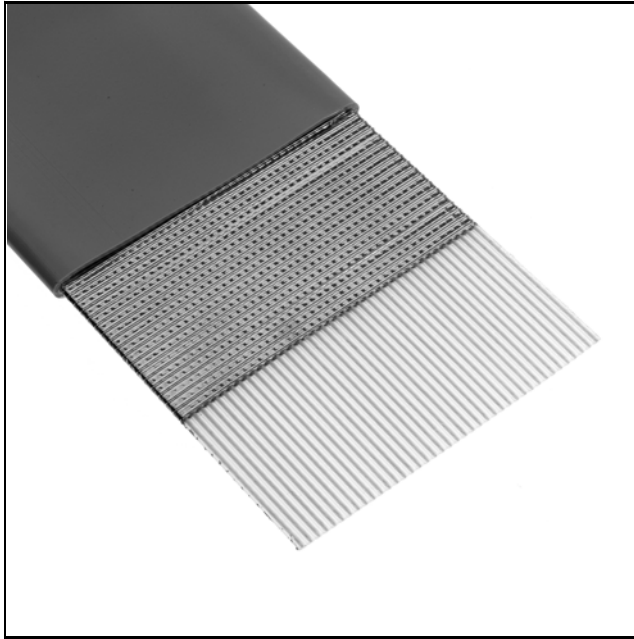


# 3M™ Pleated Foil Shielded Cable

.025" 30 AWG Solid, TPE Primary, PVC Jacket

90101 Series



- Compatible with IDC mass termination connectors
- Functions with applications requiring standard impedance of 100  $\Omega$  balanced (differential)
- Extremely low crosstalk, used in the all-signal mode to quadruple signal density as compared to standard .050 inch flat ribbon cable
- Solid pleated copper foil provides flexibility and 35 db average shielding effectiveness
- CL2 rated, rugged design and high reliability for peripheral applications
- RoHS\* Compliant

Date Modified: January 19, 2005

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Sheet 1 of 2

## Physical

### Jacket

Material: Polyvinyl Chloride (PVC)

Color: Gray

Primary Material: Thermoplastic Elastomer (TPE)

### Marking:

Standard:: (UL) CL2 75C 30 AWG 3M NU  
AWM II A/B 80C 150V FT1 EU <50V

Conductors: 30 AWG [ 0.254 ] Tinned Stranded Copper

Shielding: Solid, Pleated, Copper Foil

## Electrical

<b>Voltage Rating:</b>	USA: N.E.C. 725, CL2	Canada: 150V	EU: <50V
<b>Insulation Resistance:</b>	(Primary Cable) > $1 \times 10^{10} \Omega/10 \text{ ft. [ 3m ]}$		
	<b>Unbalanced</b>	<b>Balanced</b>	
<b>Characteristic Impedance:</b>	53 $\Omega$	104 $\Omega$	
<b>Capacitance:</b>	28.4 pF/ft (93.2 pF/m)	14.5 pF/ft (47.6 pF/m)	
<b>Inductance:</b>	.08 $\mu\text{H}/\text{ft}$ (0.26 $\mu\text{H}/\text{m}$ )	.16 $\mu\text{H}/\text{ft}$ (0.52 $\mu\text{H}/\text{m}$ )	
<b>Propagation Delay:</b>	1.52 ns/ft (4.99 ns/m)	1.51 ns/ft (4.95 ns/m)	
<b>Velocity of Propagation:</b>	67%	67%	

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:** CL2: 75°C      Canada: 80°C  
**Flammability Rating:** USA: N.E.C. 725, CL2      Canada: FT1

RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

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

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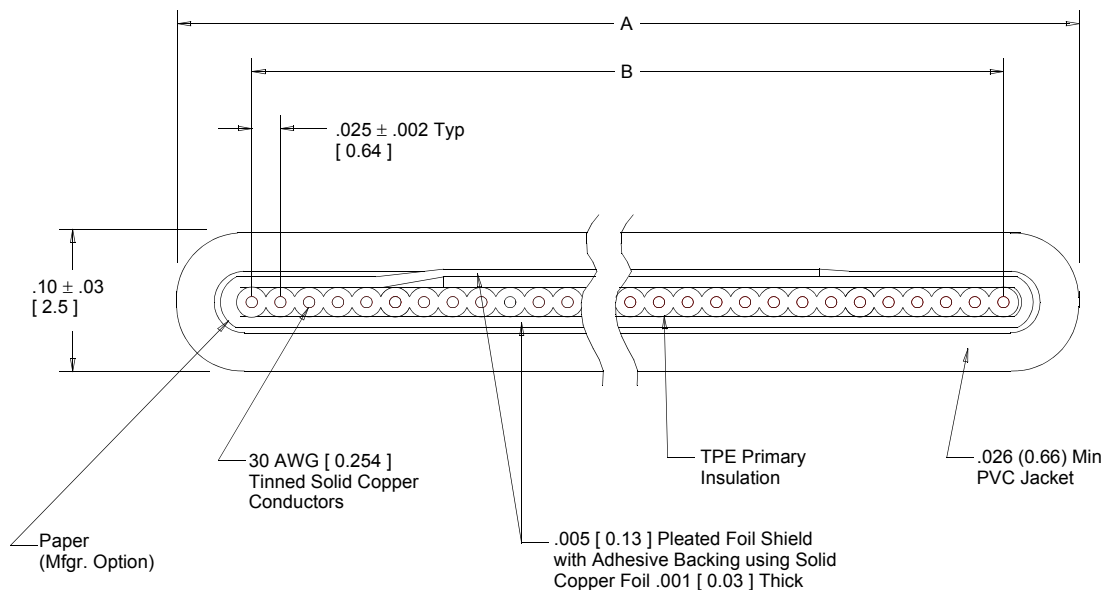


Number of Conductors	3M Part Number	Dimension A ± .030	Dimension B
20	90101/20	.60 [ 15.2 ]	0.475 ± .006 [ 12.07 ]
26	90101/26	.75 [ 19.1 ]	0.625 ± .006 [ 15.88 ]
36	90101/36	1.00 [ 25.4 ]	0.875 ± .009 [ 22.23 ]
40	90101/40	1.10 [ 27.9 ]	0.975 ± .009 [ 24.77 ]
50	90101/50	1.35 [ 34.3 ]	1.225 ± .009 [ 31.12 ]
68	90101/68	1.80 [ 45.7 ]	1.675 ± .012 [ 42.55 ]
80	90101/80	2.10 [ 53.3 ]	1.975 ± .015 [ 50.17 ]
100	90101/100	2.60 [ 66.0 ]	2.475 ± .017 [ 62.87 ]

**Inch  
[mm]**

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

[ ] Dimensions for Reference only



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

## Ordering Information

**90101/XX**

Number of Conductors  
(See Table)

Note: Standard lengths are 100 ft., 150 ft. and 300 ft. rolls. Please specify when ordering.

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Sheet 2 of 2

## Important Notice

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