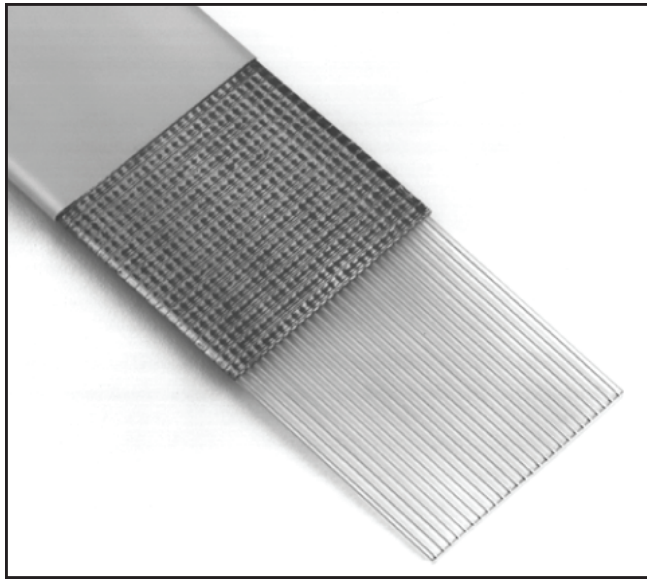


# 3M™ Pleated Foil Shielded Cable

.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

TS-0403-D  
Sheet 1 of 2

## 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 ]

<b>Characteristic Impedance:</b>	<b>Unbalanced</b>	<b>Balanced</b>
	53 Ω	110 Ω

<b>Capacitance:</b>	28.1 pF/ft [ 92.2 pF/m ]	13.4 pF/ft [ 44.0 pF/m ]
---------------------	--------------------------	--------------------------

<b>Inductance:</b>	0.08 μH/ft [ 0.26 μH/m ]	0.16 μH/ft [ 0.54 μH/m ]
--------------------	--------------------------	--------------------------

<b>Propagation Delay:</b>	1.49 ns/ft [ 4.89 ns/m ]	1.48 ns/ft [ 4.86 ns/m ]
---------------------------	--------------------------	--------------------------

<b>Velocity of Propagation:</b>	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

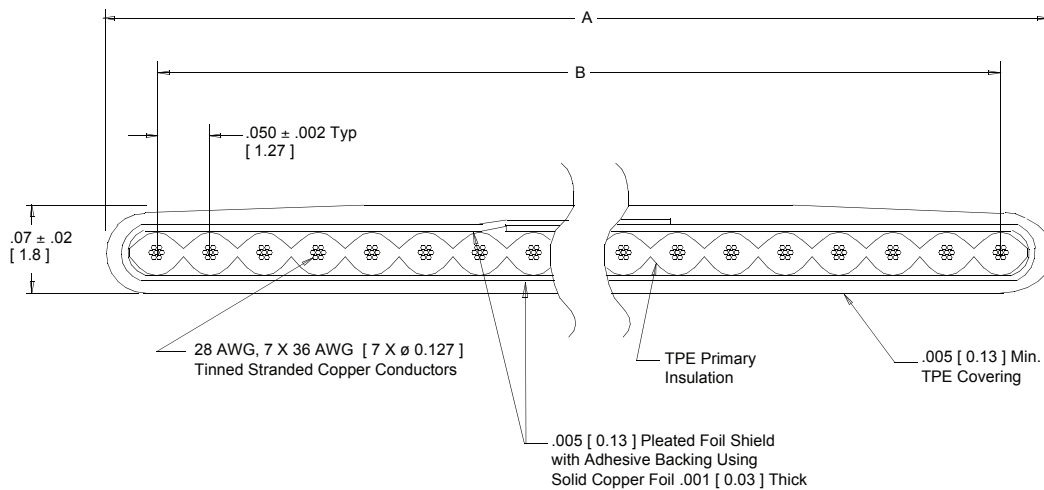
# 3M™ Pleated Foil Shielded Cable

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

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 ]

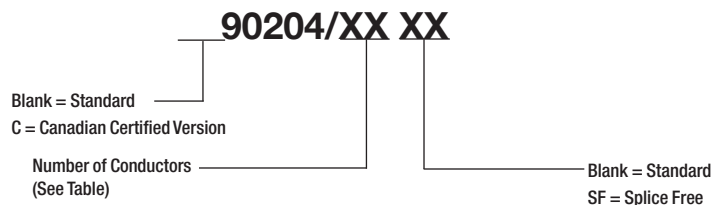


Inch [mm]			
Tolerance Unless Noted			
	.0	.00	.000
Inch	±.1	±.05	±.010

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.

TS-0403-D  
Sheet 2 of 2

**Important Notice**

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

**Warranty; Limited Remedy; Limited Liability.**

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

**3M Electronics Solutions Division**

6801 River Place Blvd.  
Austin, TX 78726-9000  
U.S.A.  
1-800-225-5373  
[www.3Mconnectors.com](http://www.3Mconnectors.com)

Please recycle. Printed in USA.  
© 3M 2012. All rights reserved.  
RIA-2217B-F

3M is a trademark of 3M Company.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[3M:](#)

[90204/50SF](#) [3448-89160](#) [3448-89126](#) [3448-89120](#) [3448-89140](#) [3448-89134](#) [3448-89150](#) [3448-89114](#) [3448-89110](#) [3448-89116](#) [3448-89144](#) [3448-89130](#) [3448-89124](#) [3448-89136](#) [7064-60B3TH](#) [90204/50-100](#) [90204/10](#)