R91Z SERIES:

1.27mm PITCH MICRO-STRIP ELECTRIC CONNECTOR CATALOGUE

BRIEF INTRODUCTION

- Plug with elastic twisted wire pins, receptacle with rigid sockets.
- 1.27mm pitch, single row.
- Number of contacts: 2~60.
- Many types of termination, such as crimping, soldering, straight and right angle PCB soldering and surface mounting PCB.
- Quick locking devices or guiding devices of plug and receptacle can be chosen.
- Comply with standard: MIL-DTL-83513

MAIN TECHNICAL CHARACTERISTIC

Electrical performance		Environmental performance	
Current rating	≤3A	Operating temperature	-55℃ ~ +125℃
Withstanding voltage	600V,RMS,60Hz	Vibration	10~2000Hz,196m/s²
Insulation resistance	≥5000MΩ @500V DC	Shock	735m/s²
Mechanical performance		Other performance	
Durability	500 cycles	Adaptive wire size	Standard #26AWG

PART NUMBER DEISCRIPTION

R91Z	–	1	D1	–	4	–	32	3	–	3	0
①		②	③		④		⑤	⑥		⑦	⑧

① Series name: R91Z ─ 1.27mm microminiature strip connector

② Number of contact rows: 1 - single row

③ Structure types:

FOR PLUG	FOR RECEPTACLE
11 Straight, with mounting holes	21 Straight, with mounting holes
31 Straight, without mounting holes	41 Straight, without mounting holes
51 With mounting holes, right angle, 1.27mm offset for two rows of soldering pin	61 With mounting holes, right angle, 1.27mm offset for two rows of soldering pin
71 With mounting holes, right angle, 2.54mm offset for two rows of soldering pin	81 With mounting holes, right angle, 2.54mm offset for two rows of soldering pin
91 Without mounting holes, right angle, 1.27mm offset for two rows of soldering pin	A1 Without mounting holes, right angle, 1.27mm offset for two rows of soldering pin
B1 Without mounting holes, right angle, 2.54mm offset for two rows of soldering pin	C1 Without mounting holes, right angle, 2.54mm offset for two rows of soldering pin
D1 With mounting holes, right angle, single row of soldering pin	E1 With mounting holes, right angle, single row of soldering pin
F1 Without mounting holes, right angle, single row of soldering pin	G1 Without mounting holes, right angle, single row of soldering pin
H1 Without mounting holes, straight, 2.54mm offset for two rows of soldering pin	J1 Without mounting holes, straight, 2.54mm offset for two rows of soldering pin

④ Number of contacts: 002~062

(Indicated by 3 digits; When choosing hardware or mounting holes, the maximum number of contacts will be reduced)

⑤ Contacts and types of termination:

FOR PLUG	FOR RECEPTACLE
11 Pin, straight, solder cup	21 Socket, straight, solder cup
12 Pin, straight, PCB leads, 2.8mm length of soldering pin	22 Socket, straight, PCB leads, 2.8mm length of soldering pin
13 Pin, straight, PCB leads, 3.8mm length of soldering pin	23 Socket, straight, PCB leads, 3.8mm length of soldering pin
16 Pin, crimped wire	26 Socket, crimped wire
32 Pin, right angle, PCB leads, 2.8mm length of soldering pin	43 Socket, right angle, PCB leads, 2.8mm length of soldering pin
33 Pin, right angle, PCB leads, 3.8mm length of soldering pin	44 Socket, right angle, PCB leads, 3.8mm length of soldering pin
51 Pin, surface mounting PCB, 1mm length of soldering pin	

⑥ Contacts plating: 1 - crimped wire or solder cup ; 3 - gold plating of soldering PCB contacts

⑦ Locking devices or guiding devices:

FOR PLUG	FOR RECEPTACLE
00 None	00 None
01～62 Latch box, side mounted （cavity number location)	01～62 Latch spring, side mounted (cavity number location)
64 One guide hole（centered cavity）	61 One guide pin（centered cavity）
65 One guide hole（first cavity）	62 One guide pin（first cavity）
66 One guide hole（last cavity）	63 One guide pin（last cavity）
68 Two guide holes（two end cavities）	67 Two guide pins（two end cavities）
70 Two latch boxes（two end cavities）	71 Two latch spring（two end cavities）

⑧ Wiring：00 None

×× Wiring（see wiring codes table）

Notes:

- When the number of contacts N is even number, center cavity is N/2+1
- When the number of contacts N is odd number, center cavity is (N+1)/2+1

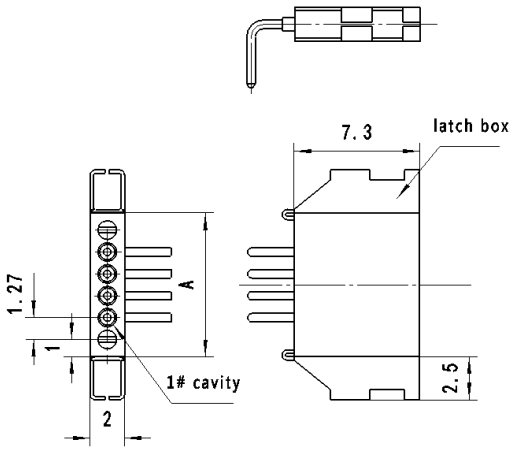
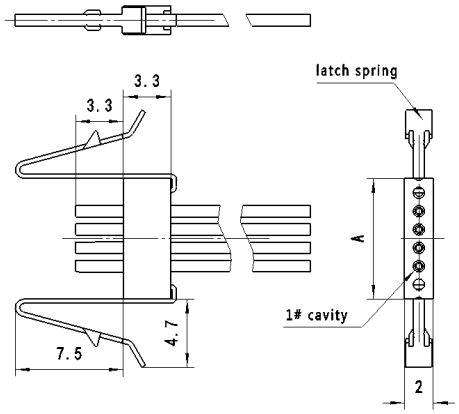
WIRING CODES REFERENCE TABLE

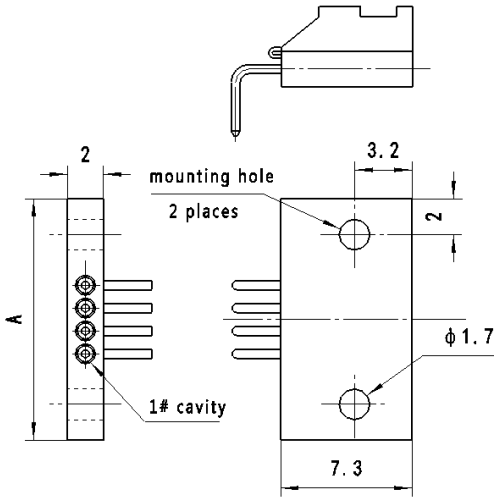
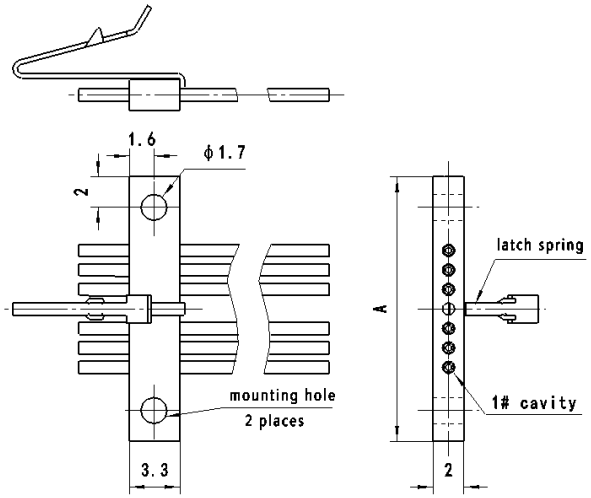
Code	Size mm^2	Color	Length mm	Code	Size mm^2	Color	Length mm	Code	Size mm^2	Color	Length mm
WA	0.15	Multicolor	150	**WN**	0.12	Multicolor	150	**XA**	0.07	Multicolor	150
WB	0.15	Multicolor	300	**WP**	0.12	Multicolor	300	**XB**	0.07	Multicolor	300
WC	0.15	Multicolor	460	**WQ**	0.12	Multicolor	460	**XC**	0.07	Multicolor	460
WD	0.15	Multicolor	920	**WR**	0.12	Multicolor	920	**XD**	0.07	Multicolor	920
WE	0.15	White	150	**WS**	0.12	White	150	**XE**	0.07	White	150
WF	0.15	White	300	**WT**	0.12	White	300	**XF**	0.07	White	300
WG	0.15	White	460	**WU**	0.12	White	460	**XG**	0.07	White	460
WH	0.15	White	920	**WU1**	0.12	White	500	**XH**	0.07	White	920
WJ	0.15	Yellow	150	**WV**	0.12	White	920	**XJ**	0.07	Yellow	150
WK	0.15	Yellow	300	**WW**	0.12	Yellow	150	**XK**	0.07	Yellow	300
WL	0.15	Yellow	460	**WX**	0.12	Yellow	300	**XL**	0.07	Yellow	460
WM	0.15	Yellow	920	**WY**	0.12	Yellow	460	**XM**	0.07	Yellow	920
				WZ	0.12	Yellow	920				

Notes:

- The wire part number is AFR-250 ;
- Multicolor stands for the wire color for each cavity is arranged and cycled in a certain sequence: black, brown, red, orange, yellow, green, blue, purple, grey, white……

OUTLINE DIMENSIONS

PLUG (without mounting holes)	RECEPTACLE (without mounting holes)
 Example: R91Z-1F1-004-323-7000	 Example: R91Z-141-004-261-71WA

PLUG (with mounting holes)	RECEPTACLE (with mounting holes)
 Example: R91Z-1D1-004-323-0300	 Example: R91Z-121-006-261-04WA

Calculation method of Connector Length"A"

Number of contact×1.27 : _____

+fixed length : 0.73

+3.81/hole (with mounting hole) : _____

+1.27/piece (with locking devices) : _____

+1.27/piece (with guiding devices) : _____

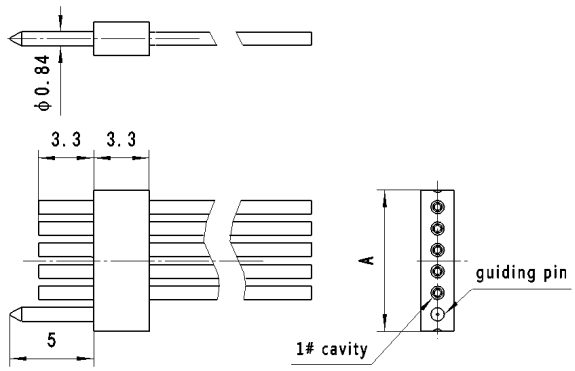
Total length"A"= _____

Note:

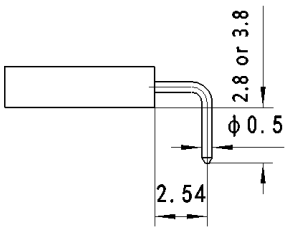
The maximum length : 79.47mm

The maximum number of contact : 62 (including accessories and mounting holes)

Guide pin dimensions

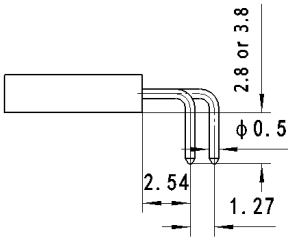


TERMINATIONS



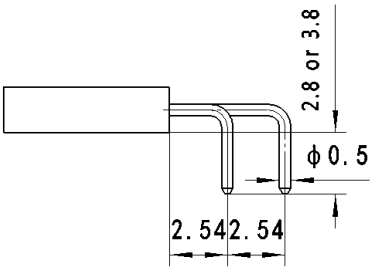
right angle PCB ,

one row of soldering pins



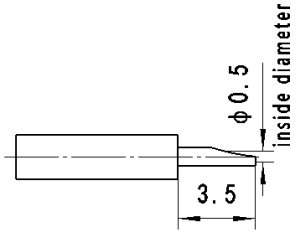
right angle PCB ,

1.27mm offset of two rows of soldering pins

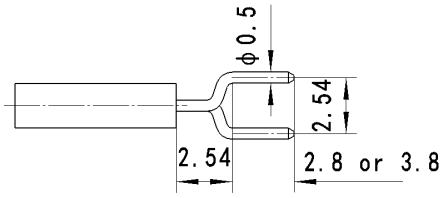


right angle PCB ,

1.27mm offset of two rows of soldering pin

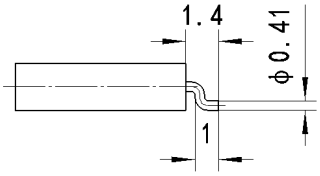


solder cup



straight PCB ,

2.54mm offset of two rows of soldering pin

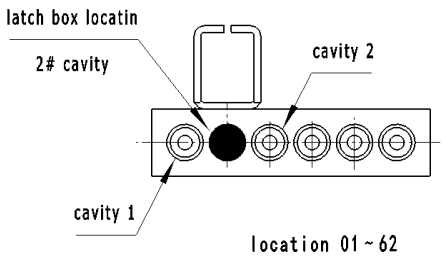


surface mount PCB

(Only for plug)

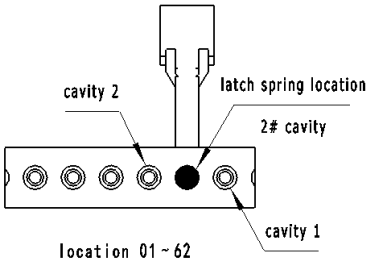
THE MOUNTING LOCATION OF LOCKING DEVICES

Plug with latch box

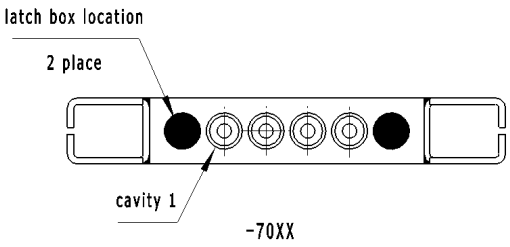


Example: R91Z-131-005-161-02WN

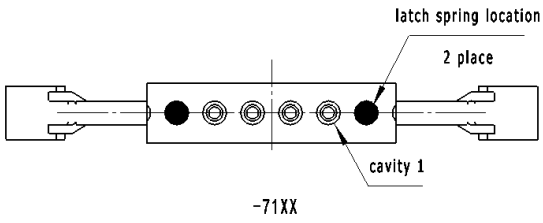
Receptacle with latch spring



Example: R91Z-141-005-261-02WN



Example: R91Z-131-004-161-70WN



Example: R91Z-141-004-261-71WN