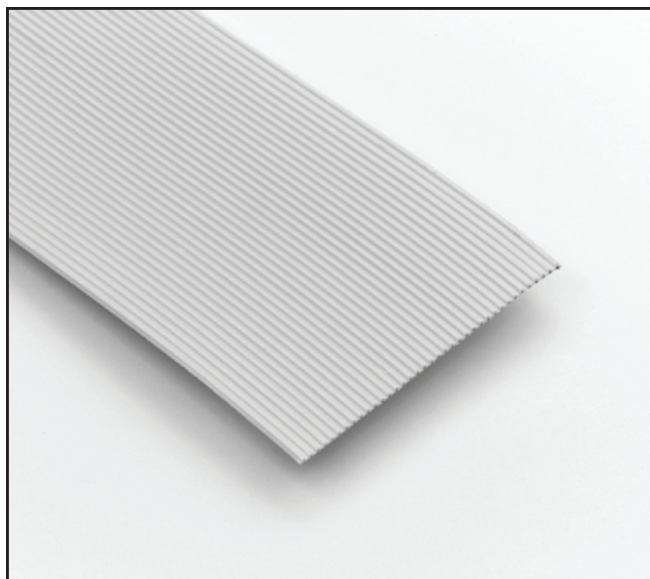


# 3M™ Round Conductor Flat Cable

.050" 28 AWG Stranded, Halogen-Free Insulation

2010 Series



- Advantage of this halogen free insulation are low smoke (BSS 7238) and low toxicity of combustion gases (NES 713) reducing the risk to firefighters and low corrosivity of combustion gases (pH approximately 6.0) reducing damage to nearby equipment
- 28 AWG stranded conductors on .050 inch pitch permits mass terminations to a broad line of IDC connectors
- Zippable for branching or discrete 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: September 9, 2010

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## Physical

### Insulation:

Material: Halogen-Free Polyolefin (PO)

Color: off-white

### Marking:

Standard: None

**Conductors:** 28 AWG, 7 × 36 AWG [ 7 × Ø 0.127 ] Tinned Stranded Copper

## Electrical

**Voltage Rating:** USA: 30V EU: <50V

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

|                                  |                   |                 |
|----------------------------------|-------------------|-----------------|
| <b>Characteristic Impedance:</b> | <b>Unbalanced</b> | <b>Balanced</b> |
|                                  | 107 $\Omega$      | 176 $\Omega$    |

**Capacitance:** 14.0 pF/ft [ 45.93 pF/m ] 8.2 pF/ft [ 26.95 pF/m ]

**Inductance:** 0.16  $\mu\text{H/ft}$  [ 0.53  $\mu\text{H/m}$  ] 0.26  $\mu\text{H/ft}$  [ 0.84  $\mu\text{H/m}$  ]

**Propagation Delay:** 1.50 ns/ft [ 4.92 ns/m ] 1.45 ns/ft [ 4.76 ns/m ]

**Velocity of Propagation:** 68% 70%

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:** UL: Horizontal IEC 332-1, -2, & -3

UL File No.: E42769, Style No: 20930

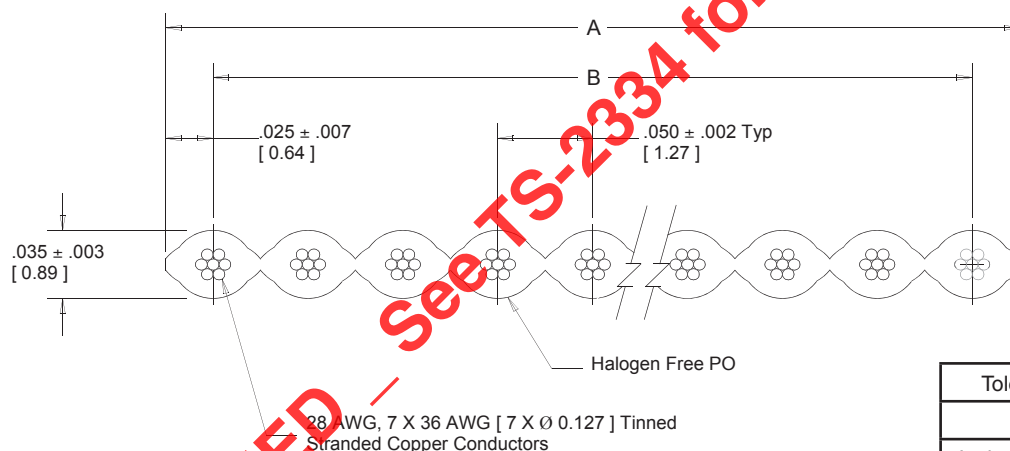
# 3M™ Round Conductor Flat Cable

.050" 28 AWG Stranded, Halogen-Free Insulation

2010 Series



| Number of Conductors | 3M Part Number | Dimension A            | Dimension B            |
|----------------------|----------------|------------------------|------------------------|
| 09                   | 2010/09        | .450 ± .010 [ 11.43 ]  | .400 ± .007 [ 10.16 ]  |
| 10                   | 2010/10        | .500 ± .010 [ 12.70 ]  | .450 ± .007 [ 11.43 ]  |
| 14                   | 2010/14        | .700 ± .010 [ 17.78 ]  | .650 ± .007 [ 16.51 ]  |
| 15                   | 2010/15        | .750 ± .010 [ 19.05 ]  | .700 ± .007 [ 17.78 ]  |
| 16                   | 2010/16        | .800 ± .015 [ 20.32 ]  | .750 ± .011 [ 19.05 ]  |
| 18                   | 2010/18        | .900 ± .015 [ 22.88 ]  | .850 ± .011 [ 21.59 ]  |
| 20                   | 2010/20        | 1.000 ± .015 [ 25.40 ] | 0.950 ± .011 [ 24.13 ] |
| 24                   | 2010/24        | 1.200 ± .015 [ 30.48 ] | 1.150 ± .011 [ 29.21 ] |
| 25                   | 2010/25        | 1.250 ± .015 [ 31.75 ] | 1.200 ± .011 [ 30.48 ] |
| 26                   | 2010/26        | 1.300 ± .015 [ 33.02 ] | 1.250 ± .011 [ 31.75 ] |
| 30                   | 2010/30        | 1.500 ± .020 [ 38.10 ] | 1.450 ± .015 [ 36.83 ] |
| 34                   | 2010/34        | 1.700 ± .020 [ 43.18 ] | 1.650 ± .015 [ 41.91 ] |
| 36                   | 2010/36        | 1.800 ± .020 [ 45.72 ] | 1.750 ± .015 [ 44.45 ] |
| 37                   | 2010/37        | 1.850 ± .020 [ 46.99 ] | 1.800 ± .015 [ 45.72 ] |
| 40                   | 2010/40        | 2.000 ± .020 [ 50.80 ] | 1.950 ± .015 [ 49.53 ] |
| 50                   | 2010/50        | 2.500 ± .020 [ 63.50 ] | 2.450 ± .015 [ 62.23 ] |
| 60                   | 2010/60        | 3.000 ± .020 [ 76.20 ] | 2.950 ± .015 [ 74.93 ] |
| 64                   | 2010/64        | 3.200 ± .020 [ 81.28 ] | 3.150 ± .015 [ 80.01 ] |



Note:

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

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

[ ] Dimensions for Reference Only

## Ordering Information

2010/XX XX

Number of Conductors  
(See Table)

Blank = Standard  
SF = Splice Free

Note:

Available in standard 100 ft and 300 ft rolls, please specify when ordering. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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Interconnect Solutions

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