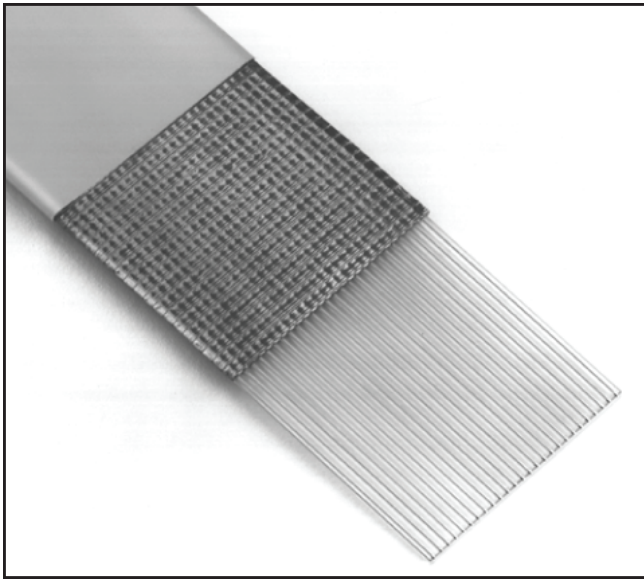


# 3M™ Pleated Foil Shielded Cable

.050" 28 AWG Stranded, TPE Primary, Thin TPE Cover

90204 Series



- Can be used with IDC mass termination connectors
- Can be used in applications requiring standard impedance of 100Ω balanced (differential)
- Extremely low crosstalk, even when used in the all signal mode
- Perfect for board-to-board applications within electronic equipment, TPE covering prevents pleated copper foil from accidental shorting
- Solid pleated copper foil provides flexibility and 35 db average shielding effectiveness
- See Regulatory Information Appendix (RIA) for chemical compliance information (RIA E1 & C1 apply)

Date Modified: July 16, 2009



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## Physical

**Cover Material:** Thermoplastic Elastomer (TPE) **Color:** Gray

**Primary Material:** Thermoplastic Elastomer (TPE) **Color:** Natural

**Marking Standard:** None

Canadian Option:  AWM 20674 105C 300V VW1 3M NU C  AWM IA 105C 150V FT1 EU <50V

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

**Shielding:** Solid, Pleated, Copper Foil

## Electrical

**Voltage Rating:** USA: 300V Canada: 150V EU: <50V

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

**Characteristic Impedance:**

Unbalanced	Balanced
53 Ω	110 Ω

**Capacitance:** 28.1 pF/ft [ 92.2 pF/m ] 13.4 pF/ft [ 44.0 pF/m ]

**Inductance:** 0.08 μH/ft [ 0.26 μH/m ] 0.16 μH/ft [ 0.54 μH/m ]

**Propagation Delay:** 1.49 ns/ft [ 4.89 ns/m ] 1.48 ns/ft [ 4.86 ns/m ]

**Velocity of Propagation:** 68% 69%

Note: Unbalanced is measured between ground-signal-ground conductors, with shield grounded. Balanced is measured between signal conductors within a pair, with the shield floating.

## Environmental

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

**Flammability Rating:** USA: VW-1 Canada: FT1

UL File No.: E42769, Style No.: 20674

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

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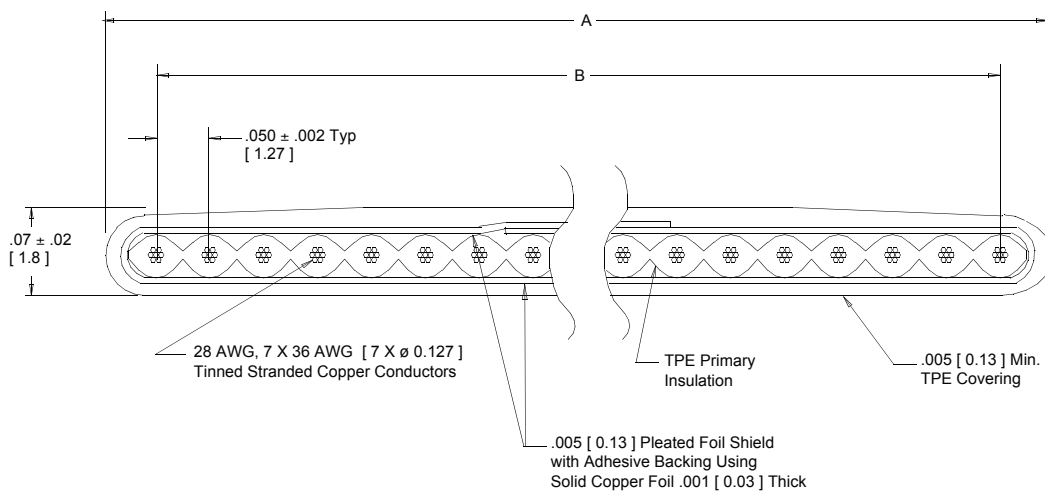
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Number of Conductors	3M Part Number	Dimension A	Dimension B
15	90204/15	0.79 [ 20.1 ]	0.700 ± .007 [ 17.78 ]
20	90204/20	1.04 [ 26.5 ]	0.950 ± .011 [ 24.13 ]
25	90204/25	1.29 [ 32.8 ]	1.200 ± .011 [ 30.48 ]
26	90204/26	1.34 [ 34.1 ]	1.250 ± .011 [ 31.75 ]
34	90204/34	1.74 [ 44.3 ]	1.650 ± .015 [ 41.91 ]
37	90204/37	1.89 [ 48.1 ]	1.800 ± .015 [ 45.72 ]
40	90204/40	2.04 [ 51.9 ]	1.950 ± .015 [ 49.53 ]
50	90204/50	2.54 [ 64.6 ]	2.450 ± .015 [ 62.23 ]
60	90204/60	3.04 [ 77.3 ]	2.950 ± .015 [ 74.93 ]
64	90204/64	3.24 [ 82.4 ]	3.150 ± .015 [ 80.01 ]

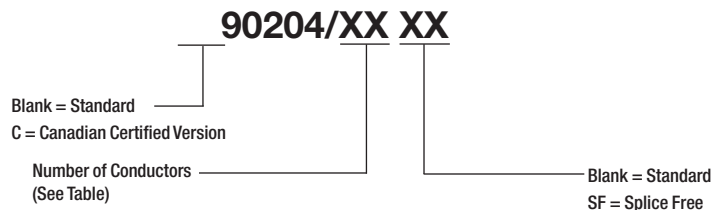


Tolerance Unless Noted			
	Inch [mm]		
	.0	.00	.000
Inch	±.1	±.05	±.010

Note: Blue marking on edge of primary cable designates wire #1.

[ ] Dimensions for Reference Only

## Ordering Information



Note: Available in standard 100 ft rolls. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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