



# MIL-DTL-32139 Nano D-sub Connectors

## R06 Crimp Contact Series

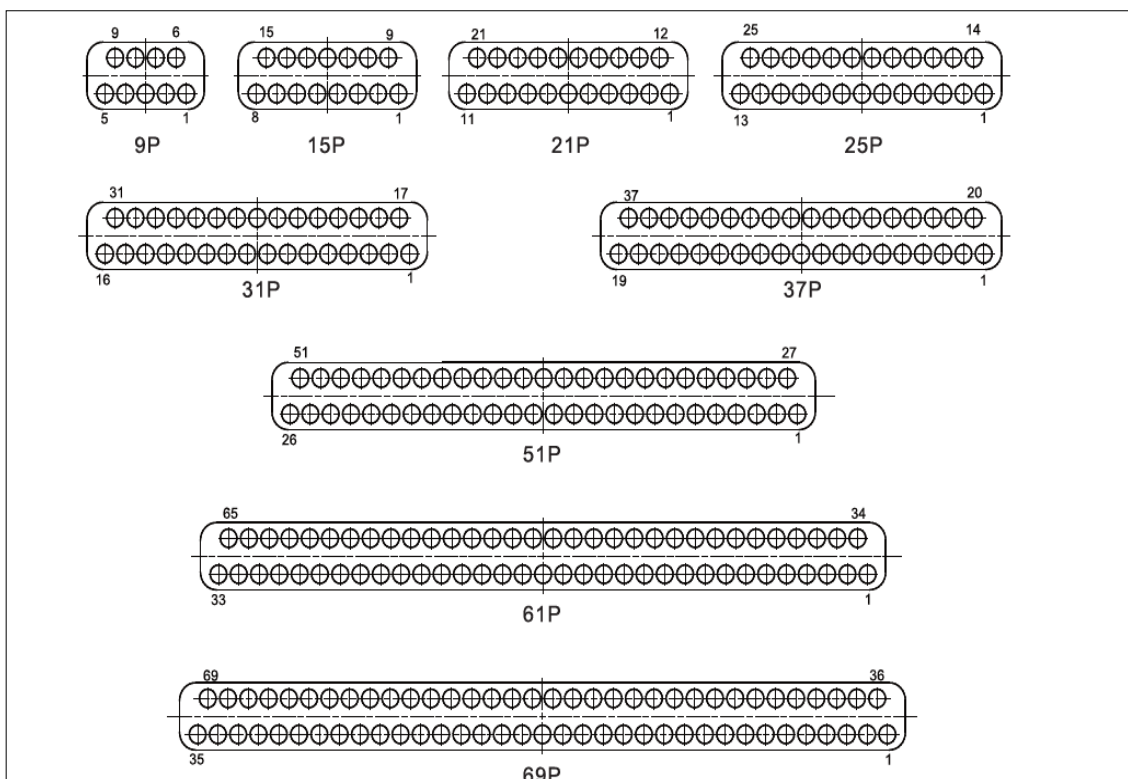
### Brief introduction

- Contacts:9,15,21,25,31,37,51,65,69
- Twist flexible micro pin (twist pin), 0.635mm pitch, micro miniature outline dimension
- Screw nut locking, it is gently when insert and extract, stably locked
- It is used for all kinds for electric circuit system interconnection which have high density, micro, light, highly reliable requirement, it can meet light and miniaturize demand
- Plug with twist pin, receptacle with socket, free terminal with locking screw, fixed terminal with nut, standard mated connector locked by screw and nut
- Standard: MIL-DTL-32139
- The sectional area of crimp conductive cable is 0.035mm<sup>2</sup>
- Undefined tolerance is±0.13

### Specification

- |   |                                 |                          |                |
|---|---------------------------------|--------------------------|----------------|
| ■ Environment:  | -55℃~+125℃                      | ■ Contact resistance:    | ≤21mΩ          |
| ■ Vibration:  | 10Hz~2000Hz 196m/s <sup>2</sup> | ■ Insulation resistance: | ≥5000MΩ 100VDC |
| ■ Shock:  | 980m/s <sup>2</sup> 6ms         | ■ Dielectric strength:   | 250V           |
| ■ Rated current:  | 1A                              | ■ Machine life:          | 200 times      |
| ■ Random vibration: power spectrum density 0.4G <sup>2</sup> /Hz, r.m.s value of total acceleration 23.1G |                                 |                          |                |

### Contact layout



Remark: The above layout is view from plug mate side end face

## How to order

<b>Series</b>	R06	-2	2	1	-C	2	-9	PI	0	-TH
<b>Contact row:</b>										
2 — tow rows										
<b>Shell plating:</b>										
2 — nickel plating										
<b>Contact plating:</b>										
1 — gold plating										
<b>Tail termination type :</b>										
C — crimp										
<b>Mounting style:</b>										
1 — free mounted										
2 — vertical mounted										
3 — horizontal mounted										
4 — crimp siamese										
5 — nut mounted										
6 — Flange mounted										
7 — Floating mounted										
<b>Contact number:</b>										
9, 15, 21, 25, 31, 37, 51, 65, 69										
<b>Contact type</b>										
PI — pin in plug										
RH — socket in receptacle										
PP — plug interconnect plug										
PS — plug interconnect receptacle										
SS — receptacle interconnect receptacle										
<b>Tail cover :</b>										
0 — without tail cover										
1 — with tail cover										
<b>Locking component type:</b>										
00 — without locking component										
JC — locking screw(straight slot)										
JC1 — locking screw(hex, not recommend )										
TH — connect nut										
NH — guide hole with nut mounted										

## Choose mating connector

- When choosing mating connector with locking accessories usually choose the locking component which one side with connect nut(TH), the other side with locking screw(JC).
- When choosing product with guide accessories,connector without locked component but only with guide component,it need fix on mounting panel after mated,for avoiding connector take off. When choosing mating connector with guide components usually choose the guide component which one side with guide pin, the other side with guide hole

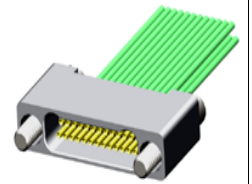
# Free Mounted Crimp Series

## Order marks

<b>Series</b>	R06	-2	2	1	-C	1	-25	PI	0	-JC
<b>Contact row:</b> 2 — tow rows										
<b>Shell plating:</b> 2 — nickel plating										
<b>Contact plating:</b> 1 — gold plating										
<b>Termination type :</b> C — crimp										
<b>Mounting style:</b> 1 — free mounted										
<b>Contact number:</b> 9、15、21、25、31、37、51、65、69										
<b>Contact type</b> PI — pin in plug      RH — socket in receptacle										
<b>Tail cover :</b> 0 — without tail cover										
<b>Locking type:</b> JC — locking screw(straight slot, C dimension=1.5mm) JC1 — locking screw(hex, not recommend , C dimension=2.1mm)										



plug

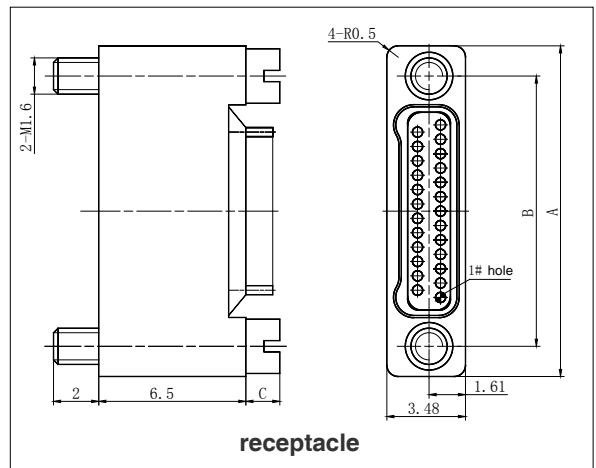
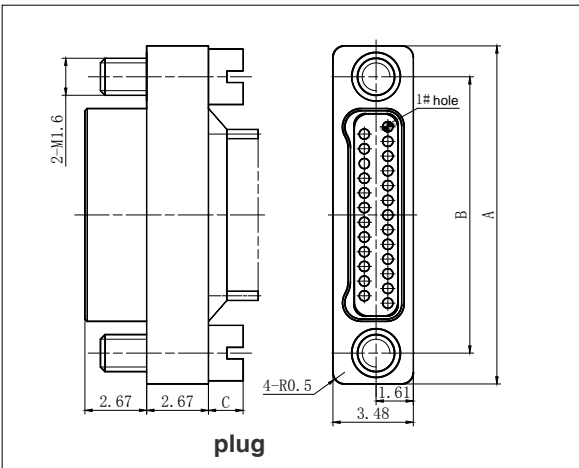


receptacle

### Remark

- Locking screw fixed on the outer shell, can't disassembly
- Connector is free mounted, not fixed, usually mated with connector which have nut
- Recommended JC(straight slot screw) types of screws, tight by miniature straight screwdriver
- When choose JC1(hex) type of screws, tight by 1.27mm subtense hex screwdriver.

## Outline dimension




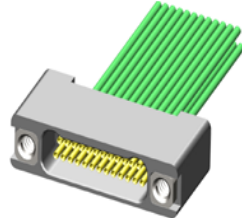
Pin count	Dimension		Pin count	Dimension		Pin count	Diension	
	A	B		A	B		A	B
9pins	9.63	6.86	15pins	11.53	8.76	21pins	13.44	10.67
25pins	14.71	11.94	31pins	16.61	13.84	37pins	18.52	15.75
51pins	22.96	20.19	65pins	27.41	24.64	69pins	28.68	25.91

Remark: All dimensions are in mm



## Vertical Mounted Crimp Series

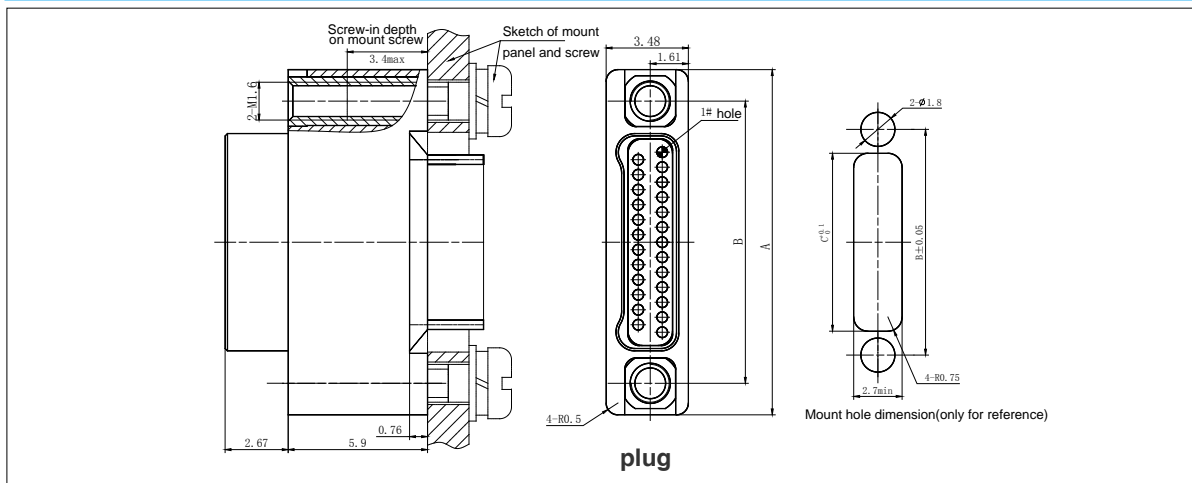
### Order marks

<b>Series</b>	R06	-2	2	1	-C	2	-25	RH	0	-TH	 <p>plug</p>  <p>receptacle</p>
<b>Contact row:</b>	2 — tow rows										
<b>Shell plating:</b>	2 — nickel plating										
<b>Contact plating:</b>	1 — gold plating										
<b>Termination type :</b>	C — crimp										
<b>Mounting style:</b>	2 — vertical mounted										
<b>Contact number:</b>	9、15、21、25、31、37、51、65、69										
<b>Contact type</b>	PI — pin in plug					RH — socket in receptacle					
<b>Tail cover :</b>	0 — without tail cover										
<b>Locking type:</b>	TH — connect nut										

### Remark

- Connecting nut with thread structure forepart used for locking screw,back part used for mounting
- The connector with connect nut that usually mated with connector which have locking screw

### Outline dimension



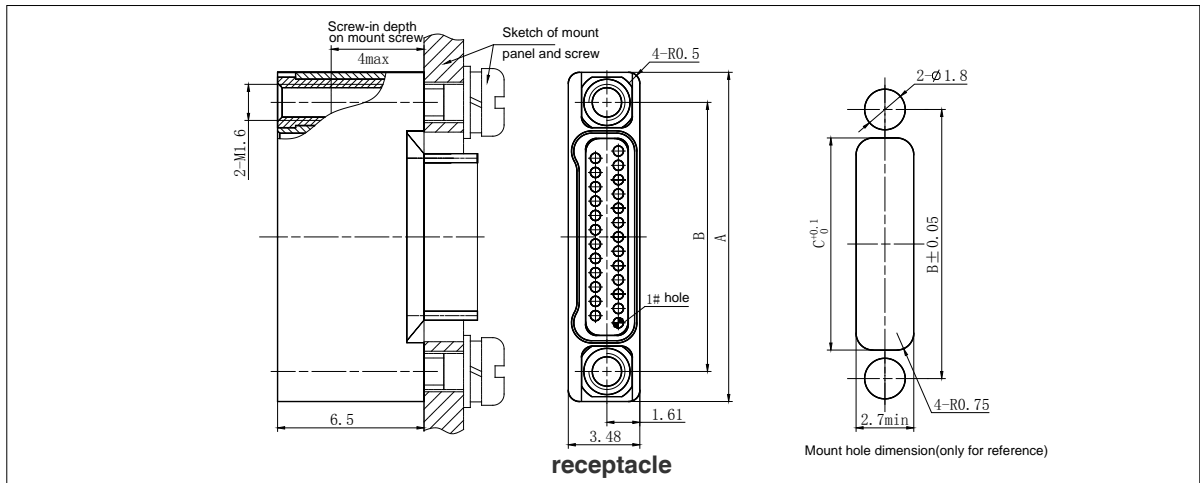
Pin count	Dimension			Pin count	Dimension			Pin count	Dimension		
	A	B	C		A	B	C		A	B	C
9pins	9.63	6.86	4.2	15pins	11.53	8.76	6.1	21pins	13.44	10.67	8
25pins	14.71	11.94	9.3	31pins	16.61	13.84	11.2	37pins	18.52	15.75	13.1
51pins	22.96	20.19	17.55	65pins	27.41	24.64	22	69pins	28.68	25.91	23.25

Remark: All dimensions are in mm



## Vertical Mounted Crimp Series

### Outline dimension




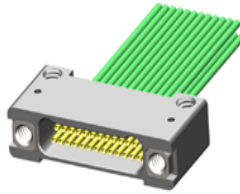
Pin count	Dimension			Pin count	Dimension			Pin count	Diension		
	A	B	C		A	B	C		A	B	C
9pins	9.63	6.86	4.2	15pins	11.53	8.76	6.1	21pins	13.44	10.67	8
25pins	14.71	11.94	9.3	31pins	16.61	13.84	11.2	37pins	18.52	15.75	13.1
51pins	22.96	20.19	17.55	65pins	27.41	24.64	22	69pins	28.68	25.91	23.25

Remark: All dimensions are in mm



# Horizontal Mounted Crimp Series

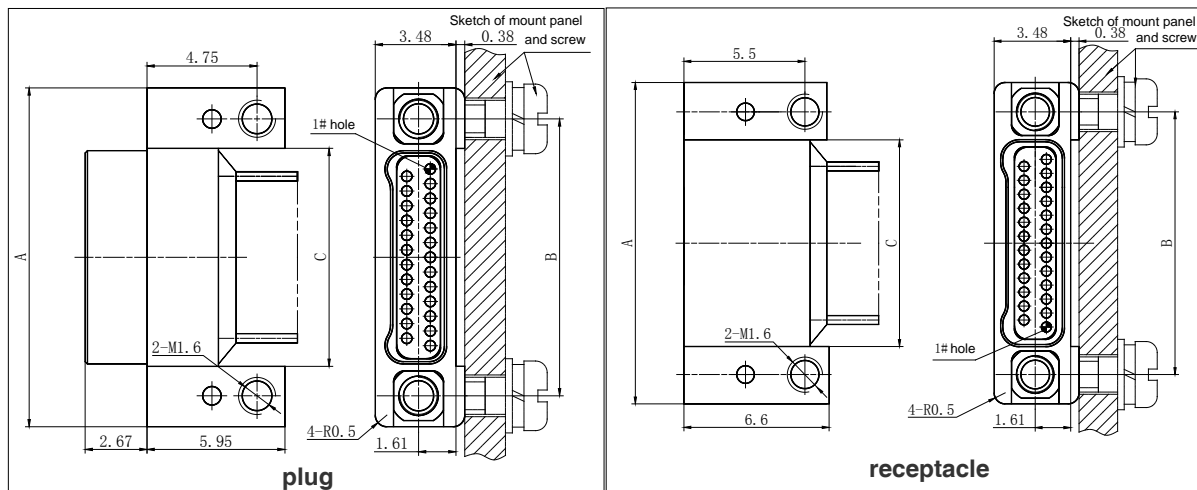
## Order marks

<b>Series</b>	R06	-2	2	1	-C	3	-25	RH	0	-TH	 <p>plug</p>  <p>receptacle</p>
<b>Contact row:</b>	2 — tow rows										
<b>Shell plating:</b>	2 — nickel plating										
<b>Contact plating:</b>	1 — gold plating										
<b>Termination type :</b>	C— crimp										
<b>Mounting style:</b>	3 — horizontal mounted										
<b>Contact number:</b>	9、15、21、25、31、37、51、65、69										
<b>Contact type</b>	PI — pin in plug      RH— socket in receptacle										
<b>Tail cover :</b>	0— without tail cover										
<b>Locking type:</b>	TH— connect nut										

### Remark

- Connector is horizontal mounted
- The connector with connect nut that usually mated with connector which have locking screw

## Outline dimension



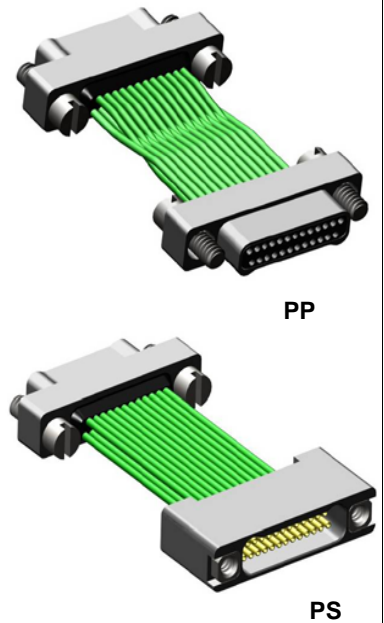
Pin count	Dimension			Pin count	Dimension			Pin count	Dimension		
	A	B	C		A	B	C		A	B	C
9pins	9.63	6.86	4.31	15pins	11.53	8.76	6.22	21pins	13.44	10.67	8.13
25pins	14.71	11.94	9.40	31pins	16.61	13.84	11.30	37pins	18.52	15.75	13.21
51pins	22.96	20.19	17.65	65pins	27.41	24.64	22.10	69pins	28.68	25.91	23.37

Remark: All dimensions are in mm

## Crimp Siamese Connection Series

### Order marks

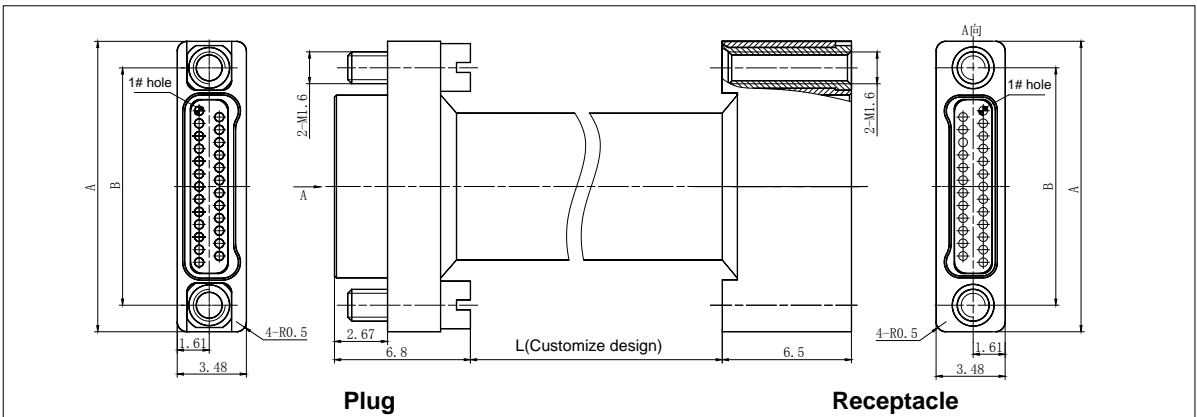
Series	R06	-2	2	1	-C	4	-25	PP
<b>Contact row:</b>	2 — tow rows							
<b>Shell plating:</b>	2 — nickel plating							
<b>Contact plating:</b>	1 — gold plating							
<b>Termination type :</b>	C— crimp							
<b>Mounting style:</b>	4 — crimp siamese							
<b>Contact number:</b>	9、15、21、25、31、37、51、65、69							
<b>Contact type:</b>	PP— plug interconnect plug PS— plug interconnect receptacle SS— receptacle interconnect receptacle							



### Remark

- The matching locking component for this series is single form. (1) Plug with locking screw (2) Receptacle with locking nut

### Outline dimension



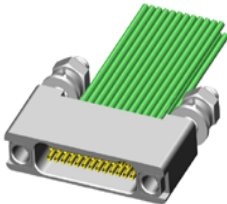
Pin count	Dimension		Pin count	Dimension		Pin count	Dimension	
	A	B		A	B		A	B
9pins	9.63	6.86	15pins	11.53	8.76	21pins	13.44	10.67
25pins	14.71	11.94	31pins	16.61	13.84	37pins	18.52	15.75
51pins	22.96	20.19	65pins	27.41	24.64	69pins	28.68	25.91

Remark: All dimensions are in mm



# Nut Mounted Crimp Receptacle with Guid Hole Series

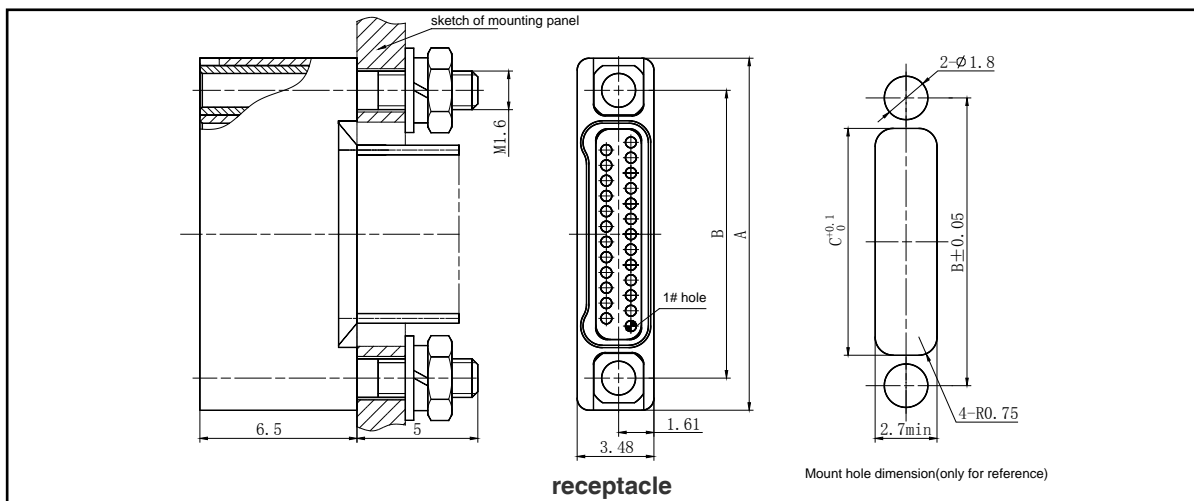
## Order marks

<b>Series</b>	R06	-2	2	1	-C	5	-25	RH	0	-TH	 <p style="text-align: center;"><b>RH</b></p>
<b>Contact row:</b>											
2 — tow rows											
<b>Shell plating:</b>											
2 — nickel plating											
<b>Contact plating:</b>											
1 — gold plating											
<b>Termination type :</b>											
C— crimp											
<b>Mounting style:</b>											
5 — nut mounted											
<b>Contact number:</b>											
9、15、21、25、31、37、51、65、69											
<b>Contact type:</b>											
RH— socket in receptacle											
<b>Tail cover :</b>											
0— without tail cover											
<b>Locking type:</b>											
NH— guide hole with nut mounted											

### Remark

- Connector with guide hole, usually mated with plug which have guid pin

## Outline dimension



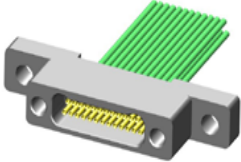
Pin count	Dimension			Pin count	Dimension			Pin count	Dimension		
	A	B	C		A	B	C		A	B	C
9pins	9.63	6.86	4.2	15pins	11.53	8.76	6.1	21pins	13.44	10.67	8
25pins	14.71	11.94	9.3	31pins	16.61	13.84	11.2	37pins	18.52	15.75	13.1
51pins	22.96	20.19	17.55	65pins	27.41	24.64	22	69pins	28.68	25.91	23.25

Remark: All dimensions are in mm



# Flange Mounted Crimp Receptacle with Guid Hole Series

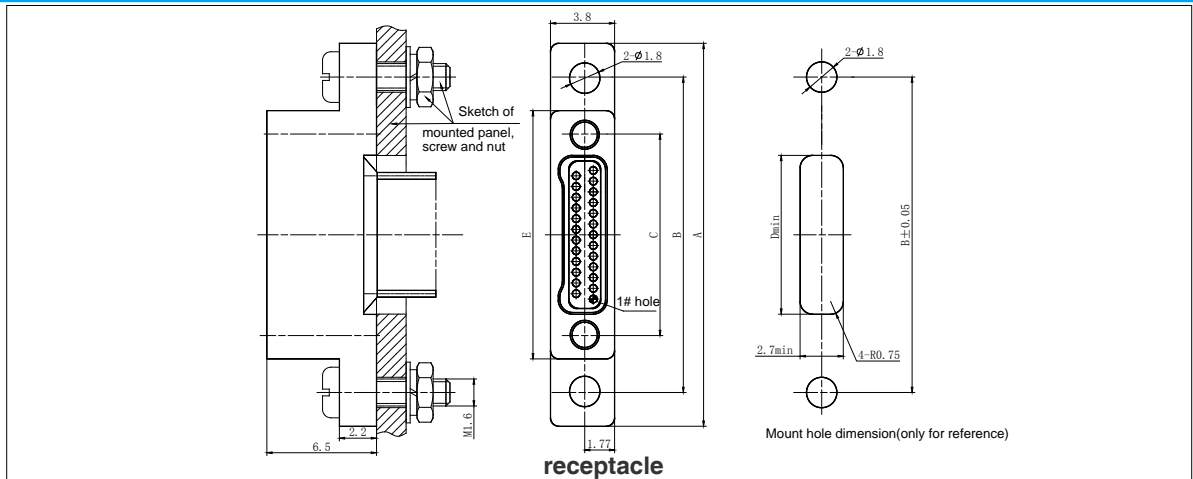
## Order marks

<b>Series</b>	R06	-2	2	1	-C	6	-25	RH	0	-00	 <p>RH</p>
<b>Contact row:</b>											
2 — tow rows											
<b>Shell plating:</b>											
2 — nickel plating											
<b>Contact plating:</b>											
1 — gold plating											
<b>Termination type :</b>											
C — crimp											
<b>Mounting style:</b>											
6 — flanget mounted											
<b>Contact number:</b>											
9、15、21、25、31、37、51、65、69											
<b>Contact type:</b>											
RH — socket in receptacle											
<b>Tail cover :</b>											
0 — without tail cover											
<b>Locking type:</b>											
00 — without locking component											

### Remark

- Connector with guid hole, usually mated with plug which have guid pin

## Outline dimension

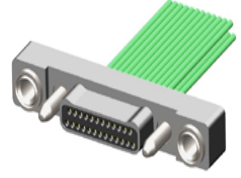


Pin count	Dimension					Pin count	Dimension				
	A	B	C	D	E		A	B	C	D	E
9pins	17.6	13.6	6.86	4.2	9.63	15pins	19.5	15.5	8.76	6.1	11.53
21pins	21.4	17.4	10.67	8	13.44	25pins	22.7	18.7	11.94	9.3	14.71
31pins	24.6	20.6	13.84	11.2	16.61	37pins	26.5	22.5	15.75	13.1	18.52
51pins	30.9	26.9	20.19	17.6	22.96	65pins	35.4	31.4	24.64	22	27.41
69pins	36.7	32.7	25.91	23.3	28.68						

Remark: All dimensions are in mm

## Floating Mounted Crimp Plug Series

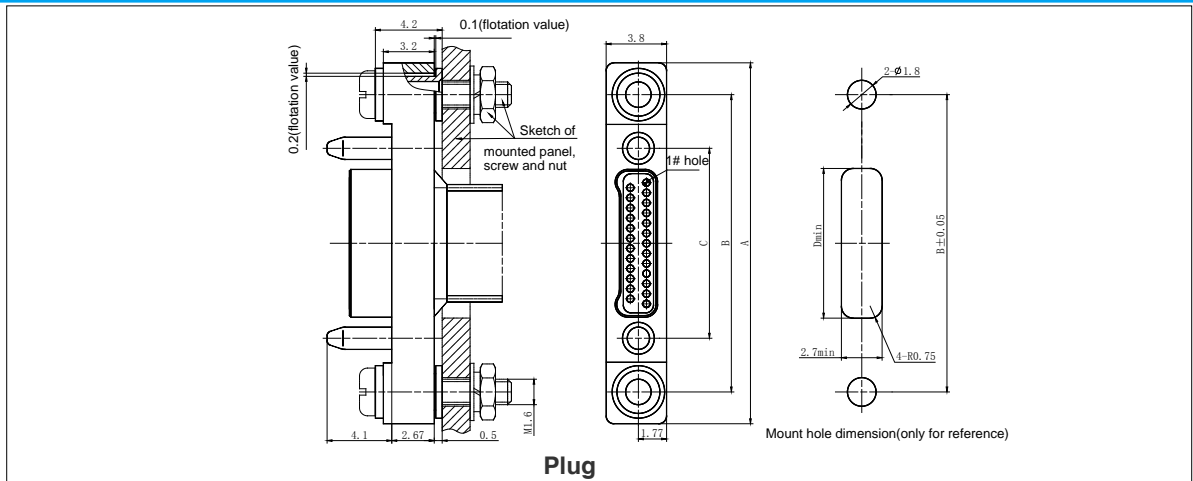
### Order marks

<b>Series</b>	R06	-2	2	1	-C	7	-25	PI	0	-00	 <p style="text-align: center;">PI</p>
<b>Contact row:</b>	2 — tow rows										
<b>Shell plating:</b>	2 — nickel plating										
<b>Contact plating:</b>	1 — gold plating										
<b>Termination type :</b>	C — crimp										
<b>Mounting style:</b>	7 — floating mounted										
<b>Contact number:</b>	9、15、21、25、31、37、51、65、69										
<b>Contact type:</b>	RH — socket in receptacle										
<b>Tail cover :</b>	0 — without tail cover										
<b>Locking type:</b>	00 — without locking component										

#### Remark

- Connector with guid pin and floating tube,application on blind-mated connector
- Connector usually mated with receptacle which have guid hole

### Outline dimension



Pin count	Dimension				Pin count	Dimension			
	A	B	C	D		A	B	C	D
9pins	17.6	13.6	6.86	4.2	15pins	19.5	15.5	8.76	6.1
21pins	21.4	17.4	10.67	8	25pins	22.7	18.7	11.94	9.3
31pins	24.6	20.6	13.84	11.2	37pins	26.5	22.5	15.75	13.1
51pins	30.9	26.9	20.19	17.6	65pins	35.4	31.4	24.64	22
69pins	36.7	32.7	25.91	23.3					

Remark: All dimensions are in mm