3M™ Round, Jacketed, Flat Cable

.025" 30 AWG Stranded, Mass-Term, PVC/PVC 3896 Series

- Round construction permits easier routing
- 30 AWG wire on .025 inch centers permits mass termination
- Continuous split/bond allows for mass termination on 2.4 inch centers (approximate)
- Close spacing permits higher signal density
- Primary cable is zippable for branching or discrete terminations
- PVC insulation provides excellent flexibility
- Recommended for use with 3M™ Tripolarized Wiremount Socket 82XXX-600X, .050" x .100"; 3M™ Mini D Ribbon (MDR) Wiremount Plug 101XX-8X00EE, .050"; and 3M™ Pak 50 IDC Sockets P25E-XXXs-XXX
- See Regulatory Information Appendix (RIA for chemical compliance information (RIA E1 & C1 apply)

Date Modified: May 14, 2009

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Physical

Jacket Material: Polyvinyl Chloride (PVC)
Jacket Color: Black
Primary Material: Polyvinyl Chloride (PVC)
Color Gray
Marking Standard: UL AWM 20596 105C 30V VW1 3M NU
Conductors: 30 AWG, 7 × 38 AWG [7 × Ø 0.102] Tinned Stranded Copper
Inner Wrap: Polyester Film

Electrical

Voltage Rating: USA: 30V EU: <50V
Insulation Resistance: (Primary Cable) >1 x 10^{10}Ω /10 ft [3 m]

	Unbalanced	Balanced
Characteristic Impedance:	73 Ω	121 Ω
Capacitance:	20.8 pF/ft [68.2 pF/m]	12.0 pF/ft [39.4 pF/m]
Inductance:	0.11 µH/ft [0.36 µH/m]	0.18 µH/ft [0.57 µH/m]
Propagation Delay:	1.51 ns/ft [4.95 ns/m]	1.45 ns/ft [4.76 ns/m]
Velocity of Propagation:	67%	70%

Note: Unbalanced is measured between ground-signal-ground conductors.Balanced is measured between conductors within a pair.

Environmental

Temperature Rating: -20°C to + 105°C
Flammability Rating: USA: VW-1 Canada: FT1

UL File No.: E42769, Style No.: 20596

3M is a trademark of 3M Company.
For technical, sales or ordering information call
800-225-5373

3M™ Round, Jacketed, Flat Cable

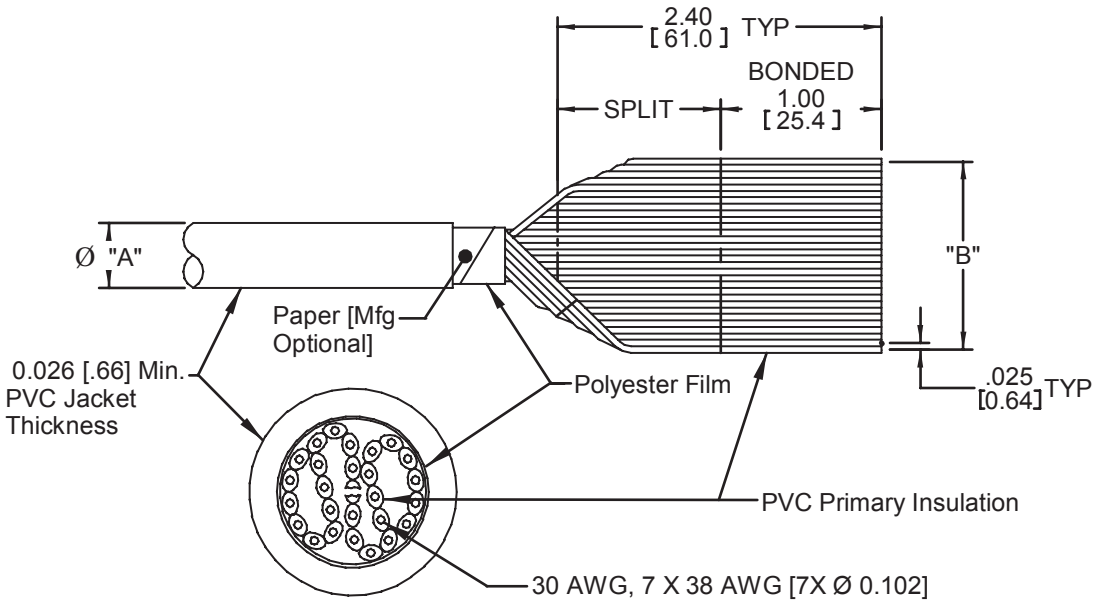
.025" 30 AWG Stranded, Mass-Term, PVC/PVC — 3896 Series

Inch
[Imm]

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

[ ] Dimensions for Reference Only

Number of Conductors	3M Part Number	Diameter A ± .03	Dimension B (See Note 2)
20	3896/20	0.26 [6.6]	0.475 +/- .004 [12.70]
26	3896/26	0.27 [6.9]	0.625 +/- .004 [15.88]
30	3896/30	0.27 [6.9]	0.725 +/- .006 [18.42]
32	3896/32	0.27 [6.9]	0.775 +/- .006 [19.69]
34	3896/34	0.27 [6.9]	0.825 +/- .006 [20.96]
36	3896/36	0.27 [6.9]	0.875 +/- .006 [22.23]
40	3896/40	0.30 [7.6]	0.975 +/- .006 [24.77]
50	3896/50	0.33 [8.4]	1.225 +/- .006 [31.12]
52	3896/52	0.33 [8.4]	1.275 +/- .009 [32.39]
60	3896/60	0.37 [9.4]	1.475 +/- .009 [37.47]
68	3896/68	0.37 [9.4]	1.675 +/- .009 [42.55]
80	3896/80	0.39 [9.9]	1.975 +/- .011 [50.17]
100	3896/100	0.44 [11.2]	2.475 +/- .025 [62.87]



Notes:

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

Ordering Information

3896/XX XX XX

- Number of Conductors (See Table)
- Blank = Standard, Repeating Split/Bonded Wires; SO = Continuously Bonded Wire (No Split)
- Blank = Standard; SF = Splice Free

Note: Available in standard 275 ft roll length. Contact 3M for availability of additional conductor counts and/or custom roll lengths.

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Sheet 2 of 2

3M
Electronic Solutions Division
Interconnect Solutions
http://www.3M.com/interconnects/

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Regulatory Information Appendix

3M Electronic Solutions Division/Interconnect

EUROPE

Appendix E1: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.
This product is RoHS Compliant 2005/95/EC.
"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

Appendix E2: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.
This product contains lead in the compliant pin area in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/747/EC.
"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

Appendix E3: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment as amended by Commission Decision 2005/618/EC.
This product contains lead in the solder tail area in excess of the maximum concentration value allowed.
Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

Appendix E4: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC, as amended by EU Commission Decision 2005/717/EC, as amended by EU Court of Justice Decision 2008/C 116/04
This product contains decaBDE in the insulating material in excess of the maximum concentration allowed for finished products subject to EU RoHS that are placed on the EU market after June 30, 2008.
Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

Appendix E5: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

This product contains lead in excess of the maximum concentration value allowed but is compliant by exemption under Item 6 of the Annex to the Directive.

"RoHS Compliant 2005/95/EC" means that the product or part ("Product") does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

CHINA

Appendix C1: China RoHS

Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.
This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, 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: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the Warranty stated below.

Appendix C2: China RoHS

Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.
This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical reference in the symbol above should not be construed as a representation regarding the product's life or an extension of a product warranty. The product warranty is stated below. In the event any product is proven not to conform with 3M's Regulatory Information Appendix, then 3M's entire liability and Buyer's exclusive remedy will be in accordance with the product Warranty stated below.

产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

部件名称 (Part or Component Name)	有毒有害物质或元素 (Hazardous Substances or Elements)					
	铅(Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
端子镀层(contact plating)	×	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.)
×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)

Appendix C3: China RoHS

Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers (excluding decaBDE); or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's best knowledge and belief based upon information provided by third party suppliers to 3M.

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产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

部件名称 (Part or Component Name)	有毒有害物质或元素 (Hazardous Substances or Elements)					
	铅(Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
合金(Metal alloy)	×	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.)
×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)

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Warranty; Limited Remedy; Limited Liability.

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