

.050" Round, Shielded/Jacketed, Flat Cable

28 AWG Stranded, Mass-Term, PVC/PVC

3659 Series



- Round construction permits easier routing
- 28 AWG wire on .050 inch pitch permits mass termination to broad line of IDC connectors
- Continuous split/bond repeat allows for mass termination on 2.4 inch centers (approximate)
- Primary cable is zippable for branching or discrete terminations
- Meets external wiring requirements of National Electrical Code, Article 725 (CL2)
- UL listed for USA and Canadian markets
- Dual shielding provides 35 db average shielding effectiveness

Date Modified: July 29, 1999

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Physical

Jacket

Material: Polyvinyl Chloride (PVC)

Color: Black

Primary Material: PVC

Color: Gray

Marking

Standard: (UL) CL2 75C 28 AWG or AWM 20267 3M NU  AWM IIA/B 80C 300V FT1
EU <50V

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

Shielding: .001 [0.03] Thick Aluminum/Polyester Film Foil and 90% Coverage Tinned Copper Braid

Electrical

Voltage Rating: USA: N.E.C. 725, CL2 or AWM; 300V Canada: 300V EU: <50V

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

	Unbalanced	Balanced
Characteristic Impedance	62Ω	106 Ω
Capacitance	27.7 pF/ft. [90.88 pF/m]	15.2 pF/ft. [49.9 pF/m]
Inductance	.13 μH/ft. [0.43 μH/m]	.20 μH/ft. [0.66 μH/m]
Propagation Delay	1.72 ns/ft. [5.64 ns/m]	1.62 ns/ft. [5.32 ns/m]
Velocity of Propagation	59%	62%

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 Max or AWM; -20°C to +80°C Canada: 80°C

Flammability Rating: USA: N.E.C. 725, CL2 Canada: FTI

UL File No.: E118773, Power Limited Circuit Cable: CL2 (or AWM Style 20267)

3M Interconnect Solutions Division

6801 River Place Blvd.
Austin, TX 78726-9000

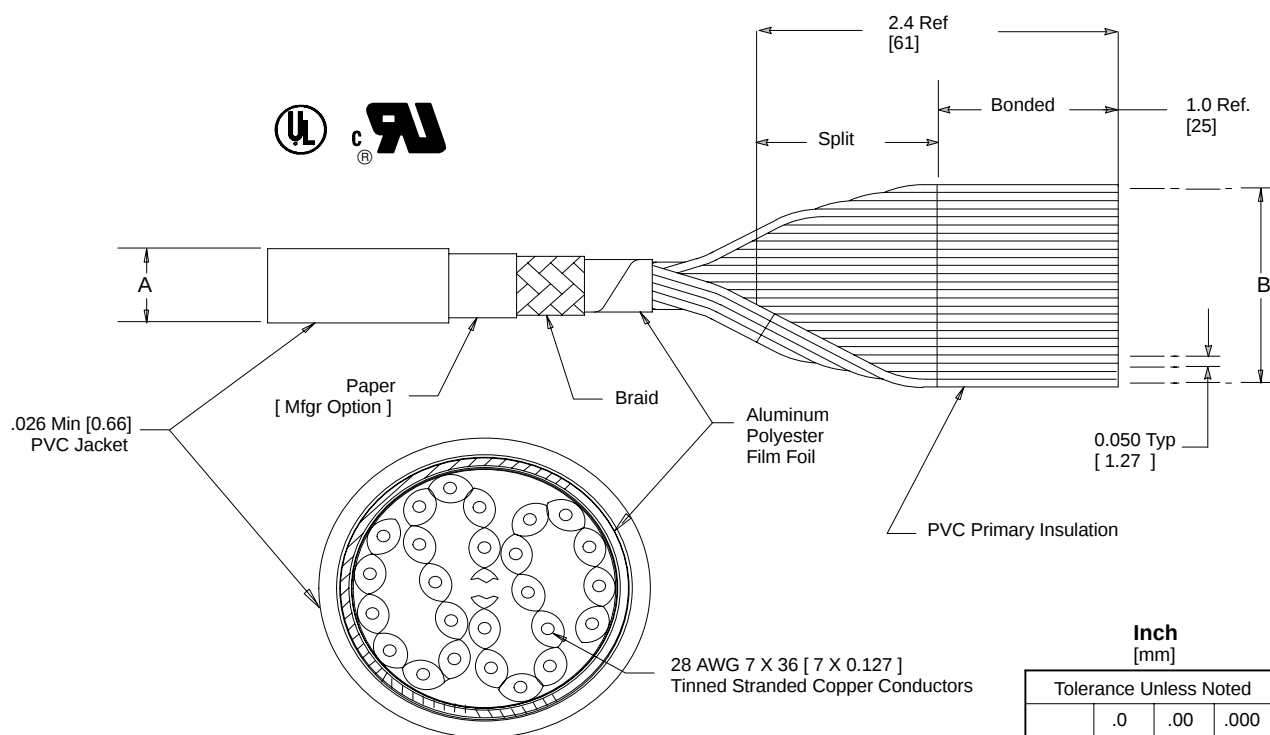
For technical, sales or ordering information call
800-225-5373

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Number of Conductors	3M Part Number	Dimension A $\pm .03$	Dimension B Ref (See Note 2)
09	3659/09	0.27 [6.9]	0.40 [10.2]
10	3659/10	0.27 [6.9]	0.45 [11.4]
14	3659/14	0.31 [7.9]	0.65 [16.5]
15	3659/15	0.31 [7.9]	0.70 [17.8]
16	3659/16	0.31 [7.9]	0.75 [19.1]
20	3659/20	0.34 [8.6]	0.95 [24.1]
24	3659/24	0.37 [9.4]	1.15 [29.2]
25	3659/25	0.37 [9.4]	1.20 [30.5]
26	3659/26	0.37 [9.4]	1.25 [31.8]
34	3659/34	0.41 [10.4]	1.65 [41.9]
36	3659/36	0.43 [10.9]	1.75 [44.5]
37	3659/37	0.43 [10.9]	1.80 [45.7]
40	3659/40	0.43 [10.9]	1.95 [49.5]
50	3659/50	0.48 [12.2]	2.45 [62.2]
60	3659/60	0.51 [13.0]	2.95 [74.9]
64	3659/64	0.54 [13.7]	3.15 [80.0]



Notes:

1. Red marking on one edge of primary cable designates wire #1.
2. Dimension B pertains to bonded area only.

Inch
[mm]

Tolerance Unless Noted			
	.0	.00	.000
Inch	$\pm .1$	$\pm .05$	$\pm .010$

[] Dimensions for Reference only

Ordering Information

3659X/XX

Jacket Color Options
Blank = "Standard" Black Jacket
C = "Special" Cream Jacket
G = "Special" Gray Jacket
L = "Special" Light Olive Jacket

Number of Conductors
(See Table)

Note: Available in standard length of 100 or 300 ft/roll, please specify when ordering.

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