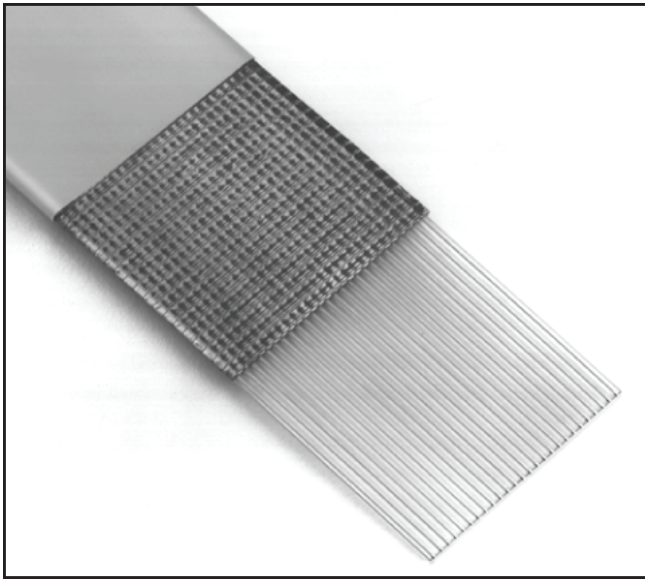


3M™ Pleated Foil Shielded Cable

.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)
- 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: September 3, 2013

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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 × 10¹⁰ 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

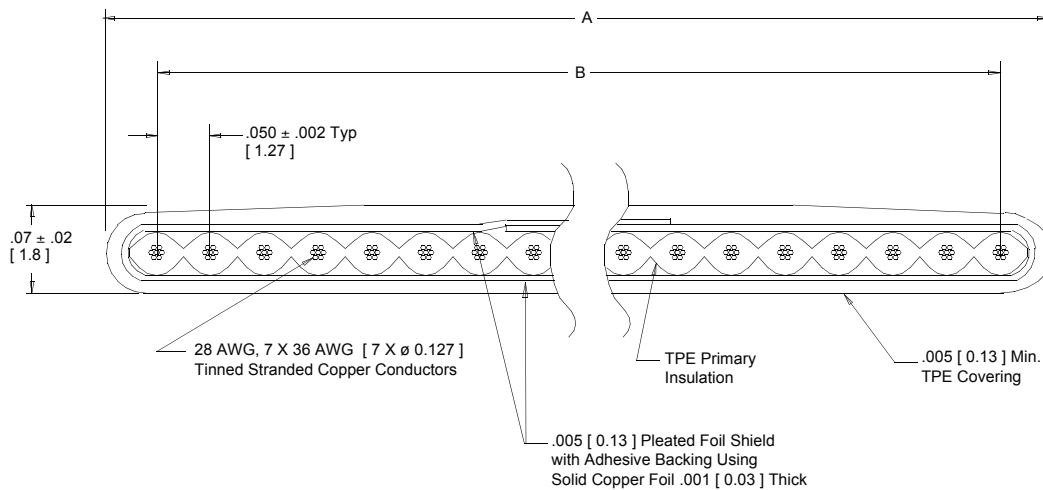
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90204 Series



| 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] |

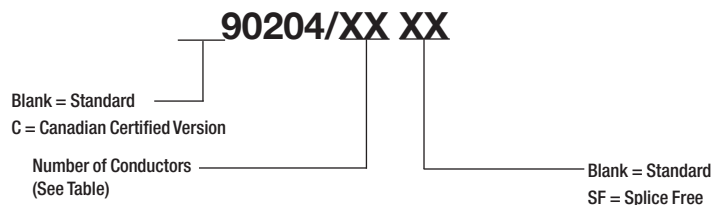


| Inch [mm] | | | |
|------------------------|-----|------|-------|
| Tolerance Unless Noted | | | |
| | .0 | .00 | .000 |
| Inch | ±.1 | ±.05 | ±.010 |

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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