

971-SLR-THR-1,1 LOW INSERTION FORCE, WITH 1.1 MM PLUG PIN, THROUGH HOLE REFLOW (THR) AND THROUGH HOLE WAVE (THW) PCB PIN STRIPS WITH 1.1 MM PCB PINS
Often imitated. Never equaled.

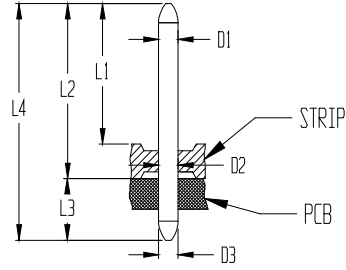
THESE PIN STRIPS HAVE A TYPICAL INSERTION FORCE OF 125 GRAMS (4 OZ.) PER POLE WHEN MATED WITH 950-FL & 950-NLFL

THESE PIN STRIPS HAVE A TYPICAL INSERTION FORCE OF 70 GRAMS (2.5 OZ.) PER POLE WHEN MATED WITH 115-F

HOW TO ORDER

- 1- CHOOSE THE TYPE OF STRIP. IN THIS CASE 971-SLR-THR-1,1 IS MANDATORY
- 2- CHOOSE THE SHAPE OF PIN AS PER DIAGRAM (D1, D2, D3, L2, L3, L4)
- 3- CHOOSE THE TYPE OF PLATING AS TABLE 2

TYPE: 1.1-1.1-1.1



- GREEN: STANDARD, WELL KNOWN PRODUCT
- BLUE: AVAILABLE ON SPECIAL REQUEST
- YELLOW: NON-STD, OR PHASING OUT

31-Mar-10

TABLE 1 PIN & STRIP CHOICES				PIN DIAMETER PLUG	PIN DIAMETER MIDDLE	PIN DIAMETER PCB END	PIN'S PLUG END VS STRIP TOP	PIN'S PLUG END VS PCB BOTTOM	PIN'S PCB END VS STRIP BOTTOM	TOTAL PIN LENGTH	APPLICATION STRIP DESCRIPTION
APPLICATION STRIP	BLANK PIN ITEM NUMBER	TIN PLATED PIN ITEM NUMBER	SHAPE	D1	D2	D3	L1	L2	L3	L4	D-D1xD2xD3mm-L-L1xL2xL3xL4mm
971-SLR-THR-1,1/02 TO 12	PIN971-060 50.477.529	PIN971-061 60.477.529	STANDARD	1.1	1.1	1.1	7.3	9.1	3.2	12.3	D-1.1x1.1x1.1mm-L-7.3x9.1x3.2x12.3mm
971-SLR-THR-1,1/02 TO 12-6.1	PIN971-060 50.477.529	PIN971-061 60.477.529	STANDARD offset	1.1	1.1	1.1	6.1	7.9	4.4	12.3	D-1.1x1.1x1.1mm-L-6.1x7.9x4.4x12.3mm
971-SLR-THR-1,1/02 TO 12-11	PIN110-045 13.497.044	PIN110-047 13.497.051	LONG	1.1	1.1	1.1	11	12.8	4.4	17.2	D-1.1x1.1x1.1mm-L-11x12.8x4.4x17.2mm
971-SLR-THR-1,1/02 TO 12-14	PIN971-008 13.497.019	PIN971-009 13.497.021	SPECIAL APPS	1.1	1.1	1.1	14	15.8	4.4	20.2	D-1.1x1.1x1.1mm-L-14x15.8x4.4x20.2mm
971-SLR-THR-1,1/02 TO 12-14.7	PIN971-014 13.497.036	PIN971-015 13.497.037	SPECIAL APPS	1.1	1.1	1.1	14.7	16.5	4.4	20.9	D-1.1x1.1x1.1mm-L-14.7x16.5x4.4x20.9mm

TABLE 2 CHOOSE A PIN PLATING

TIN PLATING AT 5 MICROMETERS IS STANDARD FOR TIN PLATING LEAVE BLANK

- FOR SILVER 5 MICROINCHES ADD -S05
- FOR SILVER 12 MICROINCHES ADD -S12
- FOR SILVER 30 MICROINCHES ADD -S30
- FOR GOLD 5 MICROINCHES ADD -G05
- FOR GOLD 12 MICROINCHES ADD -G12
- FOR GOLD 30 MICROINCHES ADD -G30

TABLE 3 PIN APPLICATION GUIDELINES & SPECIFICATIONS

RECOMMENDED PCB HOLE DIAMETER FOR HAND PLACEMENT IS 1.4 MM FOR THIS 1.1 MM PIN

PCB HOLE ALIGNMENT STAGGER 0.3 MM MAXIMUM FOR 1.1 MM PIN AND 1.4 MM PCB PIN HOLE COMBINATION, FOR HAND PLACEMENT.

RECOMMENDED PCB HOLE DIAMETER FOR AUTOMATED PICK & PLACE IS 1.6 MM FOR THIS 1.1 MM PIN, STRAIGHT ALIGNMENT.

SUITABLE FOR THROUGH HOLE WAVE AND THROUGH HOLE REFLOW.

5 mm pitch SMT & THR connectors without anchoring elements for automatic handling

Table # 1 GENERAL GUIDELINE FOR SIZING EMBOSSED CARRIER TAPING

Reference standard: EIA - 481 - C		
Number of poles	Length of connector (mm)	Tape size for single row (mm)
2	10 to 12	24
3	15 to 17	24
4	20 to 22	32
5	25 to 27	44
6	30 to 32	44
7	35 to 37	56
8	40 to 42	56
9	45 to 47	72
10	50 to 52	72
11	55 to 57	72
12	60 to 62	88
13	65 to 67	88
14	70 to 72	88
15	75 to 77	104
16	80 to 82	104
17	85 to 87	104
18	90 to 92	120
19	95 to 97	120
20	100 to 102	120
21	105 to 107	120
22	110 to 112	136
23	115 to 117	136
24	120 to 122	136

Table # 2 Connector Pole Quantity and Length

Type	Poles	Length (mm)
120-M-211-SMD	2 to 12	No. poles x 5 + 2mm
120-M-211-THR	2 to 24	No. poles x 5 + 2mm
120-M-221-SMD	2 to 24	No. poles x 5 + 2mm
120-M-221-THR	2 to 24	No. poles x 5 + 2mm
971-SLK-SMD	2 to 12	No. poles x 5
971-SLK-THR	2 to 12	No. poles x 5
971-SLR-SMD	2 to 12	No. poles x 5
971-SLR-THR	2 to 12	No. poles x 5
971-SLT-SMD	2 to 12	No. poles x 5
950-THR	2 to 12	No. poles x 5
970-THR	2 to 12	No. poles x 5 + 1mm

Table # 3 Reel sizes, hub and overall diameters:

Carrier tape width mm	Minimum reel hub mm diam	Maximum reel overall mm diam	Carrier tape width inch	Minimum reel hub inch diam	Maximum reel overall inch diam	Preferred mfg. Method
12	50	330	0.47	2	13	embossed
16	50	330	0.63	2	13	embossed
24	50	360	0.94	2	14	embossed
32	50	360	1.26	2	14	embossed
44	50	360	1.73	2	14	embossed
56	100	609	2.2	4	24	embossed
72	80	609	2.83	3	24	embossed
88	80	609	3.46	3	24	embossed
104	80	609	4.09	3	24	embossed
120	80	609	4.72	3	24	embossed
136	80	609	5.35	3	24	embossed
152	80	609	5.98	3	24	embossed
168	80	609	6.61	3	24	embossed

Most popular Sizes

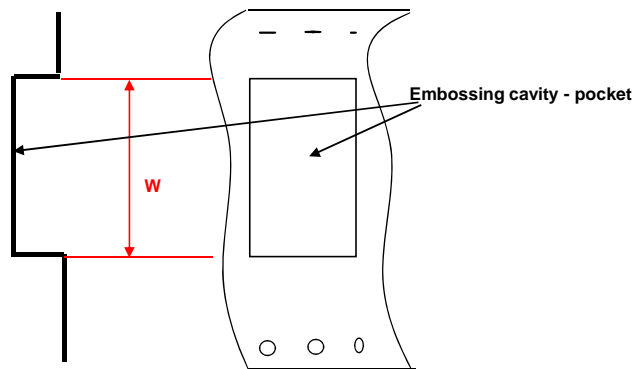
EXPLANATORY NOTES FOR REEL SIZE:

- * Typical product quantity packed in tape & reel is 200 - 300 parts per reel.
- * Quantities per reel depend of the product shape, reel's hub diameter, reel's overall diameter, the amount of empty pockets in the trailer, weight limitations and other considerations.
- * As shown in table # 1 the most popular sizes for Tape & Reel are: 44 mm and 56 mm.
- * WECO builds customized Tape & Reels addressing accomodation of two or more similar products into the same cavity.
- * The trailer is the last end out of the reel. It is inside near the hob and typically 160 mm (6 in.) long. The leader is the first end out of the reel. It is on the outside of the reel and typically 390 mm (15 in.) to 560 mm (22 in.) long.
- * Double or triple row reels can be developed if requested

GENERAL RULE FOR TAPE WIDTH:

- * Because of the depth and draft angle a wider tape than the standard may be required
- * Depending on shape a narrower tape may be adequate or a wider tape may be required.
- * Depending on pocket design draft angle is required.
- * 44 mm and 56 mm tapes tend to be practical.
- * 44 mm and 56 mm loaders are usually easily available and connectors fit well into these.
- * 32, 44, 56, 72, 88 & 104 mm tapes have two sets of spocket holes.
- * Applies to deep embossed, adhesive sealed carrier tape and to mechanically interlocked tape.
- * **Tape width** shall be chosen as per the **table # 4** (ANSI/EIA-481-C, Table 1):

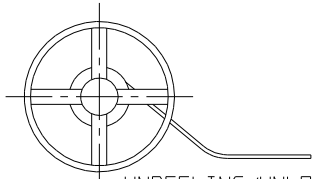
Table # 4	Pocket width
Tape Size (mm)	W max (mm)
24	20
32	23
44	35
56	46
72	60
88	76
104	91
120	107
136	123
152	139
168	153
184	169
200	185



Examples of computing:

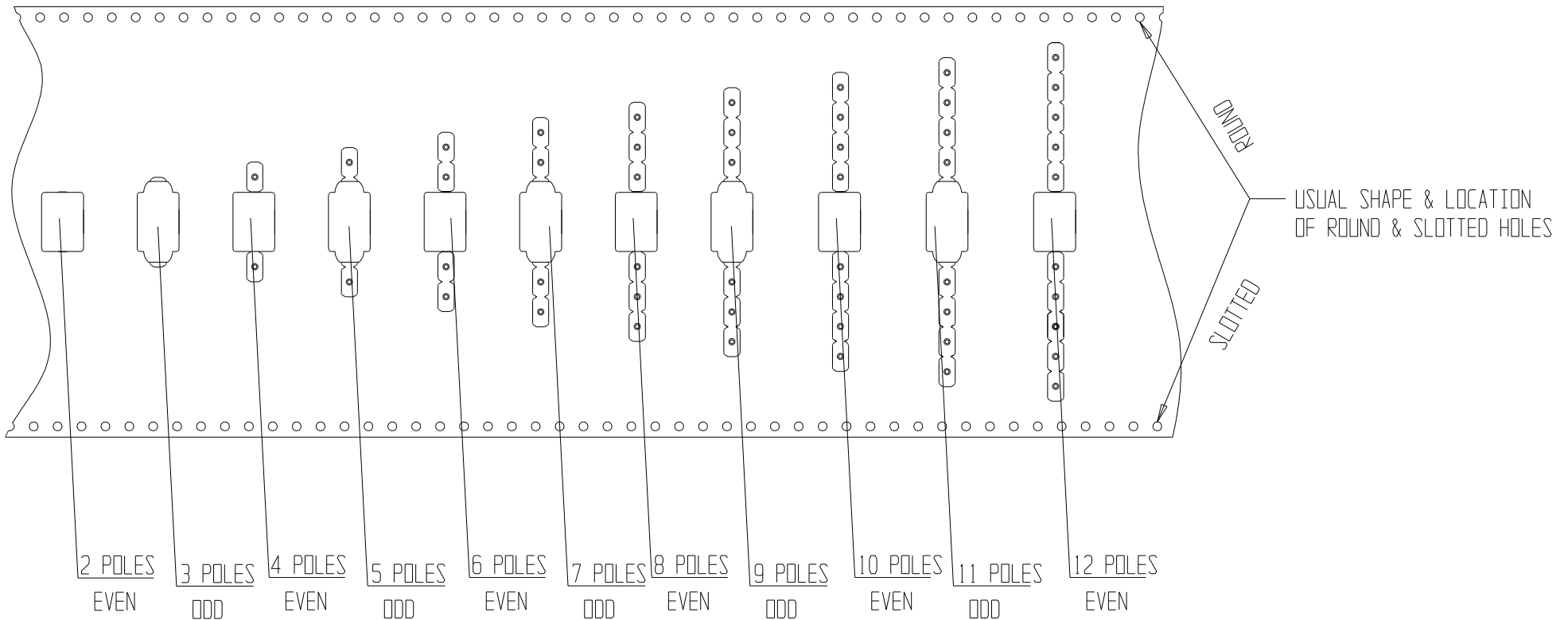
- * 120-M-211-SMD/05 --> From Table#2 L = 27 mm length, thus pocket width W = 27 mm which fits within Wmax 35 mm (Table#4), from here Tape Size = 44 mm.
- * 971-SLR-SMD/08 --> From Table#2 L = 40 mm length, thus pocket width W = 40 mm which fits within Wmax 46 mm (Table#4), from here Tape Size = 56 mm.
- * 970-THR/10 --> From Table#2 L = 51 mm length, thus pocket width W = 51 mm which fits within Wmax 60 mm (Table#4), from here Tape Size = 72 mm.

- POSITIONING IN T&R POCKET FOR:
- 971-SLR-SMD
 - 971-SLR-SMD-1,3
 - 971-SLR-THR
 - 971-SLR-THR-1,1X1
 - 971-SLR-THR-1,1
 - 971-SLR-THR-1,3
 - 971-SLT-SMD



UNREELING/UNLOADING DIRECTION AT CUSTOMER

UNREELING/UNLOADING DIRECTION AT CUSTOMER



LOADING DIRECTION AT WECO