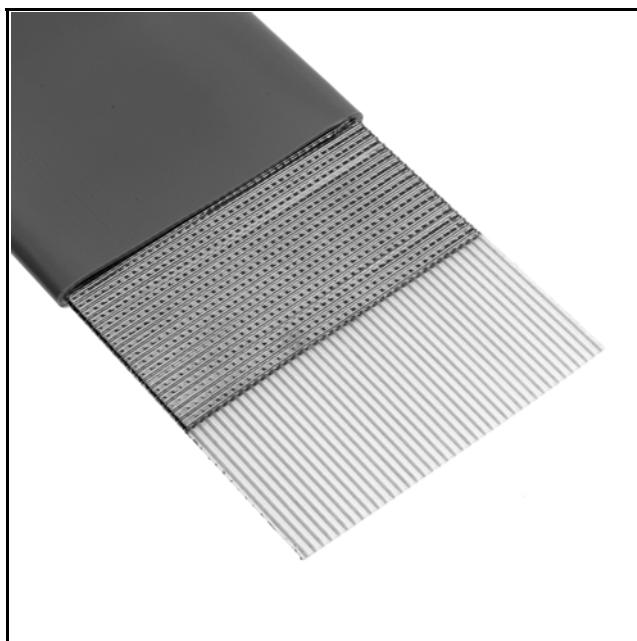


# 3M™ Pleated Foil Shielded Cable

.050" 28 AWG Stranded, TPE Primary, PVC Jacket

90104 Series



- Can be used with IDC mass termination connectors
- Can be used in applications requiring standard impedance of 100  $\Omega$  balanced (differential)
- Low crosstalk, even when used in the all signal mode
- CL2 rated, rugged design and high reliability for peripheral applications
- Solid pleated copper foil provides flexibility and 35 db average shielding effectiveness
- RoHS\* Compliant

Date Modified: November 28, 2006

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Sheet 1 of 2

## Physical

**Jacket Material:** Polyvinyl Chloride (PVC); **Color:** Gray

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

**Marking:**

Standard:: (UL) CL2 75C 28 AWG 3M NU  AWM II A/B 80C 150V FT1 EU <50V

**Conductors:** 28 AWG, 7  $\times$  36 AWG [ 7  $\times$   $\phi$  0.127 ] Tinned Stranded Copper

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

## Electrical

**Voltage Rating:** USA: N.E.C. 725, CL2      Canada: 150V      EU: <50V

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

**Unbalanced**

**Balanced**

**Characteristic Impedance:** 53  $\Omega$

110  $\Omega$

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

13.4 pF/ft [ 44.0 pF/m ]

**Inductance:** 0.08  $\mu\text{H}/\text{ft}$  [ 0.26  $\mu\text{H}/\text{m}$  ]

0.16  $\mu\text{H}/\text{ft}$  [ 0.52  $\mu\text{H}/\text{m}$  ]

**Propagation Delay:** 1.49 ns/ft [ 4.89ns/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:** USA: CL2: 75°C

Canada: 80°C

**Flammability Rating:** USA: N.E.C. 725, CL2

Canada: FT1

\*\*RoHS compliant\*\* means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

UL File No.: E118773, Power Limited Circuit Cable: CL2

**3M**

Interconnect Solutions

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

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For technical, sales or ordering information call

800-225-5373

# 3M™ Pleated Foil Shielded Cable

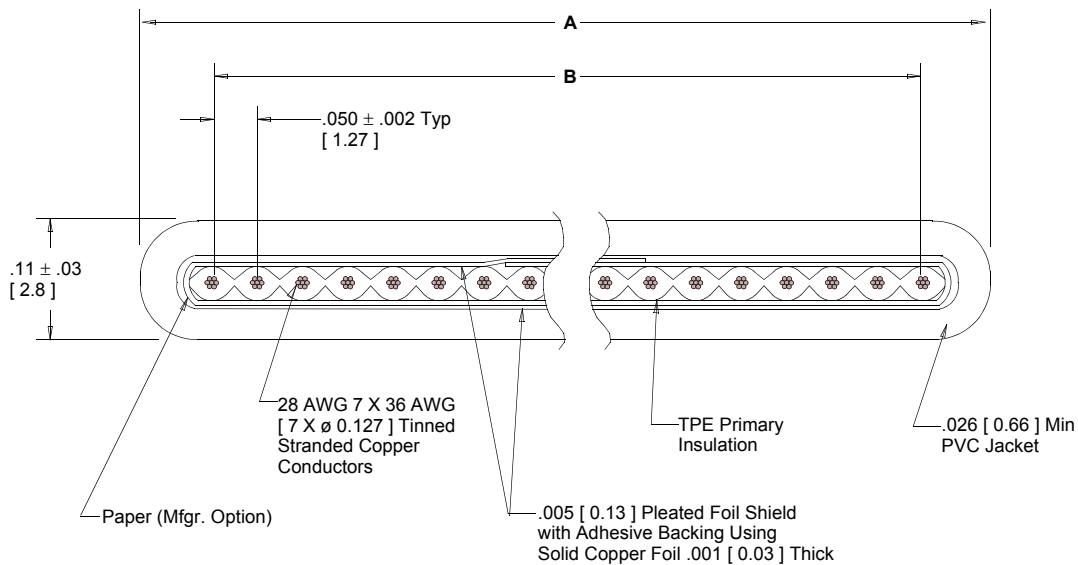
.050" 28 AWG Stranded, TPE Primary, PVC Jacket

90104 Series

Number of Conductors	3M Part Number	Dimension A ±.040	Dimension B
15	90104/15	.86 [ 21.8 ]	0.700 ± .007 [ 17.78 ]
20	90104/20	1.11 [ 28.2 ]	0.950 ± .011 [ 24.13 ]
25	90104/25	1.34 [ 34.0 ]	1.200 ± .011 [ 30.48 ]
26	90104/26	1.40 [ 35.6 ]	1.250 ± .011 [ 31.75 ]
30	90104/30	1.60 [ 40.6 ]	1.450 ± .011 [ 36.83 ]
34	90104/34	1.80 [ 45.7 ]	1.650 ± .015 [ 41.91 ]
36	90104/36	1.90 [ 48.3 ]	1.750 ± .015 [ 44.45 ]
37	90104/37	1.95 [ 49.5 ]	1.800 ± .015 [ 45.72 ]
40	90104/40	2.10 [ 53.4 ]	1.950 ± .015 [ 49.53 ]
50	90104/50	2.60 [ 66.0 ]	2.450 ± .015 [ 62.23 ]
60	90104/60	3.10 [ 78.7 ]	2.950 ± .015 [ 74.93 ]
64	90104/64	3.32 [ 84.3 ]	3.150 ± .015 [ 80.01 ]

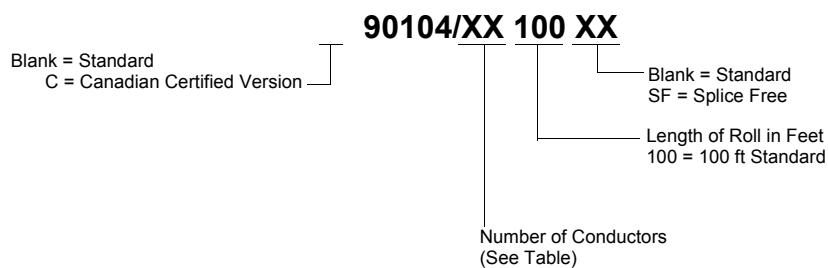
Inch [mm]			
Tolerance Unless Noted			
Inch	.0	.00	.000
	±.1	±.05	±.010

[ ] Dimensions for Reference only



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

## Ordering Information



Note: Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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## Important Notice

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Minimum 10%  
Post-Consumer Fiber

Printed in USA.

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