

PRODUCT DESCRIPTION

Thomas & Betts flat cable provides the means to reduce mass and weight in flexible wiring assemblies. Available with PVC, TPE or FEP insulation, the cable is extruded to provide precise and uniform alignment of the conductor spacing.

DESIGN ADVANTAGES

- Extruded PVC, TPE or FEP insulation for precise conductor spacing.
- Polarizing stripe allows easy identification of number one circuit even in twisted or irregularly curved applications.
- Thomas & Betts cable cutters and IDC termination tooling are matched to the cable tolerances to provide uniform results and trouble-free, high performance fine pitch cable assemblies.
- Available in standard .025", .050", and spread pitch configurations.
- Available in various gauge wire.
- Available in ground plane, high flex, color-coded, round to flat, twisted pair, and jacketed configurations.

FLAT AND ROUND CABLE



Fine Pitch (.025")

Flat Cable:

136	PVC, 30 AWG, Solid	97
137	PVC, 30 AWG, Stranded	98
131	TPE, 30 AWG, Solid	99
132	TPE, 30 AWG, Stranded	100
140	FEP, 32 AWG, Stranded	101
141	FEP, 32 AWG, Solid	102
188	PVC Jacketed/Shielded, 30 AWG	103
198	PVC Ground Plane, 30 AWG	104

Round Cable:

302	PVC Shielded—Round	105
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Prepared Cable:

136-xxx-0100	Transition Cable, Single End	106
136-xxx-0100D	Transition Cable, Double End	107

Standard Pitch (.050")

Flat Cable:

171	PVC, 28 AWG, Stranded	108
173	PVC, 28 AWG, Solid	109
179	PVC, 26 AWG, Stranded	110
177	TPE, 28 AWG, Stranded	111
181	FEP, 28 AWG, Stranded	112
185	High Flex, PVC, Stranded	113
174	PVC Jacketed, 28 AWG	114
187	PVC Jacketed/Shielded	115
196	Ground Plane, 28 AWG	116
200	PVC Twisted Pair, Flat	117
200/201	PVC Color Coded (28/26 AWG)	118

Round Cable:

300/301	28 AWG, Shielded/Non-shielded	119
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Prepared Cable:

203/204	Round to Flat, 28 AWG	120
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.025" PITCH FLAT CABLE 136 SERIES (30 AWG SOLID PVC)



LL53375 E41651

PHYSICAL PROPERTIES

INSULATION MATERIAL: Flexible PVC
COLOR: Blue/Grey
CONDUCTORS: 30 AWG, solid bare copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms
INSULATION RESISTANCE: $>10^{10}$ Ohms
IMPEDANCE: 80 Ohms
CAPACITANCE @ 1 MHz: 62.3 pF/m (19.0 pF/ft.)
INDUCTANCE @ 1 MHz: .49 μ H/m (.15 μ H/ft.)
PROPAGATION DELAY: 5.25 nSec/m (1.60 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -20° C to 105° C

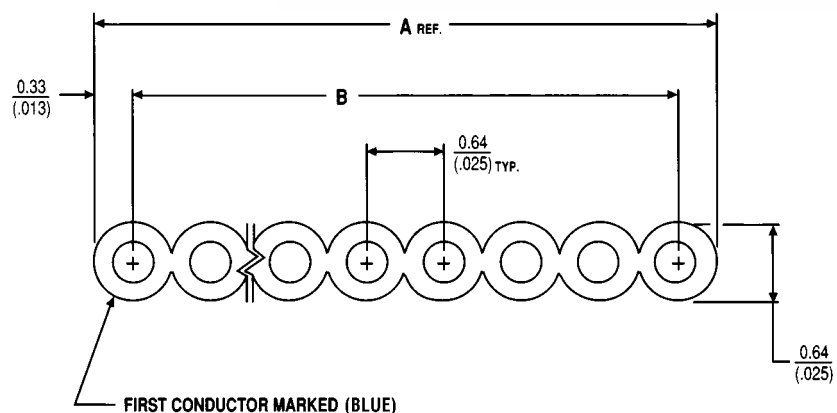
APPLICATION TOOLING

CABLE CUTTER: 779-5030M

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels.
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

UL Style No. 2678



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	136-020	12.70 (.500)	12.07 (.475)
26	136-026	16.51 (.650)	15.88 (.625)
30	136-030	19.05 (.750)	18.42 (.725)
34	136-034	21.59 (.850)	20.96 (.825)
40	136-040	25.40 (1.000)	24.77 (.975)
50	136-050	31.75 (1.250)	31.12 (1.225)
60	136-060	38.10 (1.500)	37.47 (1.475)
68	136-068	43.18 (1.700)	42.55 (1.675)
80	136-080	50.80 (2.000)	50.17 (1.975)
100	136-100	63.50 (2.500)	62.87 (2.475)
120	136-120	76.20 (3.000)	75.57 (2.975)

.025" PITCH FLAT CABLE 137 SERIES (30 AWG STRANDED PVC)



LL53375 E41651

PHYSICAL PROPERTIES

INSULATION MATERIAL: Flexible PVC
COLOR: Blue/Grey
CONDUCTORS: 30 AWG, 7/38 tinned, stranded copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms
INSULATION RESISTANCE: $>10^{10}$ Ohms
IMPEDANCE: 70 Ohms
CAPACITANCE @ 1 MHz: 82.0 pF/m (25.0 pF/ft.)
INDUCTANCE @ 1 MHz: .46 μ H/m (.14 μ H/ft.)
PROPAGATION DELAY: 5.08 nSec/m (1.55 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -20° C to 105° C

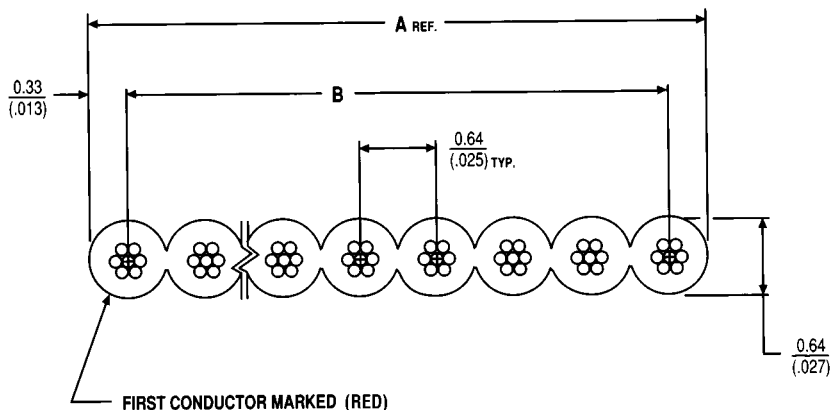
APPLICATION TOOLING

CABLE CUTTER: 779-5030M

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels.
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

UL Style No. 2678



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	137-020	12.70 (.500)	12.07 (.475)
26	137-026	16.51 (.650)	15.88 (.625)
30	137-030	19.05 (.750)	18.42 (.725)
34	137-034	21.59 (.850)	20.96 (.825)
40	137-040	25.40 (1.000)	24.77 (.975)
50	137-050	31.75 (1.250)	31.12 (1.225)
60	137-060	38.10 (1.500)	37.47 (1.475)
68	137-068	43.18 (1.700)	42.55 (1.675)
80	137-080	50.80 (2.000)	50.17 (1.975)
100	137-100	63.50 (2.500)	62.87 (2.475)
120	137-120	76.2 (3.000)	75.57 (2.975)

.025" PITCH FLAT CABLE 131 SERIES (30 AWG SOLID (TPE))



PHYSICAL PROPERTIES

INSULATION MATERIAL: Thermoplastic Elastomer (TPE)
COLOR: White
CONDUCTORS: 30 AWG Solid

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms
INSULATION RESISTANCE: $>5 \times 10^{10}$ Ohms/FT
IMPEDANCE: 88 Ohms
CAPACITANCE @ 1 MHz: 71.8 pF/m (16.5 pF/ft.)
INDUCTANCE @ 1 MHz: .502 μ H/m (.153 μ H/ft.)
PROPAGATION DELAY: 4.97 ns/m (1.410 ns/ft.)
RISE TIME: 5
NEAR END %: 1.9
FAR END %: 3.1

ENVIRONMENTAL PROPERTIES

TEMPERATURE: -20° C to +105° C
(-4° F to +221° F)

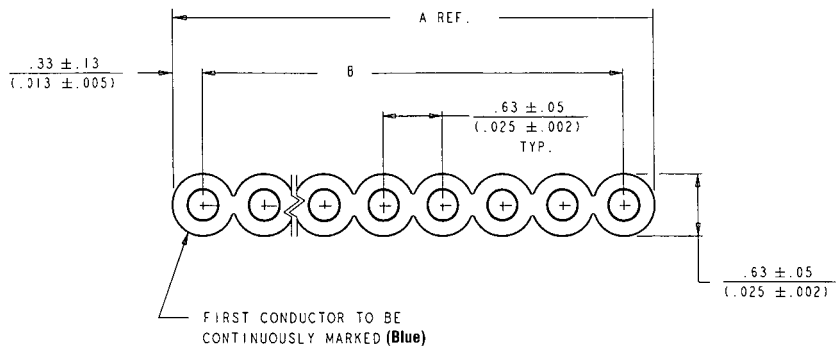
APPLICATION TOOLING

CABLE CUTTER: 779-5030M

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels.
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

UL Style No. 20650



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	131-020	12.70 (.500)	12.07 (.475)
26	131-026	16.51 (.650)	15.88 (.625)
30	131-030	19.05 (.750)	18.42 (.725)
34	131-034	21.59 (.850)	20.96 (.825)
40	131-040	25.40 (1.000)	24.77 (.975)
50	131-050	31.75 (1.250)	31.12 (1.225)
60	131-060	38.10 (1.500)	37.47 (1.475)
68	131-068	43.18 (1.700)	42.55 (1.675)
80	131-080	50.80 (2.000)	50.17 (1.975)
100	131-100	63.50 (2.500)	62.87 (2.475)
120	131-120	76.20 (3.000)	75.57 (2.975)

.025" PITCH FLAT CABLE 132 SERIES (30 AWG STRANDED (TPE))



LR53375 E41651

PHYSICAL PROPERTIES

INSULATION MATERIAL: Thermoplastic Elastomer (TPE)

COLOR: White

CONDUCTORS: 30 AWG (7/38) Tinned Stranded Copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms

INSULATION RESISTANCE: $>1 \times 10^{12}$ Ohms/FT

IMPEDANCE: 80 Ohms

CAPACITANCE @ 1 MHz: 65.61 pF/m (17.8 pF/ft.)

INDUCTANCE @ 1 MHz: .433 μ H/m (.132 μ H/ft.)

PROPAGATION DELAY: 4.93 ns/m (1.47 ns/ft.)

RISE TIME: 5

NEAR END %: 1.9

FAR END %: 3.1

ENVIRONMENTAL PROPERTIES

TEMPERATURE: -20° C to +105° C

(-4° F to +221° F)

APPLICATION TOOLING

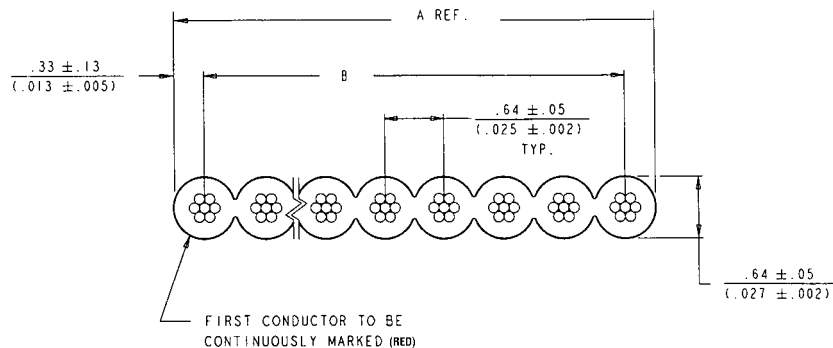
CABLE CUTTER: 779-5030M

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels.

OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

UL Style No. 20650



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	132-020	12.70 (.500)	12.07 (.475)
26	132-026	16.51 (.650)	15.88 (.625)
30	132-030	19.05 (.750)	18.42 (.725)
34	132-034	21.59 (.850)	20.96 (.825)
40	132-040	25.40 (1.000)	24.77 (.975)
50	132-050	31.75 (1.250)	31.12 (1.225)
60	132-060	38.10 (1.500)	37.47 (1.475)
68	132-068	43.18 (1.700)	42.55 (1.675)
80	132-080	50.80 (2.000)	50.17 (1.975)
100	132-100	63.50 (2.500)	62.87 (2.475)
120	132-120	76.20 (3.000)	75.57 (2.975)

.025" PITCH FLAT CABLE 140 SERIES (32 AWG STRANDED TEFLON®)



PHYSICAL PROPERTIES

INSULATION MATERIAL: Extruded (Teflon) FEP
 COLOR: Natural
 CONDUCTORS: 32 AWG, 7/40 silver plated, stranded copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms
 INSULATION RESISTANCE: $>10^{11}$ Ohms
 IMPEDANCE: 95 Ohms
 CAPACITANCE @ 1 MHz: 42.6 pF/m (13.0 pF/ft.)
 INDUCTANCE @ 1 MHz: .52 μ H/m (.16 μ H/ft.)
 PROPOGATION DELAY: 4.33 nSec/m (1.32 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 200° C

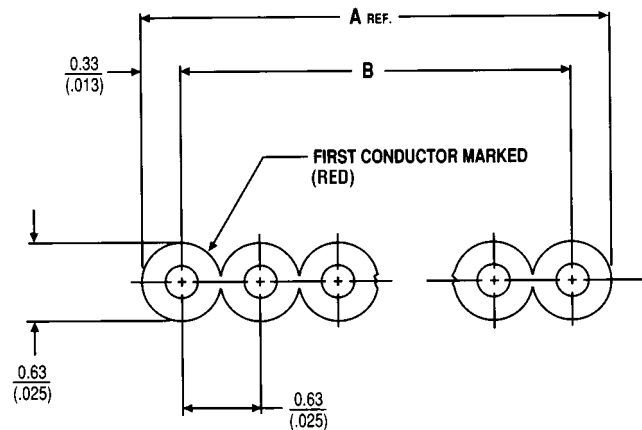
APPLICATION TOOLING

CABLE CUTTER: 779-5030M

PACKAGING

STANDARD: Splice free 100 foot rolls

UL Style No. 20726



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	140-020	12.70 (.500)	12.07 (.475)
26	140-026	16.51 (.650)	15.88 (.625)
30	140-030	19.05 (.750)	18.41 (.725)
40	140-040	25.40 (1.000)	24.76 (.975)
50	140-050	31.75 (1.250)	31.11 (1.225)
68	140-068	43.18 (1.700)	42.54 (1.675)
80	140-080	50.80 (2.000)	50.16 (1.975)
100	140-100	63.50 (2.500)	62.86 (2.475)

.025" PITCH FLAT CABLE 141 SERIES (30 AWG SOLID TEFLON®)



LL53375 E41651

PHYSICAL PROPERTIES

INSULATION MATERIAL: Extruded Teflon FEP
COLOR: Natural
CONDUCTORS: 30 AWG, silver plated, solid copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms
INSULATION RESISTANCE: >10¹¹ Ohms
IMPEDANCE: 90 Ohms
CAPACITANCE @ 1 MHz: 45.9 pF/m (14.0 pF/ft.)
INDUCTANCE @ 1 MHz: .48 μH/m (.14 μH/ft.)
PROPAGATION DELAY: 4.30 nSec/m (1.32 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 150° C

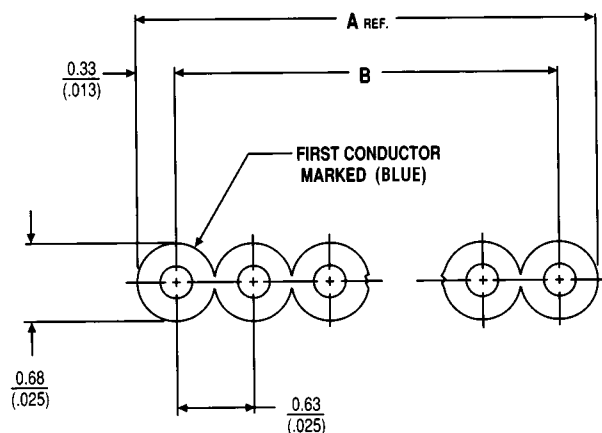
APPLICATION TOOLING

CABLE CUTTER: 779-5030M

PACKAGING

STANDARD: Splice free 100 foot rolls

UL Style No. 20726



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	141-020	12.70 (.500)	12.07 (.475)
26	141-026	16.51 (.650)	15.88 (.625)
30	141-030	19.05 (.750)	18.41 (.725)
40	141-040	25.40 (1.000)	24.76 (.975)
50	141-050	31.75 (1.250)	31.11 (1.225)
68	141-068	43.18 (1.700)	42.54 (1.675)
80	141-080	50.80 (2.000)	50.16 (1.975)
100	141-100	63.50 (2.500)	62.86 (2.475)

.025" PITCH JACKETED, SHIELDED FLAT CABLE 188 SERIES (30 AWG SOLID PVC)



PHYSICAL PROPERTIES

INSULATION MATERIAL, CABLE: Flexible PVC
 COLOR, CABLE: Blue/Grey
 INSULATION MATERIAL, JACKET: Flexible PVC
 COLOR, JACKET: Black
 CONDUCTORS: 30 AWG, solid bare copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms
 INSULATION RESISTANCE: $>10^{10}$ Ohms/3m (10 ft.)
 IMPEDANCE (GSG SHIELDED GROUND): 55 Ohms
 CAPACITANCE @ 1 MHz: 98.4 pF/m (30.0 pF/ft.)
 INDUCTANCE @ 1 MHz: .39 μ H/m (.12 μ H/ft.)
 PROPOGATION DELAY: 5.09 nSec/m (1.55 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -20° C to 105° C

APPLICATION TOOLING

CABLE CUTTER: 779-5030M

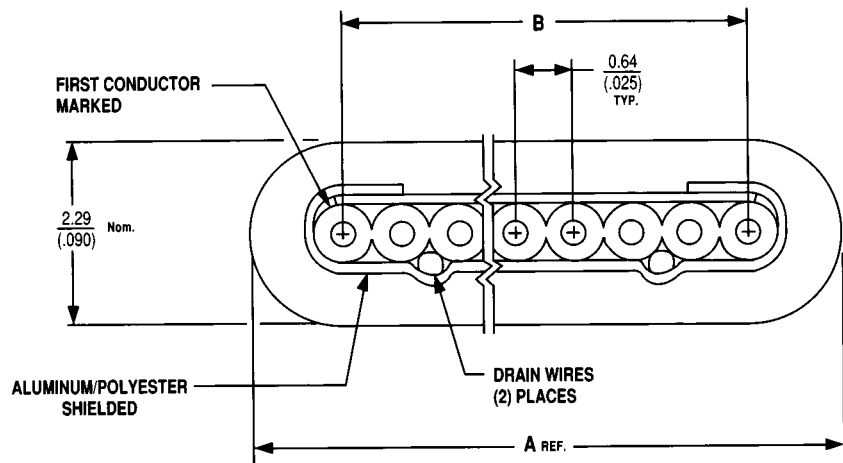
FEATURES

- CSA certified AWM for external wiring
- Foil shielding provides EMI/RFI protection
- Jacketing provides cable durability

PACKAGING

STANDARD: Splice free 100 foot rolls

UL Style No. 2912



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	188-020	12.70 (.500)	12.07 (.475)
26	188-026	16.51 (.650)	15.88 (.625)
40	188-040	25.40 (1.000)	24.77 (.975)
50	188-050	31.75 (1.250)	31.12 (1.225)
60	188-060	38.10 (1.500)	37.47 (1.475)
68	188-068	43.18 (1.700)	42.55 (1.675)
80	188-080	50.80 (2.000)	50.17 (1.975)
100	188-100	63.50 (2.500)	62.87 (2.475)

.025" PITCH GROUND PLANE FLAT CABLE 198 SERIES (30 AWG SOLID PVC)



PHYSICAL PROPERTIES

INSULATION MATERIAL: Flexible PVC
 COLOR: Blue/Grey
 CONDUCTORS AND PLANE WIRE: 30 AWG, solid bare copper
 GROUND PLANE: Expanded copper mesh, .13 (.005) thick

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
 INSULATION RESISTANCE: $>10^{10}$ Ohms/3m (10 ft.)
 IMPEDANCE (GSG SHIELDED GROUND): 65 Ohms
 CAPACITANCE @ 1 MHz: 98.4 pF/m (30.0 pF/ft.)
 INDUCTANCE @ 1 MHz: .46 μ H/m (.14 μ H/ft.)
 PROPOGATION DELAY: 5.41 nSec/m (1.65 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -20° C to 105° C

APPLICATION TOOLING

CABLE CUTTER: 779-5030M

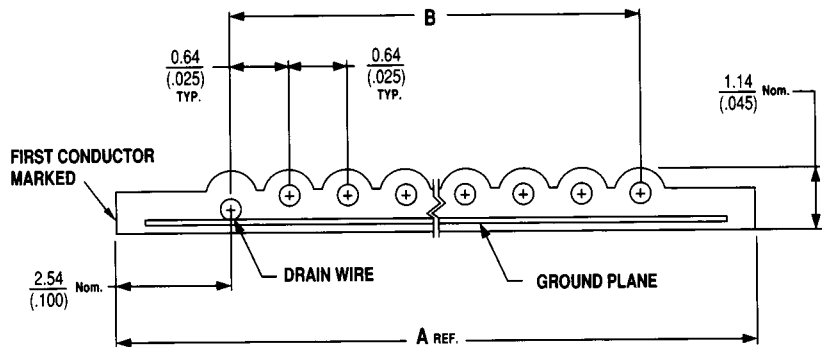
FEATURES

- Ground plane structure provides increased signal density and improved transmission characteristics
- Ground plane can be removed by hand for easy connector application

PACKAGING

STANDARD: Splice free 100 foot rolls

UL Style No. 2682



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
20	198-020	12.70 (.500)	12.07 (.475)
26	198-026	16.51 (.650)	15.88 (.625)
40	198-040	25.40 (1.000)	24.77 (.975)
50	198-050	31.75 (1.250)	31.12 (1.225)
60	198-060	38.10 (1.500)	37.47 (1.475)
68	198-068	43.18 (1.700)	42.55 (1.675)
80	198-080	50.80 (2.000)	50.17 (1.975)
100	198-100	63.50 (2.500)	62.87 (2.475)

**.025" PITCH ROUND CABLE
(FOIL/ BRAID/ SHIELD)
302 SERIES
(30 AWG SOLID)**



LL53375 E41651

PHYSICAL PROPERTIES

INSULATION MATERIAL
CABLE: Flexible PVC
COLOR, CABLE: Blue/gray
JACKET: Flexible PVC
COLOR, JACKET: Black
CONDUCTORS: 30 AWG, solid bare copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V ms
INSULATION RESISTANCE: > 10 Ohms/3m (10 ft.)
IMPEDANCE @ 1MHZ: 88.6 pF/m (27.0 pF/ft.)
INDUCTANCE @ 1MHZ: .39 uH/m (.12 uH/ft.)
PROPAGATION DELAY: 5.25 nSec/m (1.60 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -20° C to 105° C

APPLICATION TOOLING

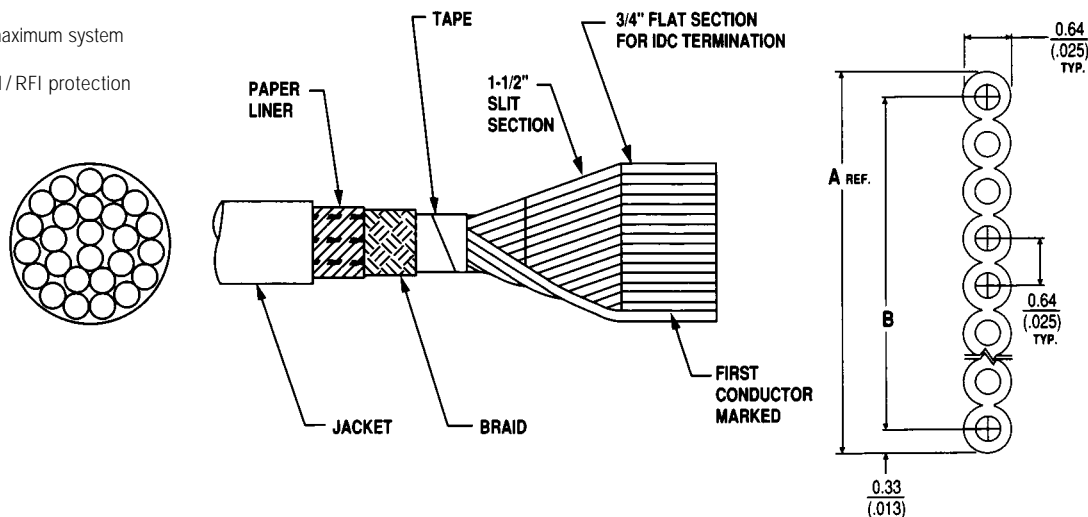
CABLE CUTTER: 779-5030M
Packaged on splice-free 100' rolls.

FEATURES

- PVC jacket prevents damage in external applications
- Round cross-section allows maximum system airflow
- Shielding braid provides EMI / RFI protection



Typical Application Shown for Reference.



Ordering Information		Reference	
NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS	
		A	B
26	302-026	16.51 (.650)	15.88 (.625)
40	302-040	25.40 (1.000)	24.77 (.975)
50	302-050	31.75 (1.250)	31.12 (1.225)
60	302-060	38.10 (1.500)	37.47 (1.475)
68	302-068	43.18 (1.700)	42.55 (1.675)
80	302-080	50.80 (2.000)	50.17 (1.975)
100	302-100	63.50 (2.500)	62.87 (2.475)

**TRANSITION CABLE
ONE SPREAD END
.025" TO .050"
(30 AWG SOLID PVC)**



LL58162 E47817

PHYSICAL PROPERTIES

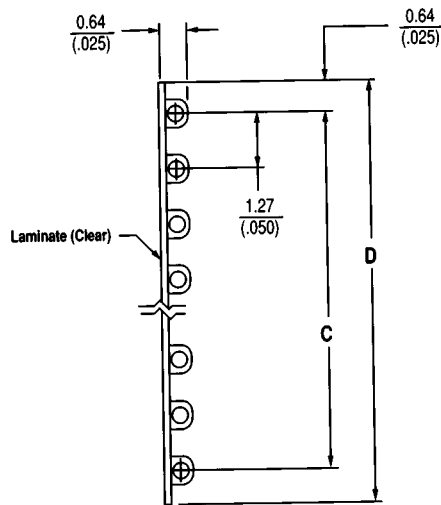
INSULATION MATERIAL: Flexible PVC
COLOR: Blue/Grey
CONDUCTORS: 30 AWG, solid bare copper

ELECTRICAL PROPERTIES

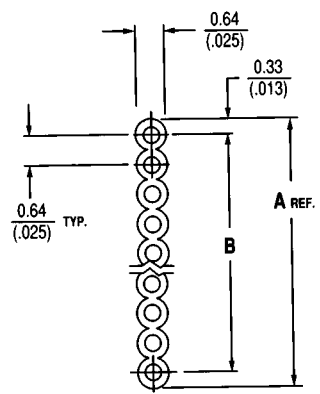
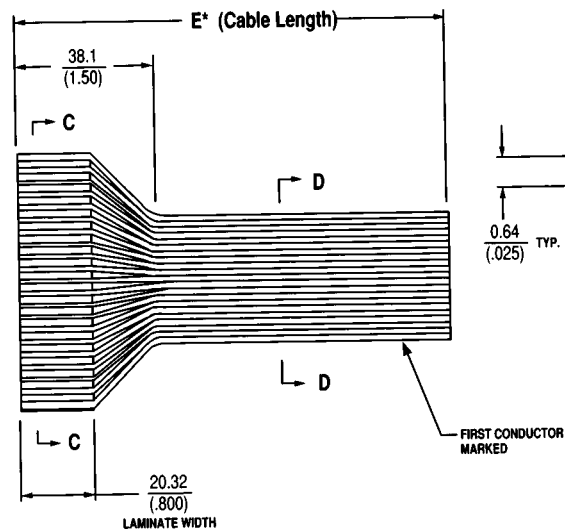
VOLTAGE RATING: 150V rms
INSULATION RESISTANCE: $>10^{10}$ Ohms
IMPEDANCE: 80 Ohms
CAPACITANCE @ 1 MHz: 62.3 pF/m (19.0 pF/ft.)
INDUCTANCE @ 1 MHz: .49 μ H/m (.15 μ H/ft.)
PROPAGATION DELAY: 5.25 nSec/m (1.60 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -20° C to 105° C



**Section C-C
(Enlarged)**



**Section D-D
(Enlarged)**

Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS				
		A	B	C	D	E*
20	136-020-0100	12.70 (.500)	12.07 (.475)	24.13 (.950)	25.40 (1.000)	305 (12.0)
26	136-026-0100	16.51 (.650)	15.88 (.625)	31.75 (1.250)	33.02 (1.300)	305 (12.0)
30	136-030-0100	19.05 (.750)	18.42 (.725)	36.83 (1.450)	38.10 (1.500)	305 (12.0)
34	136-034-0100	21.59 (.850)	20.96 (.825)	41.91 (1.650)	43.18 (1.700)	305 (12.0)
40	136-040-0100	25.40 (1.000)	24.77 (.975)	49.53 (1.950)	50.80 (2.000)	305 (12.0)
50	136-050-0100	31.75 (1.250)	31.12 (1.225)	62.23 (2.450)	63.50 (2.500)	305 (12.0)
60	136-060-0100	38.10 (1.500)	37.47 (1.475)	74.93 (2.950)	76.20 (3.000)	305 (12.0)

* Other custom cable lengths available on request.

TRANSITION CABLE TWO SPREAD ENDS .050" TO .025" TO .050" (30 AWG SOLID PVC)



LL58162 E47817

PHYSICAL PROPERTIES

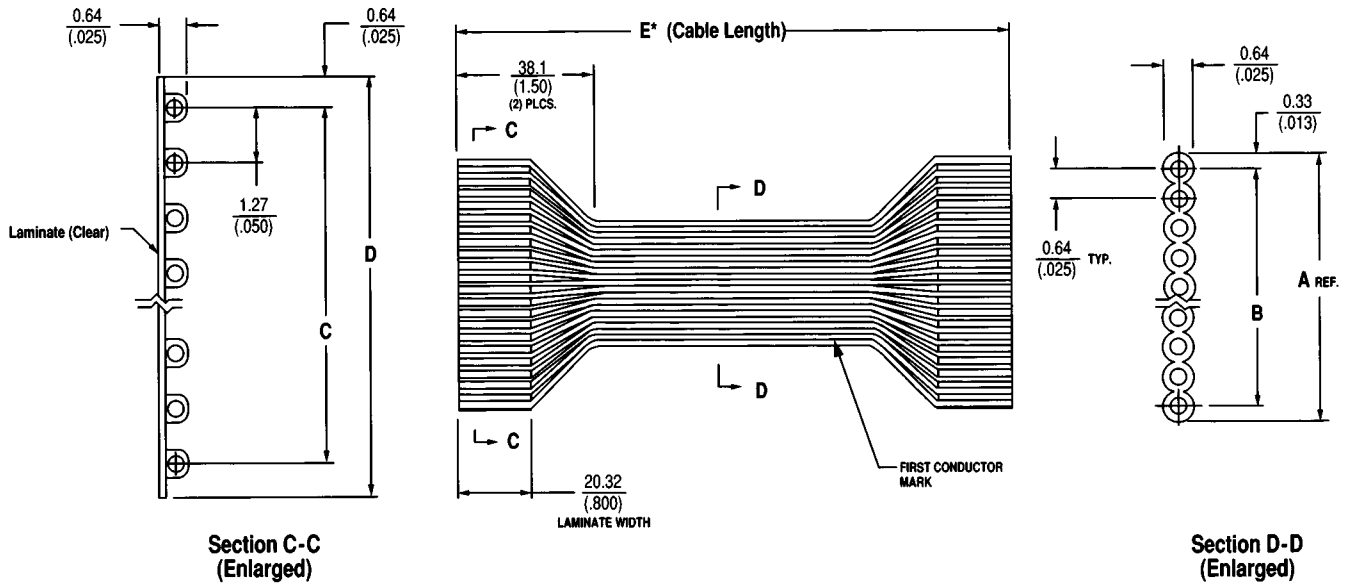
INSULATION MATERIAL: Flexible PVC
COLOR: Blue/Grey
CONDUCTORS: 30 AWG, solid bare copper

ELECTRICAL PROPERTIES

VOLTAGE RATING: 150V rms
INSULATION RESISTANCE: $>10^{10}$ Ohms
IMPEDANCE: 80 Ohms
CAPACITANCE @ 1 MHz: 62.3 pF/m (19.0 pF/ft.)
INDUCTANCE @ 1 MHz: .49 μ H/m (.15 μ H/ft.)
PROPAGATION DELAY: 5.25 nSec/m (1.60 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: -20° C to 105° C



Ordering Information

NUMBER OF CONDUCTORS	CATALOG NUMBER	DIMENSIONS				
		A	B	C	D	E*
20	136-020-0100D	12.70 (.500)	12.07 (.475)	24.13 (.950)	25.40 (1.000)	305 (12.0)
26	136-026-0100D	16.51 (.650)	15.88 (.625)	31.75 (1.250)	33.02 (1.300)	305 (12.0)
30	136-030-0100D	19.05 (.750)	18.42 (.725)	36.83 (1.450)	38.10 (1.500)	305 (12.0)
34	136-034-0100D	21.59 (.850)	20.96 (.825)	41.91 (1.650)	43.18 (1.700)	305 (12.0)
40	136-040-0100D	25.40 (1.000)	24.77 (.975)	49.53 (1.950)	50.80 (2.000)	305 (12.0)
50	136-050-0100D	31.75 (1.250)	31.12 (1.225)	62.23 (2.450)	63.50 (2.500)	305 (12.0)
60	136-060-0100D	38.10 (1.500)	37.47 (1.475)	74.93 (2.950)	76.20 (3.000)	305 (12.0)

* Other custom cable lengths available on request.

.050" PITCH FLAT CABLE
SERIES 171 – 28 AWG (7/36) STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: PVC
CONDUCTORS: 28 AWG, Stranded

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
INSULATION RESISTANCE: >10¹⁰ Ohms
IMPEDANCE: 100 Ohms
CAPACITANCE @ 1 MHz: 46 pF/m (14.0 pF/ft.)
INDUCTANCE @ 1 MHz: .46 μH/m (.14 μH/ft.)
PROPAGATION DELAY: 4.53 nSec/m (1.38 nSec/ft.)

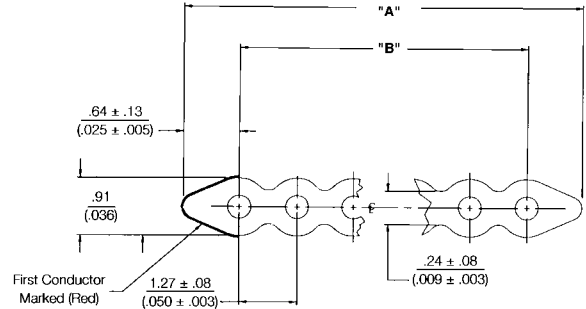
ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 105° C

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

Conductor Spacing mm (in)	1.27 (.050)		
Typical Crosstalk	Rise Time nSec	3.0	7.0
Characteristics	Near End (%)	5.0	3.2
10FT Sample 1 line driven	Far End (%)	6.7	2.7
UL Style No.	2651		



Accumulation of pitch tolerance between conductors in entire cable may not exceed tolerance of dim. "B".

Ordering Information

28 GAUGE STRANDED	NO. OF POS.	DIMENSIONS IN MM (INCHES)		B TOLERANCE
		A	B	
171-9	9	11.43 (.450)	10.16 (.400)	± .18 (±.007)
171-10ED	10	12.70 (.500)	11.43 (.450)	
171-12	12	15.24 (.600)	13.97 (.550)	
171-14	14	17.78 (.700)	16.51 (.650)	
171-15	15	19.05 (.750)	17.78 (.700)	
171-16	16	20.32 (.800)	19.05 (.750)	± .25 (±.010)
171-20	20	25.40 (1.000)	24.13 (.950)	
171-24ED	24	30.48 (1.200)	29.21 (1.150)	
171-25	25	31.75 (1.250)	30.48 (1.200)	
171-26	26	33.02 (1.300)	31.75 (1.250)	
171-28	28	35.56 (1.400)	34.29 (1.350)	± .38 (±.015)
171-30ED	30	38.10 (1.500)	36.83 (1.450)	
171-34	34	43.18 (1.700)	41.91 (1.650)	
171-36	36	45.72 (1.800)	44.45 (1.750)	
171-37	37	46.99 (1.850)	45.72 (1.800)	
171-40ED	40	50.80 (2.000)	49.53 (1.950)	± .38 (±.015)
171-44	44	55.88 (2.200)	54.61 (2.150)	
171-50	50	63.50 (2.500)	62.23 (2.450)	
171-56	56	71.12 (2.800)	69.85 (2.750)	
171-60	60	76.20 (3.000)	74.93 (2.950)	
171-64	64	81.28 (3.200)	80.01 (3.150)	

.050" PITCH FLAT CABLE SERIES 173 – 28 AWG SOLID



PHYSICAL PROPERTIES

INSULATION MATERIAL: PVC
CONDUCTORS: 28 AWG, Solid

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
INSULATION RESISTANCE: $>10^{10}$ Ohms
IMPEDANCE: 105 Ohms
CAPACITANCE @ 1 MHz: 44.3 pF/m (13.5 pF/ft.)
INDUCTANCE @ 1 MHz: .49 μ H/m (.15 μ H/ft.)
PROPAGATION DELAY: 4.53 nSec/m (1.38 nSec/ft.)

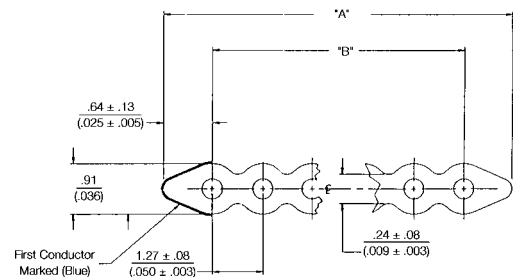
ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 105° C

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

Conductor Spacing mm (in)	1.27 (.050)		
Typical Crosstalk	Rise Time nSec	3.0	7.0
Characteristics	Near End (%)	4.8	3.1
10FT Sample 1 line driven	Far End (%)	7.3	2.9
UL Style No.	2651		



Accumulation of pitch tolerance between conductors in entire cable may not exceed tolerance of dim. "B".

Ordering Information

CATALOG NUMBERS 28 GAUGE SOLID	NO. OF POS.	DIMENSIONS IN MM (INCHES)		
		A	B	B TOLERANCE
173-9	9	11.43 (.450)	10.16 (.400)	± .18 (±.007)
173-10	10	12.70 (.500)	11.43 (.450)	
—	12	15.24 (.600)	13.97 (.550)	
173-14	14	17.78 (.700)	16.51 (.650)	± .25 (±.010)
173-15	15	19.05 (.750)	17.78 (.700)	
173-16	16	20.32 (.800)	19.05 (.750)	
173-20	20	25.40 (1.000)	24.13 (.950)	
173-24	24	30.48 (1.200)	29.21 (1.150)	
173-25	25	31.75 (1.250)	30.48 (1.200)	
173-26	26	33.02 (1.300)	31.75 (1.250)	± .38 (±.015)
—	28	35.56 (1.400)	34.29 (1.350)	
—	30	38.10 (1.500)	36.83 (1.450)	
173-34	34	43.18 (1.700)	41.91 (1.650)	
—	36	45.72 (1.800)	44.45 (1.750)	
173-37	37	46.99 (1.850)	45.72 (1.800)	
173-40	40	50.80 (2.000)	49.53 (1.950)	± .38 (±.015)
173-44	44	55.88 (2.200)	54.61 (2.150)	
173-50	50	63.50 (2.500)	62.23 (2.450)	
173-56	56	71.12 (2.800)	69.85 (2.750)	
173-60	60	76.20 (3.000)	74.93 (2.950)	
—	64	81.28 (3.200)	80.01 (3.150)	

.050" PITCH FLAT CABLE SERIES 179 – 26 AWG (7/34) STRANDED



LL53375 E41651



PHYSICAL PROPERTIES

INSULATION MATERIAL: PVC
CONDUCTORS: 26 AWG, Stranded

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
INSULATION RESISTANCE: $>10^{10}$ Ohms
IMPEDANCE: 93 Ohms
CAPACITANCE @ 1 MHz: 49.5 pF/m (15.1 pF/ft.)
INDUCTANCE @ 1 MHz: .43 μ H/m (.13 μ H/ft.)
PROPAGATION DELAY: 4.43 nSec/m (1.35 nSec/ft.)

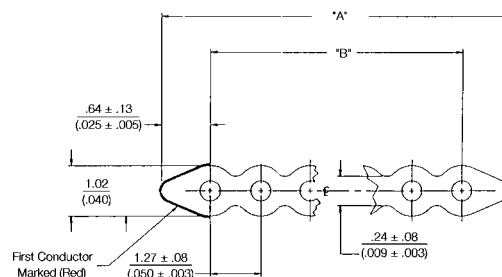
ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 105° C

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

Conductor Spacing mm (in)	1.27 (.050)		
Typical Crosstalk	Rise Time nSec	3.0	7.0
Characteristics	Near End (%)	5.2	3.8
10FT Sample 1 line driven	Far End (%)	6.1	2.3
UL Style No.	2651		



Accumulation of pitch tolerance between conductors in entire cable may not exceed tolerance of dim. "B".

Ordering Information

26 GAUGE SOLID	NO. OF POS.	DIMENSIONS IN MM (INCHES)		B TOLERANCE
		A	B	
179-9	9	11.43 (.450)	10.16 (.400)	± .18 (±.007)
—	10	12.70 (.500)	11.43 (.450)	
—	12	15.24 (.600)	13.97 (.550)	
179-14	14	17.78 (.700)	16.51 (.650)	± .25 (±.010)
179-15	15	19.05 (.750)	17.78 (.700)	
179-16	16	20.32 (.800)	19.05 (.750)	
179-20	20	25.40 (1.000)	24.13 (.950)	
179-24	24	30.48 (1.200)	29.21 (1.150)	
179-25	25	31.75 (1.250)	30.48 (1.200)	
179-26	26	33.02 (1.300)	31.75 (1.250)	
—	28	35.56 (1.400)	34.29 (1.350)	
179-30	30	38.10 (1.500)	36.83 (1.450)	
179-34	34	43.18 (1.700)	41.91 (1.650)	
179-36	36	45.72 (1.800)	44.45 (1.750)	± .38 (±.015)
—	37	46.99 (1.850)	45.72 (1.800)	
179-40	40	50.80 (2.000)	49.53 (1.950)	
179-44	44	55.88 (2.200)	54.61 (2.150)	
179-50	50	63.50 (2.500)	62.23 (2.450)	
—	56	71.12 (2.800)	69.85 (2.750)	
—	60	76.20 (3.000)	74.93 (2.950)	
—	64	81.28 (3.200)	80.01 (3.150)	

.050" PITCH TPE FLAT CABLE SERIES 177 - 28 AWG STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: TPE
CONDUCTORS: 28 AWG, Stranded

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
INSULATION RESISTANCE: >10¹⁰ Ohms
IMPEDANCE: 96 Ohms
CAPACITANCE @ 1 MHz: 53 pF/m (16.0 pF/ft.)
INDUCTANCE @ 1 MHz: XX μH/m (.16 μH/ft.)
PROPAGATION DELAY: 4.53 nSec/m (1.38 nSec/ft.)

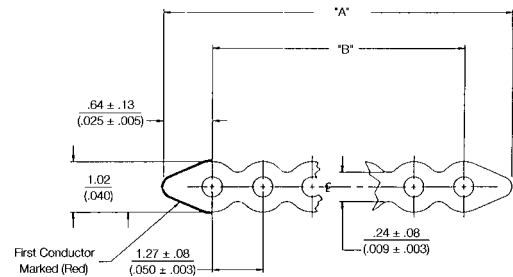
ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 105° C

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
OPTIONAL: Other roll quantities and labeling options available. See page XX for details.

Conductor Spacing mm (in)	1.27 (.050)		
Typical Crosstalk	Rise Time nSec	3.0	7.0
Characteristics	Near End (%)	5.0	3.2
10FT Sample 1 line driven	Far End (%)	6.7	2.7
UL Style No.	2651		



Accumulation of pitch tolerance between conductors in entire cable may not exceed tolerance of dim. "B".

Ordering Information

CATALOG NUMBERS	NUMBER OF CONDUCTORS	DIMENSIONS IN MM (INCHES)		
		A	B	B TOLERANCE
177-9	9	11.43 (.450)	10.16 (.400)	
177-10	10	12.70 (.500)	11.43 (.450)	± .18 (±.007)
177-14	14	17.78 (.700)	16.51 (.650)	
177-16	16	20.32 (.800)	19.05 (.750)	
177-18	18	22.86 (.900)	21.59 (.850)	
177-20	20	25.40 (1.000)	24.13 (.950)	
177-22	22	27.94 (1.100)	26.67 (1.050)	± .25 (±.010)
177-24	24	30.48 (1.200)	29.21 (1.150)	
177-26	26	33.02 (1.300)	31.75 (1.250)	
177-34	34	43.18 (1.700)	41.91 (1.650)	
177-40	40	50.80 (2.000)	49.53 (1.950)	
177-50	50	63.50 (2.500)	62.23 (2.450)	± .38 (±.015)
177-64	64	81.28 (3.200)	80.01 (3.150)	

.050" PITCH FEP (TEFLON™) FLAT RIBBON CABLE SERIES 181 – 28 AWG (7/36) STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: Teflon (FEP)
CONDUCTORS: 28 AWG, (7/36) Stranded

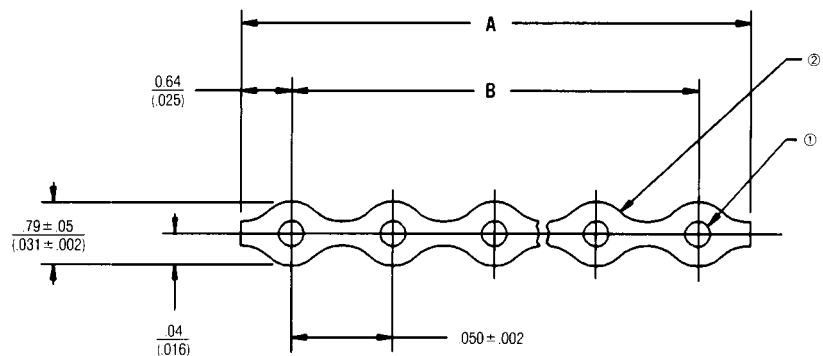
ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
INSULATION RESISTANCE: >7500 MΩ/Ft
IMPEDANCE: 165 Ohms
CAPACITANCE @ 1 MHz: XX pF/m (5.7 pF/ft.)
INDUCTANCE @ 1 MHz: XX μH/m (.16 μH/ft.)
PROPAGATION DELAY: XX nSec/m (1.19 nSec/ft.)

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 200° C

Dielectric Withstanding Voltage 1500
Effective Dielectric Constant 1.4
UL Style No. 20424
MIL SPEC. MIL-C-49055



NOTES:
① CONDUCTORS: 28 AWG (7/36) SILVER PLATED STRANDED COPPER WIRE.
② INSULATION: TEFLON (FEP) COLOR TO BE LIGHT BLUE WITH DARK BLUE POLARIZATION STRIPE ON #1 CONDUCTOR.

Ordering Information

CATALOG NUMBERS	NUMBER OF CONDUCTORS	DIMENSIONS IN MM (INCHES)	
		A	B
181-09	9	11.43 ± .254 (.450 ± .010)	10.16 ± .203 (.400 ± .008)
181-10	10	12.70 ± .254 (.500 ± .010)	11.43 ± .203 (.450 ± .008)
181-14	14	17.78 ± .254 (.700 ± .010)	16.51 ± .203 (.650 ± .008)
181-15	15	19.05 ± .254 (.750 ± .010)	17.78 ± .254 (.700 ± .010)
181-16	16	20.32 ± .381 (.800 ± .015)	19.05 ± .254 (.750 ± .010)
181-20	20	25.40 ± .381 (1.000 ± .015)	24.13 ± .254 (.950 ± .010)
181-24	24	30.48 ± .381 (1.200 ± .015)	29.21 ± .254 (1.150 ± .010)
181-25	25	31.75 ± .381 (1.250 ± .015)	30.48 ± .254 (1.200 ± .010)
181-26	26	33.02 ± .381 (1.300 ± .015)	31.75 ± .254 (1.250 ± .010)
181-34	34	43.18 ± .458 (1.700 ± .018)	33.02 ± .305 (1.650 ± .01)
181-37	37	46.99 ± .458 (1.850 ± .018)	45.72 ± .305 (1.800 ± .012)
181-40	40	50.80 ± .508 (2.000 ± .020)	49.53 ± .356 (1.950 ± .014)
181-50	50	63.50 ± .508 (2.500 ± .020)	62.23 ± .381 (2.450 ± .015)
181-60	60	76.20 ± .508 (3.000 ± .020)	74.93 ± .508 (2.950 ± .020)
181-64	64	81.28 ± .508 (3.200 ± .020)	80.01 ± .508 (3.150 ± .020)

.050" PITCH HIGH FLEX LIFE FLAT CABLE SERIES 185 – 28 AWG STRANDED (19/40) STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: PVC
 CONDUCTORS: 28 AWG, (19/40) Stranded
 CONDUCTORS SPACING MM (IN): 1.27 (.050)

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
 INSULATION RESISTANCE: >10¹⁰ Ohms
 IMPEDANCE: 96 Ohms
 CAPACITANCE @ 1 MHz: 53 pF/m (16.0 pF/ft.)
 INDUCTANCE @ 1 MHz: XX µH/m (.16 µH/ft.)
 PROPOGATION DELAY: 4.53 nSec/m (1.38 nSec/ft.)
 TYPICAL CROSSTALK Rise Time nSec 3.0 7.0
 CHARACTERISTICS Near End (%) 5.0 3.2
 10FT SAMPLE 1 LINE DRIVEN Far End (%) 6.7 2.7

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 105° C

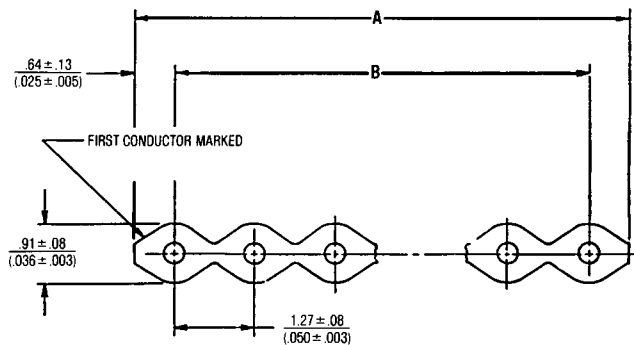
FEATURES

- Special 19/40 Conductor Stranding for Superior Flex Life

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
 OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

UL Style No. 2651



Ordering Information

CATALOG NUMBERS	NUMBER OF CONDUCTORS	DIMENSIONS IN MM (INCHES)		
		A	B	B TOLERANCE
185-09	9	11.43 (.450)	10.16 (.400)	±.18 (.007)
185-10	10	12.70 (.500)	11.43 (.450)	±.18 (.007)
185-14	14	17.78 (.700)	16.51 (.650)	±.18 (.007)
185-16	16	20.32 (.800)	19.05 (.750)	±.25 (.010)
185-18	18	22.86 (.900)	21.59 (.850)	±.25 (.010)
185-20	20	25.40 (1.000)	24.13 (.950)	±.25 (.010)
185-22	22	27.94 (1.100)	26.67 (1.050)	±.25 (.010)
185-24	24	30.48 (1.200)	29.21 (1.150)	±.25 (.010)
185-26	26	33.02 (1.300)	31.75 (1.250)	±.25 (.010)
185-34	34	43.18 (1.700)	41.91 (1.650)	±.25 (.010)
185-40	40	50.80 (2.000)	49.53 (1.950)	±.38 (.015)
185-50	50	63.50 (2.500)	62.23 (2.450)	±.38 (.015)

.050" PITCH JACKETED FLAT CABLE SERIES 174 – 28 AWG (7/36) STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: Polyethylene with PVC Jacket
CONDUCTORS: 28 AWG, Stranded
CONDUCTOR SPACING MM (IN): 1.27 (.050)

ELECTRICAL PROPERTIES

VOLTAGE RATING: 90V rms
INSULATION RESISTANCE: >10¹⁰ Ohms
IMPEDANCE: 93 Ohms
CAPACITANCE @ 1 MHz: 63.0 pF/m (19.2 pF/ft.)
TYPICAL CROSSTALK Rise Time nSec 3.0 7.0
CHARACTERISTICS Near End (%) 4.5 4.1
10FT SAMPLE 1 LINE DRIVEN Far End (%) — 2.0
INDUCTANCE @ 1 MHz: .56 µH/m (.17 µH/ft.)
PROPAGATION DELAY: 5.25 nSec/m (1.60 nSec/ft.)

ENVIRONMENTAL PROPERTIES

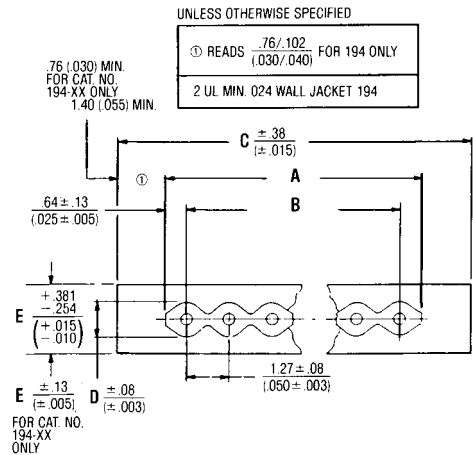
TEMPERATURE RATING: 75 °C

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

UL Style No. 2604

CABLE SERIES	DIMENSIONS IN MM (INCHES)	
	D	E
174	.86 (.034)	4.19 (.165)



Ordering Information

NO. OF CONDUCTORS CABLE STRANDED	SERIES 174 28 GAUGE	DIMENSIONS IN MM (INCHES)		
		A	B	C
9	174-09	11.43 (.450)	10.16 (.400)	14.48 (.570)
10	174-10	12.70 (.500)	11.43 (.450)	± .18 (.007) 15.75 (.620)
14	174-14	17.78 (.700)	16.51 (.650)	20.83 (.820)
15	174-15	19.05 (.750)	17.78 (.700)	22.10 (.870)
16	174-16	20.32 (.800)	19.05 (.750)	23.37 (.920)
20	174-20	25.40 (1.000)	24.13 (.950)	28.45 (1.120)
24	174-24	30.48 (1.200)	29.21 (1.150)	33.53 (1.320)
25	174-25	31.75 (1.250)	30.48 (1.200)	± .25 (.010) 34.80 (1.370)
26	174-26	33.02 (1.300)	31.75 (1.250)	36.07 (1.420)
34	174-34	43.18 (1.700)	41.91 (1.650)	46.23 (1.820)
36	174-36	45.72 (1.800)	44.45 (1.750)	48.77 (1.920)
37	174-37	46.99 (1.850)	45.72 (1.800)	50.04 (1.970)
40	174-40	50.80 (2.000)	49.53 (1.950)	53.85 (2.120)
44	174-44	55.88 (2.200)	54.61 (2.150)	58.93 (2.320)
50	174-50	63.50 (2.500)	62.23 (2.450)	66.55 (2.620)
56	174-56	71.12 (2.800)	69.85 (2.650)	± .38 (.015) 74.17 (2.920)
60	174-60	76.20 (3.000)	74.93 (2.950)	79.25 (3.120)
64	174-64	81.28 (3.200)	80.01 (3.150)	84.33 (3.320)

.050" PITCH JACKETED SHIELDED FLAT CABLE SERIES 187 – 28 AWG (7/36) STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: PVC
CONDUCTORS: 28 AWG, Stranded
CONDUCTOR SPACING MM (IN): 1.27 (.050)

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
IMPEDANCE: 40 Ohms
CAPACITANCE @ 1 MHz: 164.0 pF/m (50.0 pF/ft.)
PROPAGATION DELAY: 5.57 nSec/m (1.70 nSec/ft.)
TYPICAL CROSSTALK Rise Time nSec 3.0 7.0
CHARACTERISTICS Near End (%) 3.0 1.6
10FT SAMPLE 1 LINE DRIVEN Far End (%) 2.0 2.5

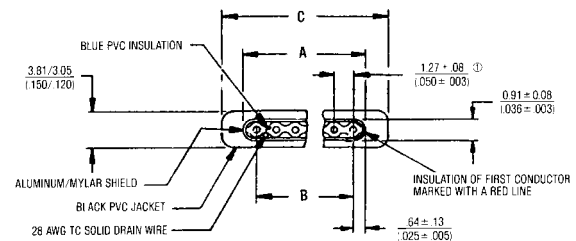
ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 105° C

PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

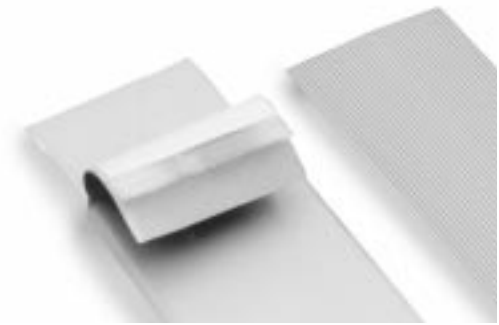
UL Style No. 20529



Ordering Information

CATALOG NUMBERS	NUMBER OF CONDUCTORS	DIMENSIONS IN MM (INCHES)			
		A	B	B TOLERANCE	C ± .51 (±.02)
187-09	9	11.43 (.450)	10.16 (.400)	± .18 (.007)	14.73 (.580)
187-10	10	12.70 (.500)	11.43 (.450)	± .18 (.007)	16.00 (.630)
187-14	14	17.78 (.700)	16.51 (.650)	±.18 (.007)	21.08 (.830)
187-15	15	19.05 (.750)	17.78 (.700)	±.25 (.010)	22.35 (.880)
187-16	16	20.32 (.800)	19.05 (.750)	±.25 (.010)	23.62 (.930)
187-20	20	25.40 (1.000)	24.13 (.950)	±.25 (.010)	28.70 (1.130)
187-24	24	30.48 (1.200)	29.21 (1.150)	±.25 (.010)	33.78 (1.330)
187-25	25	31.75 (1.250)	30.48 (1.200)	±.25 (.010)	35.05 (1.380)
187-26	26	33.02 (1.300)	31.75 (1.250)	±.25 (.010)	36.32 (1.530)
187-34	34	43.18 (1.700)	41.91 (1.650)	±.25 (.010)	46.48 (1.830)
187-36	36	45.72 (1.800)	44.45 (1.750)	±.25 (.010)	49.02 (1.930)
187-37	37	46.99 (1.850)	45.72 (1.800)	±.25 (.010)	50.29 (1.980)
187-40	40	50.80 (2.000)	49.53 (1.950)	±.38 (.015)	54.10 (2.130)
187-44	44	55.88 (2.200)	54.61 (2.150)	±.38 (.015)	59.18 (2.330)
187-50	50	63.50 (2.500)	62.23 (2.450)	±.38 (.015)	66.80 (2.630)
187-56	56	71.12 (2.800)	69.85 (2.750)	±.38 (.015)	74.42 (2.930)
187-60	60	76.20 (3.000)	74.93 (2.950)	±.38 (.015)	79.50 (3.130)
187-64	64	81.28 (3.200)	80.01 (3.150)	±.38 (.015)	84.58 (3.330)

.050" PITCH GROUND PLANE FLAT CABLE SERIES 196 – 28 AWG (7/36) STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: PVC
CONDUCTORS: 28 AWG (7/36), Stranded
CONDUCTOR SPACING MM (IN): 1.27 (.050)

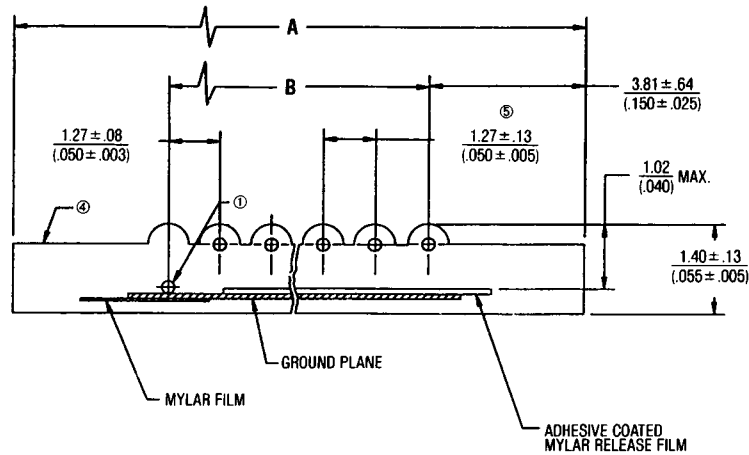
ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
IMPEDANCE: 66 Ohms
CAPACITANCE @ 1 MHz: 95.0 pF/m (29.0 pF/ft.)
PROPAGATION DELAY: 6.07 nSec/m (1.85 nSec/ft.)
TYPICAL CROSSTALK Rise Time nSec 3.0 7.0
CHARACTERISTICS Near End (%) 3.9 2.0
10FT SAMPLE 1 LINE DRIVEN Far End (%) 7.0 3.75

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 105° C

UL Style No. 20218



Ordering Information

CATALOG NUMBERS	NUMBER OF CONDUCTORS	DIMENSIONS IN MM (INCHES)		
		A ±2.54 (.10)	B	B TOLERANCE
196-14	14	24.13 (.95)	16.51 (.650)	±.25 (.007)
196-20	20	31.75 (1.25)	24.13 (.950)	±.25 (.010)
196-25	25	38.10 (1.50)	30.48 (1.200)	±.25 (.010)
196-26	26	39.37 (1.55)	31.75 (1.250)	±.25 (.010)
196-34	34	49.53 (1.95)	41.91 (1.650)	±.25 (.010)
196-37	37	53.34 (2.10)	45.72 (1.800)	±.38 (.015)
196-40	40	57.15 (2.25)	49.53 (1.950)	±.38 (.015)
196-50	50	69.85 (2.75)	62.23 (2.450)	±.38 (.015)
196-60	60	82.55 (3.25)	74.93 (2.950)	±.38 (.015)
196-64	64	87.63 (3.45)	80.01 (3.150)	±.38 (.015)

.050" PITCH TWISTED PAIR FLAT CABLE SERIES 200 – 28 AWG (7/36) STRANDED



PHYSICAL PROPERTIES

INSULATION MATERIAL: PVC
CONDUCTORS: 28 AWG (7/36), Stranded
CONDUCTOR SPACING MM (IN): 1.27 (.050)

ELECTRICAL PROPERTIES

VOLTAGE RATING: 300V rms
IMPEDANCE: 100 Ohms
CAPACITANCE @ 1 MHz: (16.0 pF/ft.)
PROPAGATION DELAY: (1.56 nSec/ft.)

TYPICAL CROSSTALK	Rise Time nSec	3.0	7.0
CHARACTERISTICS	Near End (%)	6.3	3.8
10FT SAMPLE 1 LINE DRIVEN	Far End (%)	7.5	4.0

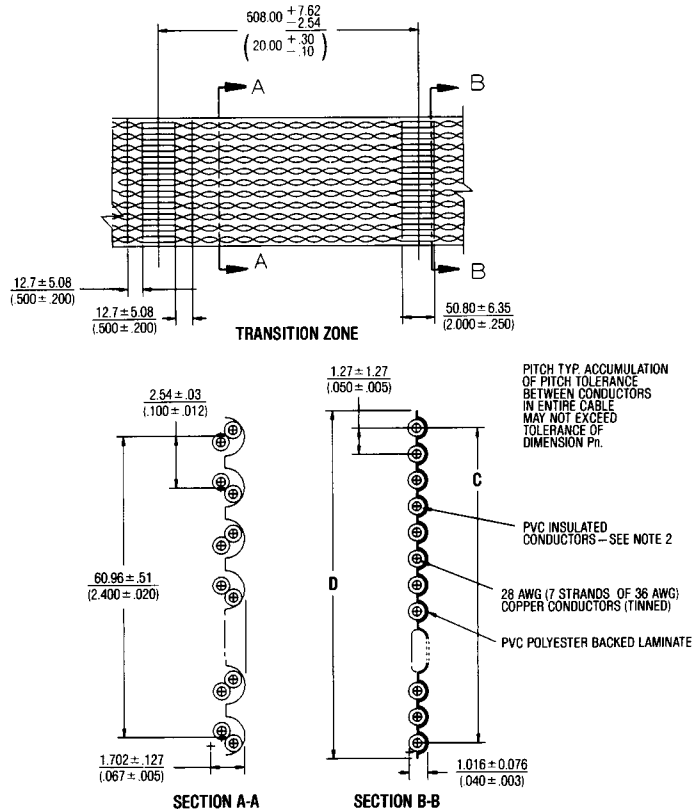
ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 80° C

UL Style No. 20634

NOTES:

- Adjacent pairs are twisted in opposite direction.
- Color code: Alternating brown, red, orange, yellow, green, blue, violet, gray, white, black, then repeated. Each color lead paired with a tan (common).
- This cable is listed under U.L. style #20634 at 300V and 80° C.



Ordering Information

CATALOG NUMBERS	NUMBER OF CONDUCTORS (PAIRS)	DIMENSIONS IN MM (INCHES)	
		C	D
200-10A	10 (5)	11.43 ± 0.08 (0.45 ± 0.010)	12.29 ± 0.40 (.484 ± 0.016)
200-14A	14 (7)	16.51 ± 0.25 (0.65 ± 0.010)	17.37 ± 0.40 (.684 ± 0.016)
200-16A	16 (8)	19.05 ± 0.25 (0.75 ± 0.010)	19.91 ± 0.40 (.784 ± 0.016)
200-20A	20 (10)	24.13 ± 0.25 (0.95 ± 0.010)	24.99 ± 0.40 (.984 ± 0.016)
200-24A	24 (12)	29.21 ± 0.25 (1.15 ± 0.010)	30.07 ± 0.40 (1.184 ± 0.016)
200-26A	26 (13)	31.75 ± 0.25 (1.25 ± 0.010)	32.61 ± 0.40 (1.284 ± 0.016)
200-34A	34 (17)	41.91 ± 0.35 (1.65 ± 0.014)	42.77 ± 0.53 (1.684 ± 0.021)
200-36A	36 (18)	44.45 ± 0.35 (1.75 ± 0.014)	45.31 ± 0.53 (1.784 ± 0.021)
200-40A	40 (20)	49.53 ± 0.35 (1.95 ± 0.014)	47.85 ± 0.53 (1.884 ± 0.021)
200-50A	50 (25)	62.23 ± 0.35 (2.45 ± 0.014)	63.09 ± 0.53 (2.484 ± 0.021)
200-60A	60 (30)	74.93 ± 0.35 (2.95 ± 0.014)	75.79 ± 0.53 (2.984 ± 0.021)
200-64A	64 (32)	80.01 ± 0.35 (3.15 ± 0.014)	80.87 ± 0.53 (3.184 ± 0.021)

.050" PITCH COLOR CODED FLAT CABLE

SERIES 201 – 28 AWG (7/36) STRANDED

SERIES 202 – 26 AWG SOLID



PHYSICAL PROPERTIES

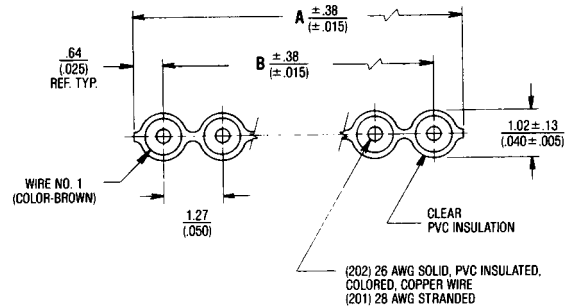
INSULATION MATERIAL:	201	202
CONDUCTORS:	PVC	PVC
CONDUCTOR SPACING MM (IN):	28 AWG, Stranded	26 AWG, Solid
	1.27 (.050)	

ELECTRICAL PROPERTIES

VOLTAGE RATING:	300V rms	300V rms
INSULATION RESISTANCE:	>10 ¹⁰ Ohms	>10 ¹⁰ Ohms
IMPEDANCE:	100 Ohms	103 Ohms
CAPACITANCE @ 1 MHZ:	(14.0 pF/ft.)	(13.5 pF/ft.)
INDUCTANCE @ 1 MHZ:	(.14 µH/ft.)	(.14 µH/ft.)
PROPAGATION DELAY:	(1.38 nSec/ft.)	(1.38 nSec/ft.)
TYPICAL CROSSTALK CHARACTERISTICS	Rise Time nSec	3.0 7.0
10FT SAMPLE 1 LINE DRIVEN	Near End (%)	5.0 3.2
	Far End (%)	6.7 2.7

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING:	105° C	105° C
UL Style No.	20067	



Ordering Information

WIRE COLOR SEQUENCE (REPEAT CONDUCTOR NUMBERS)	
CONDUCTOR NUMBER	COLOR
1	Brown
2	Red
3	Orange
4	Yellow
5	Green
6	Blue
7	Violet
8	Gray
9	White
10	Black

NUMBER OF CONDUCTORS	SERIES 201 28 GAUGE STRANDED	SERIES 202 26 GAUGE SOLID	DIMENSIONS IN MM (INCHES)	
			A	B
9	201-9	-	11.43 (.450)	10.16 (.400)
10	201-10	-	12.70 (.500)	11.43 (.450)
14	201-14	202-14	17.78 (.700)	16.51 (.650)
15	201-15	-	19.05 (.750)	17.78 (.700)
16	201-16	-	20.32 (.800)	19.05 (.750)
20	201-20	-	25.40 (1.000)	24.13 (.950)
24	201-24	202-24	30.48 (1.200)	29.21 (1.150)
25	201-25	-	31.75 (1.250)	30.48 (1.200)
26	201-26	-	33.02 (1.300)	31.75 (1.250)
34	201-34	-	43.18 (1.700)	41.91 (1.650)
36	201-36	202-36	45.72 (1.800)	44.45 (1.750)
37	201-37	-	46.99 (1.850)	45.72 (1.800)
40	201-40	-	50.80 (2.000)	49.53 (1.950)
44	201-44	-	55.88 (2.200)	54.61 (2.150)
50	201-50	202-50	63.50 (2.500)	62.23 (2.450i)
56	201-56	-	71.12 (2.800)	69.85 (2.750)
60	201-60	-	76.20 (3.000)	74.93 (2.950)
64	201-64	-	81.28 (3.200)	80.01 (3.150)

NOTES: Unless otherwise specified:

1. 202-XX to be used with micro-ribbon connectors, catalog numbers 622-XXM, F or FA. Consult factory for use with other connectors.

"FOR ROUND-TO-FLAT APPLICATIONS"

.050" PITCH ROUND CABLE

SERIES 300 – 28 AWG (7/36) STRANDED—SHIELDED

SERIES 301 – 28 AWG (7/36) STRANDED—NON-SHIELDED



PHYSICAL PROPERTIES

300
INSULATION MATERIAL: PVC
CONDUCTORS: 28 AWG, Stranded—Shielded
CONDUCTOR SPACING MM (IN): 1.27 (.050)

301

INSULATION MATERIAL: PVC
CONDUCTORS: 28 AWG, Stranded—Non-Shielded

ELECTRICAL PROPERTIES

VOLTAGE RATING:	300V rms	300V rms
IMPEDANCE:	57 Ohms	63 Ohms
CAPACITANCE @ 1 MHz:	92.2 pF/m (36.3 pF/ft.)	80.5 pF/m (31.7 pF/ft.)
INDUCTANCE @ 1 MHz:	.30 µH/m (.120 µH/ft.)	.33 µH/m (.129 µH/ft.)
PROPAGATION DELAY:	4.5 nSec/m (1.79 nSec/ft.)	4.4 nSec/m (1.73 nSec/ft.)
TYPICAL CROSSTALK	Rise Time nSec	3.0 7.0
CHARACTERISTICS	Near End (%)	3.8 1.8
10FT SAMPLE 1 LINE DRIVEN	Far End (%)	4.8 3.3

ENVIRONMENTAL PROPERTIES

TEMPERATURE RATING: 80° C 80° C

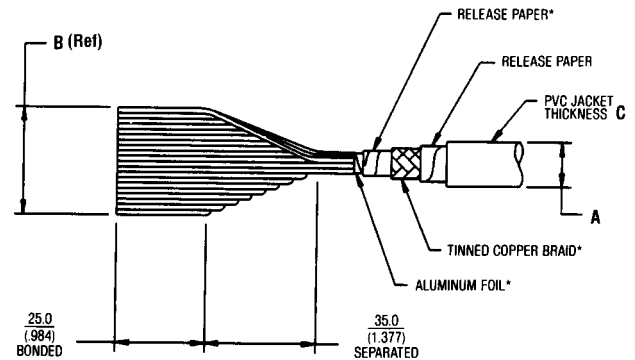
PACKAGING

STANDARD: Splice free 100 foot rolls with UL/CSA markings on reels
OPTIONAL: Other roll quantities and labeling options available. See page 121 for details.

UL Style No. 20267



Typical Application Shown for Reference



*ITEMS MARKED ARE ON 300-XX SHIELDED CABLE ONLY.

Ordering Information

NO. OF CONDUCTORS	SHIELDED CABLE	DIMENSIONS IN MM (INCHES)			NON-SHIELDED CABLE	DIMENSIONS IN MM (INCHES)		
		A	B	C		A	B	C
9	300-09	7.0 (0.27)	11.43 (0.45)	0.8 (0.03)	301-09	6.5 (0.26)	11.43 (0.45)	0.8 (0.03)
10	300-10	7.0 (0.27)	12.70 (0.50)	0.8 (0.03)	301-10	6.5 (0.26)	12.70 (0.50)	0.8 (0.03)
14	300-14	7.5 (0.29)	17.78 (0.70)	0.8 (0.03)	301-14	7.0 (0.28)	17.78 (0.70)	0.8 (0.03)
15	300-15	7.5 (0.29)	19.05 (0.75)	0.8 (0.03)	301-15	7.0 (0.28)	19.05 (0.75)	0.8 (0.03)
16	300-16	8.4 (0.33)	20.30 (0.80)	0.8 (0.03)	301-16	7.9 (0.31)	20.30 (0.80)	0.8 (0.03)
20	300-20	8.5 (0.33)	25.40 (1.00)	0.8 (0.03)	301-20	8.0 (0.31)	25.40 (1.00)	0.8 (0.03)
24	300-24	9.2 (0.36)	30.48 (1.20)	0.8 (0.03)	301-24	7.7 (0.30)	30.48 (1.20)	0.8 (0.03)
25	300-25	9.2 (0.36)	31.75 (1.25)	0.8 (0.03)	301-25	7.7 (0.30)	31.75 (1.25)	0.8 (0.03)
26	300-26	9.8 (0.39)	33.02 (1.30)	0.8 (0.03)	301-26	9.3 (0.37)	33.02 (1.30)	0.8 (0.03)
30	300-30	9.8 (0.39)	38.10 (1.50)	0.8 (0.03)	301-30	9.3 (0.37)	38.10 (1.50)	0.8 (0.03)
34	300-34	10.5 (0.41)	43.20 (1.70)	0.8 (0.03)	301-34	10.0 (0.39)	43.20 (1.70)	0.8 (0.03)
36	300-36	10.6 (0.42)	45.72 (1.80)	0.8 (0.03)	301-36	10.1 (0.40)	45.72 (1.80)	0.8 (0.03)
37	300-37	10.6 (0.42)	47.00 (1.85)	1.0 (0.04)	301-37	10.1 (0.40)	47.00 (1.85)	0.8 (0.03)
40	300-40	11.3 (0.44)	50.80 (2.00)	1.0 (0.04)	301-40	10.8 (0.43)	50.80 (2.00)	1.0 (0.04)
50	300-50	11.6 (0.45)	63.50 (2.50)	1.0 (0.04)	301-50	11.1 (0.44)	63.50 (2.50)	1.0 (0.04)
60	300-60	13.0 (0.51)	76.20 (3.00)	1.0 (0.04)	301-60	12.5 (0.49)	76.20 (3.00)	1.0 (0.04)
64	300-64	13.5 (0.53)	81.30 (3.20)	1.0 (0.04)	301-64	13.0 (0.51)	81.30 (3.20)	1.0 (0.04)

.050" PITCH ROUND-TO-FLAT (VALVE ADDED) CABLE

SERIES 203 - 28 AWG (7/36) STRANDED—NON-TWISTED PAIR

SERIES 204 - 28 AWG (7/36) STRANDED—TWISTED PAIR



20X - XX - XX00 - X

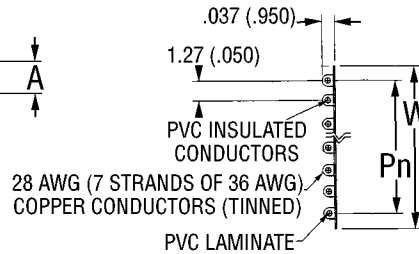
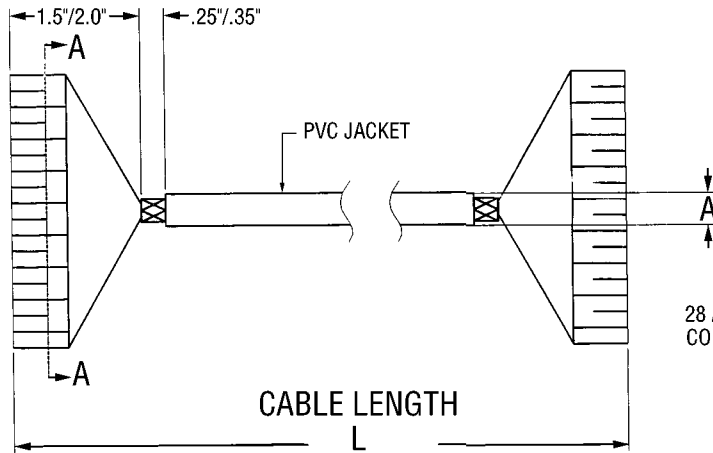
3 - Non-Twisted
4 - Twisted Pair

of Conductors
(See Below)

Length In Whole Inches

1 - Shielded
2 - Unshielded

*Length In Feet
02 - 2 ft long
05 - 5 ft long
10 - 10 ft long



SECTION A-A

PITCH TYP. ACCUMULATION OF PITCH TOLERANCE BETWEEN CONDUCTORS IN ENTIRE CABLE MAY NOT EXCEED TOLERANCE OF DIMENSION Pn.

SERIES 204 TWISTED PAIR ROUND-TO-FLAT CABLE

"A" DIAMETER	POSITIONS (PAIRS)	DIMENSIONS	
		Pn	W
.225	10	11.43 (0.45)	12.29 (.484)
.280	14	16.51 (0.65)	17.37 (.684)
.290	16	19.05 (0.75)	19.91 (.784)
.315	20	24.13 (0.95)	24.99 (.984)
.320	24	29.21 (1.15)	30.07 (1.18)
.330	26	31.75 (1.25)	32.61 (1.28)
.365	34	41.91 (1.65)	42.77 (1.68)
.370	36	44.45 (1.75)	45.31 (1.78)
.375	40	49.53 (1.95)	47.85 (1.88)
.425	50	62.23 (2.45)	63.09 (2.48)
.480	64	80.01 (3.15)	81.28 (3.20)

SERIES 203 NON-TWISTED ROUND-TO-FLAT CABLE

"A" DIAMETER	POSITIONS (PAIRS)	DIMENSIONS	
		Pn	W
.190	9	10.16 (0.40)	11.02 (.434)
.245	14	16.51 (0.65)	17.37 (.684)
.250	15	17.78 (0.70)	18.64 (.734)
.255	16	19.05 (0.75)	19.91 (.784)
.275	20	24.13 (0.95)	24.99 (.984)
.290	24	29.21 (1.15)	30.07 (1.18)
.295	25	30.48 (1.20)	31.34 (1.23)
.300	26	31.75 (1.25)	32.61 (1.28)
.330	34	41.91 (1.65)	42.77 (1.68)
.335	36	44.45 (1.75)	45.31 (1.78)
.340	37	46.74 (1.80)	46.58 (1.83)
.345	40	49.53 (1.95)	47.85 (1.88)
.385	50	62.23 (2.45)	63.09 (2.48)
.440	64	80.01 (3.15)	

OPTIONAL PACKAGING AND LABELING FOR T&B FLAT CABLE

