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GP00

LOC

DIST

REVISIONS

P

LTR

DESCRIPTION

DATE

DWN

APVD

H1

ECR-11-025464

16DEC11

RK

BVH

NOTES:

1

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.

2

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].

3

DELETED

4

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

5

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)

7

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

8

PER 108-2135.

9.

TOOL MARKS PERMISSIBLE ON BENDS. NO EXPOSED COPPER.

10

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

11

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.

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①

②

F

(MID-PIN THICKNESS)
SEE CHART

D

(MAX THICKNESS)

E

(PIN DIAMETER)

C

(MARGIN)

T

NO NICKS ON INSULATION

X

NO TRANSITION OUTSIDE INSULATION AREA

Y

(CONDUCTOR WIDTH)

JUMPER WIDTH

Z

(2 PLC)

V

(MAX ADHESIVE FLOW)
NOT INCLUDED IN DIM B

JUMPER LENGTH

R ±1.524(.060)

(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 (.0207) 0.505 (.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 (.0207) 0.505 (.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 (.0207) 0.505 (.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 (.0207) 0.505 (.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]

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 -

CUSTOMER DRAWING

STE

TE Connectivity

NAME FLEXSTRIP PIN CONFIGURATIONS, GENERIC

SIZE A3 CAGE CODE 00779 DRAWING NO C-1474339 RESTRICTED TO -

SCALE N.T.S. SHEET 1 OF 4 REV H1

1470-19 (3/11)

4		3		2		1	
THIS DRAWING IS UNPUBLISHED.				RELEASED FOR PUBLICATION			
© COPYRIGHT — By — ALL RIGHTS RESERVED.				LOC GP		DIST 00	
				P		LTR	
				DESCRIPTION		DATE	
				SEE SHEET 1		—	
				DWN		APVD	
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)	
 PIN 1 3.18±.76 (.125±.030)		 PIN 1 .5(.020) 3.18±.76 (.125±.030) R.5(.020) MIN.		 PIN 1 .5(.020) 3.18±.76 (.125±.030) R.5(.020) MIN. 2.54±.26 [.100±.010] DIM "B"		 PIN 1 DIM "B" 2.54±.26 (.100±.010) .5(.020) 3.18±.76 (.125±.030) R.5(.020) MIN.	
STANDARD JUMPERS SMART DESCRIPTION				STANDARD LINE JOBS			
AUTOMOTIVE USE ONLY				MANUFACTURING NOTE:			
FLEXSTRIP PRODUCT CODE				MINIMUM GAP BETWEEN STRIPS			
INSULATION MATERIAL: N — NOMEX® P — POLYESTER T — TEFLON® K — KAPTON®				SK/A/Z .75 INCH LP 1.1 INCH			
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)				MINIMUM CONDUCTOR COUNT PER STRIP FOR LINE JOBS			
PIN ARRANGEMENT (FOR BOTH ENDS) A THRU Z				PITCH CONDUCTOR			
INSULATION LENGTH IN INCHES .50 MIN. — 30.0 MAX. IN .100 INCREMENTS PLUS, .25 AND .75				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			
				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)			
				MATERIAL: N — NOMEX® P — POLYESTER T — TEFLON® K — KAPTON®			
				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			
Nomex®, Teflon® and Kapton® are trademarks of E. I. DuPont de Nemours.				THIS DRAWING IS A CONTROLLED DOCUMENT.			
DIMS: MM [INCHES]				TOLERANCES UNLESS OTHERWISE SPECIFIED:			
MATERIAL				FINISH			
DWN J. SCHWARTZ 28FEB01				CHK E. FOX 28FEB01			
APVD E. FOX 28FEB01				PRODUCT SPEC			
APPLICATION SPEC				WEIGHT			
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

CUSTOMER DRAWING

SCALE
N.T.S.

SHEET
4 OF 4

REV
H1

TE Connectivity

NAME
FLEXSTRIP PIN CONFIGURATIONS, GENERIC

SIZE
A3

CAGE CODE
00779

DRAWING NO
C-1474339

RESTRICTED TO

1470-19 (3/11)