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LOC

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REVISIONS

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P

LTR

DESCRIPTION

DATE

DWN

APVD

H1

ECR-11-025464

16DEC11

RK

BVH

NOTES:

⚠ PITCH TOLERANCE TO BE ±.18[.007] FOR 1.27[.050] PITCH JUMPERS & ±.25[.010] FOR ALL REMAINING PITCHES. TOLERANCE TO BE NON CUMULATIVE OVER GAUGE LENGTH.

⚠ 11.92-152.40[.500-6.000] ARE STANDARD LENGTHS. JUMPERS ARE AVAILABLE IN INCREMENTS OF 2.50[.10] PLUS 6.35[.25] AND 19.05[.75].

⚠ DELETED

⚠ FOR CONDUCTOR PITCH 7 (2mm), ON PAGE 2 & 3, DIMENSION "B" IS 2.00[.079]

⚠ SPECIAL PIN LENGTHS ARE AVAILABLE FOR JUMPERS WITH A PIN CONFIGURATION OF "A" OR "B" ON LENGTHS OF UP TO 609.6[24.0] IN 2.54[.100] & 5.08[.200] PITCH VARIANTS ONLY BY ADDING THE FOLLOWING SUFFIXES:

SUFFIX	PEN LENGTH	TOLERANCE
V1	2.85 (.112)	±.305 [±.012]
V2	3.40 (.134)	
V3	4.10 (.161)	
V4	6.50 (.256)	
V5	3.10 (.122)	
V6	2.81 (.150)	
V7	4.50 (.177)	
V8	2.00 (.079)	
V9	TBD	
V10	.76 (.030)	
V11	2.41 (.095)	

"C"

DIMENSION FROM THE EDGE OF INSULATION MATERIAL TO EDGE OF THE FIRST COND. EXCEPT "M" STYLE.

6. RECOMMENDED PCB HOLE DRILLING DETAILS ARE AS FOLLOWS:-

PITCH A	ØG
1.27 (.050)	.70 (.028)
1.90 (.075)	.80 (.031)
2.54 (.100)	.95 (.037)
3.18 (.125)	.95 (.037)
3.81 (.150)	.95 (.037)
5.08 (.200)	.95 (.037)

PITCH A

ØG ±.03(.001)

⚠ BEND RADIUS TO APPLY ONLY IN THE FLAT SECTION OF JUMPER BETWEEN THE CONDUCTOR TRANSITION AREAS.

⚠ PER 108-2135.

9. TOOL MARKS PERMISSIBLE ON BENDS. NO EXPOSED COPPER.

⚠ PIN DIAMETER SPECIFIED NOT APPLICABLE IN BENDING AREA OF PIN, DUE TO NORMAL DEFORMATION OF BENDING PROCESS.

⚠ REFER TO RELEVANT MATERIAL SPECIFICATIONS.

F - MID POINT THICKNESS BETWEEN PT 1 & PT 2	MINIMUM	MAXIMUM
NOMEX®	.152 [.006]	.305 [.012]
POLYESTER	.152 [.006]	.305 [.012]
KAPTON®	.102 [.004]	.254 [.010]
TEFLON®	.305 [.012]	.533 [.021]

12. PRODUCT AND PROCESSING MUST MEET REQUIREMENTS OF TE CONNECTIVITY STANDARD 230-702.

Nomex®, Teflon® and Kapton® are trademarks of E. I. DuPont de Nemours.

①

②

F

(MID-PIN THICKNESS)

SEE CHART

D

(MAX THICKNESS)

E

(PIN DIAMETER)

C

(MARGIN)

A

V

(MAX ADHESIVE FLOW)

NOT INCLUDED IN DIM B

Z

(2 PLC)

JUMPER LENGTH

R ±1.524(.060)

T

NO NICKS ON INSULATION

X

NO TRANSITION OUTSIDE INSULATION AREA

Y

(CONDUCTOR WIDTH)

JUMPER WIDTH

(1° MAX DRAW ANGLE)

JUMPER LENGTH	PITCH (NOMINAL)	TRANSITION MAX	MAX/MIN MARGIN	△ PIN DIAMETER	WIRE GAUGE (AWG)	MIN/MAX No OF CONDUCTORS	MAXIMUM ADHESIVE FLOW	MIN GAP BETWEEN CONDUCTORS	CONDUCTOR WIDTH	MAXIMUM INSULATION MISMATCH	MAX THICKNESS
R △2	A △1	T	C	E	-	-	V	X	Y	Z	D
11.93 (.50) TO 863.6 (30.00) IN STEPS OF 2.50 (.10) PLUS 6.35 (.25) AND 19.05 (.75)	1.00 (0.039)	4.32 [.170]	0.35 (.014) 0.17 (.007)	0.330 (.0130) 0.317 (.0125)	28	2-70	0.38 (0.015)	0.13 (0.009)	0.76 (.030) 0.56 (.022)	.76 (.030)	.64
	1.25 (0.049)	4.32 [.170]	0.50 (0.020) 0.17 (0.007)	0.330 (.0130) 0.317 (.0125)	28	2-70	0.38 (0.015)	0.25 (0.010)	0.89 (.035) 0.64 (.025)	.76 (.030)	.64
	1.27 (0.050)	4.32 [.170]	0.50 (0.020) 0.17 (0.007)	0.330 (.0130) 0.317 (.0125)	28	2-70	0.38 (0.015)	0.25 (0.010)	0.89 (.035) 0.64 (.025)	.76 (.030)	.64
	2.00 (0.079)	5.08 [.200]	0.70 (0.028) 0.25 (0.010)	0.416 (.0164) 0.400 (.0157)	26	2-50	0.38 (0.015)	0.38 (0.015)	1.14 (.045) 0.89 (.035)	.76 (.030)	.84
	1.90 (0.075)	5.08 [.200]	0.70 (0.028) 0.25 (0.010)	0.416 (.0164) 0.400 (.0157)	26	2-50	0.38 (0.015)	0.38 (0.015)	1.14 (.045) 0.89 (.035)	.76 (.030)	.84
	2.54 (0.100)	6.35 [.250]	0.80 (0.031) 0.25 (0.010)	0.526 (0.0207) 0.505 (0.0199)	24	2-50	0.51 (0.020)	0.51 (0.020)	1.52 (.060) 1.27 (.050)	.76 (.030)	.84
	3.18 (0.125)	6.35 [.250]	1.00 (0.039) 0.25 (0.010)	0.526 (0.0207) 0.505 (0.0199)	24	2-25	0.51 (0.020)	0.51 (0.020)	1.52 (.060) 1.27 (.050)	.76 (.030)	.84
	3.81 (0.150)	6.35 [.250]	1.00 (0.039) 0.25 (0.010)	0.526 (0.0207) 0.505 (0.0199)	24	2-20	0.51 (0.020)	0.51 (0.020)	1.52 (.060) 1.27 (.050)	.76 (.030)	.84
	5.08 (0.200)	6.35 [.250]	1.00 (0.039) 0.25 (0.010)	0.526 (0.0207) 0.505 (0.0199)	24	2-15	0.51 (0.020)	0.51 (0.020)	1.52 (.060) 1.27 (.050)	.76 (.030)	.84

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DIMENSIONS:

MM [INCHES]

0 PLC

1 PLC

2 PLC

3 PLC

4 PLC

ANGLES

± 1/2°

TOLERANCES UNLESS OTHERWISE SPECIFIED:

± -

± -

± -

± -

± -

± 1/2°

MATERIAL

-

FINISH

-

DWN

J. SCHWARTZ

28FEB01

CHK

E. FOX

28FEB01

APVD

E. FOX

28FEB01

PRODUCT SPEC

-

APPLICATION SPEC

-

WEIGHT

-

NAME

FLEXSTRIP PIN CONFIGURATIONS, GENERIC

SIZE

CAGE CODE

DRAWING NO

RESTRICTED TO

A3

00779

C-1474339

-

CUSTOMER DRAWING

SCALE

N.T.S.

SHEET

1 OF 4

REV

H1

STE

TE Connectivity

1470-19

(3/11)

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© COPYRIGHT — By —		ALL RIGHTS RESERVED.		GP		00		P	LTR	DESCRIPTION	DATE	DWN	APVD																						
									—	SEE SHEET 1	—	—	—																						
A — STRAIGHT PINS		B — RIGHT ANGLE PINS (BENT DOWN)		C — RIGHT ANGLE STAGGERED PINS (PIN 1 SHORT, BENT DOWN)		D — STRAIGHT ANGLE STAGGERED PINS (PIN 1 STRAIGHT)																													
STANDARD JUMPERS SMART DESCRIPTION				MANUFACTURING NOTE: MINIMUM GAP BETWEEN STRIPS				STANDARD LINE JOBS																											
AUTOMOTIVE USE ONLY FLEXSTRIP PRODUCT CODE INSULATION MATERIAL: N — NOMEX® P — POLYESTER T — TEFLON® K — KAPTON® CONDUCTOR PITCH: 1 — 1.27(.050) 2 — 2.54(.100) 3 — 3.18(.125) 4 — 3.81(.150) 5 — 5.08(.200) 6 — 1.90(.075) 7 — 2.00(.078) 8 — 1.25(.049) 9 — 1.00(.039) FS N — 1 2 A — 70 NUMBER OF CONDUCTORS PIN ARRANGEMENT (FOR BOTH ENDS) A THRU Z INSULATION LENGTH IN INCHES .50 MIN. — 30.0 MAX. IN .100 INCREMENTS PLUS, .25 AND .75				<table><tr><td>SK/A/Z</td><td>.75 INCH</td></tr><tr><td>LP</td><td>1.1 INCH</td></tr></table> MINIMUM CONDUCTOR COUNT PER STRIP FOR LINE JOBS <table><tr><th>PITCH</th><th>CONDUCTOR</th></tr><tr><td>1 1.27 (.050)</td><td>60</td></tr><tr><td>2 2.54 (.100)</td><td>60</td></tr><tr><td>3 3.18 (.125)</td><td>60</td></tr><tr><td>4 3.81 (.150)</td><td>50</td></tr><tr><td>5 5.08 (.200)</td><td>40</td></tr><tr><td>6 1.91 (.075)</td><td>60</td></tr><tr><td>7 2.0 (.078)</td><td>60</td></tr><tr><td>8 1.24 (.049)</td><td>60</td></tr><tr><td>9 1.0 (.039)</td><td>80</td></tr></table>				SK/A/Z	.75 INCH	LP	1.1 INCH	PITCH	CONDUCTOR	1 1.27 (.050)	60	2 2.54 (.100)	60	3 3.18 (.125)	60	4 3.81 (.150)	50	5 5.08 (.200)	40	6 1.91 (.075)	60	7 2.0 (.078)	60	8 1.24 (.049)	60	9 1.0 (.039)	80	FLEX STRIP MATERIAL: N — NOMEX® P — POLYESTER T — TEFLON® K — KAPTON® CONDUCTOR PITCH: 1 — 1.27(.050) 2 — 2.54(.100) 3 — 3.18(.125) 4 — 3.81(.150) 5 — 5.08(.200) 6 — 1.90(.075) 7 — 2.00(.078) 8 — 1.25(.049) 9 — 1.00(.039) THE FOLLOWING ORDERING CODE IS A SPECIAL FOR TE CONNECTIVITY GERMANY DESCRIBING A STRIP OF ANY INSULATION MATERIAL, ANY PITCH AND ANY INSULATION LENGTH WITH A 11.00[.433] MIN PIN LENGTH UNLESS OTHERWISE SPECIFIED:— FS X—X X J—A A W FS N 1 — 2 SK (LP) LONG PIN (OPTIONAL) LINE JOB DESIGNATOR (SK, A, Z) INSULATION LENGTH IN INCHES .5 MIN. — 30.0 MAX. IN .100 INCREMENTS, PLUS .25 & .75			
SK/A/Z	.75 INCH																																		
LP	1.1 INCH																																		
PITCH	CONDUCTOR																																		
1 1.27 (.050)	60																																		
2 2.54 (.100)	60																																		
3 3.18 (.125)	60																																		
4 3.81 (.150)	50																																		
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7 2.0 (.078)	60																																		
8 1.24 (.049)	60																																		
9 1.0 (.039)	80																																		
Nomex®, Teflon® and Kapton® are trademarks of E. I. DuPont de Nemours.				THIS DRAWING IS A CONTROLLED DOCUMENT.				DWN J. SCHWARTZ 28FEB01 CHK E. FOX 28FEB01 APVD E. FOX 28FEB01 PRODUCT SPEC APPLICATION SPEC WEIGHT —																											
DIMENSIONS: MM [INCHES]				TOLERANCES UNLESS OTHERWISE SPECIFIED:				NAME																											
				0 PLC ± — 1 PLC ± — 2 PLC ± — 3 PLC ± — 4 PLC ± — ANGLES ± 1/2°				FLEXSTRIP PIN CONFIGURATIONS, GENERIC																											
MATERIAL —				FINISH —				SIZE CAGE CODE DRAWING NO RESTRICTED TO																											
								A3 00779 C=1474339																											
				CUSTOMER DRAWING				SCALE N.T.S. SHEET 2 OF 4 REV H1																											

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SEE SHEET 1

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NORMAL CONDUCTOR PITCH		1.00 (.039)	1.25 (.049)	1.27 (.050)	1.90 (.075)	2.00 (.078)	2.54 (.100)	3.18 (.125)	3.81 (.150)	5.08 (.200)
WIRE GAUGE		AWG 28	AWG 28	AWG 28	AWG 26	AWG 26	AWG 24	AWG 24	AWG 24	AWG 24
NOMINAL WIRE DIAMETER		.32(.0126)	.32(.0126)	.32(.0126)	.40(.0159)	.40(.0159)	.51(.0201)	.51(.0201)	.51(.0201)	.51(.0201)
CURRENT RATING		8	8	8	8	8	8	8	8	8
VOLTAGE RATING		8	8	8	8	8	8	8	8	8
MAX NUMBER OF CONDUCTORS PER JUMPER		8	8	8	8	8	8	8	8	8
MIN BREAKDOWN VOLTAGE @ 1 MIN		8	8	8	8	8	8	8	8	8
INSULATION RESISTANCE (GND. SIG. GND) 305 (12') SAMPLE @ 500VDC	P N T K	8	8	8	8	8	8	8	8	8
CAPACITANCE (pf / 50.8 (12') LENGTH) (GND, SIG, GND) (AVERAGE)	P N T K	8	8	8	8	8	8	8	8	8
CHARACTERISTIC IMPEDANCE (GND. SIG. GND) (AVERAGE)	P N T K	8	8	8	8	8	8	8	8	8
APPLICATION TEMP RANGE (C°) (FOR SOLDERING)	P N T K	200 / 4 sec 200 / 4 sec 240 / 4 sec 240 / 4 sec	200 / 4 sec 200 / 4 sec 240 / 4 sec 240 / 4 sec	200 / 4 sec 200 / 4 sec 240 / 4 sec 240 / 4 sec	200 / 4 sec 200 / 4 sec 240 / 4 sec 240 / 4 sec	200 / 4 sec 200 / 4 sec 240 / 4 sec 240 / 4 sec	250 / 4 sec 250 / 4 sec 260 / 5 sec 260 / 5 sec	250 / 4 sec 250 / 4 sec 260 / 5 sec 260 / 5 sec	250 / 4 sec 250 / 4 sec 260 / 5 sec 260 / 5 sec	250 / 4 sec 250 / 4 sec 260 / 5 sec 260 / 5 sec
OPERATING TEMPERATURE (C°) 11	P N T K	-40 to 105 (For all Conductor Pitches) -40 to 125 (For all Conductor Pitches) -40 to 150 (For all Conductor Pitches) -40 to 150 (For all Conductor Pitches)								
MINIMUM BEND RADIUS 7	P N T K	3.18mm (For all Conductor Pitches) 3.18mm (For all Conductor Pitches) 3.18mm (For all Conductor Pitches) 3.18mm (For all Conductor Pitches)								
UL STYLE NUMBER	P N T K	2639 (For all Conductor Pitches .100 and above) 5456 (For all Conductor Pitches .100 and above) 2928 (For all Conductor Pitches .100 and above) 2927 (For all Conductor Pitches .100 and above)								

ABR.	MATERIAL	SPECIFICATION
	COPPER WIRE	100-1577
P	POLYESTER	100-1575
N	NOMEX®	100-1758
T	TEFLON®	100-1574
K	KAPTON®	100-1576

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DIMENSIONS:
MM [INCHES]

TOLERANCES UNLESS
OTHERWISE SPECIFIED:

0 PLC ± -
1 PLC ± -
2 PLC ± -
3 PLC ± -
4 PLC ± -
ANGLES ± 1/2°

MATERIAL

-

FINISH

-

DWN
J. SCHWARTZ
28FEB01

CHK
E. FOX
28FEB01

APVD
E. FOX
28FEB01

PRODUCT SPEC

APPLICATION SPEC

WEIGHT

TE Connectivity

FLEXSTRIP PIN CONFIGURATIONS, GENERIC

-

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SIZE

CAGE CODE

DRAWING NO

RESTRICTED TO

CUSTOMER DRAWING

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N.T.S.

4 of 4

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1470-19 (3/11)