



# SIGNAL MILITARY CONNECTORS

Standard Aerospace & Military Connectors

MIL-DTL-38999 / Micro D-sub(J30J)

# About us

## Company

Signal Electronics was established in 2009. We are leading industrial connectors and cables company with product development and manufacturing capabilities. We offer customized connectors design expertise and manufacturing services to meet our customers' needs.

## Products

- Circular connectors such as M5, M8, M9, M12, M16, M23, M40, 7/8", Mini-Din, RF, MIL-C-5015, D38999, etc. (Include A, B, C, D, X, S, T, L, E, F, M, Y, P... -Coding)
- Cable harness assembly
- Customized connectors and cables
- One-stop solution

## Quality

- We are ISO9001 and ISO14001 certified company
- Our products conforms to international testing standards; including CE, cUL, TUV, RoHS, REACH, IP68, IP69K, (NMEA2000)

## Service

- Dedicated project manager for your project from start to finish
- Fast quote within 24 hours
- Expedited samples submission to help you win over your competitors
- We have proven product quality and dependable services as recognized by our customers throughout North America and EU.

## Partnership

Our goal is to work with and earn our customer's trust, starting with a single project and mature into a long-term partnership; especially with OEM/ODM customers.

If you have any questions, please feel free to contact us through [sales@sz-signal.com](mailto:sales@sz-signal.com) or call +86-755-29886112. We are here to assist you!

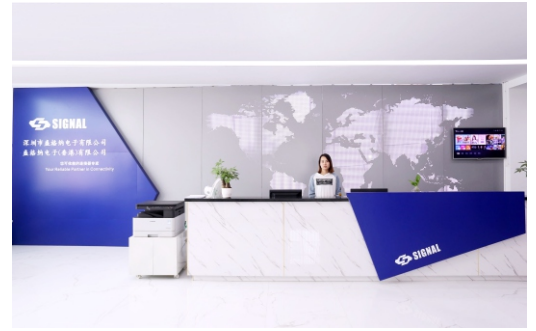
# 公司简介

深圳市盛格纳电子有限公司自2009年成立以来，一直从事圆形连接器和工业连接线的技术研发和生产服务。作为中国领先的主流厂商，盛格纳致力于为客户定制专业的连接方案，生产有竞争力和高品质的产品。我们的目标是成为世界级的圆形系列连接器和连接线行业内的龙头企业。

盛格纳推行先进的企业管理体系，建立了完善的ISO 9001:2015国际质量管理体系和ISO 14001:2015环境管理体系认证，拥有知识产权管理体系GB/T29490-2013及工业化和信息化融合管理体系GB/T 23001-2017，并于2021年正式导入IATF 16949:2016质量管理体系。产品材料完全符合RoHS和REACH环保要求，产品先后通过了CE、UL和TUV等安规认证，产品防护等级高达IP67/IP68/IP69K等标准。

盛格纳提供的优质产品广泛应用于工业自动化、医疗、传感器、工业网络传输、船舶、安防等。产品已远销美国、加拿大、日本、英国、德国、意大利、法国、澳大利亚、巴西、土耳其、马来西亚、泰国、以色列等60多个国家和地区。

公司秉持厚德载物、以人为本、共同发展的理念。我们在重视企业的发展的同时，更重视人与社会的和谐发展。



## 联系我们！

公司名称：深圳市盛格纳电子有限公司

公司地址：深圳市光明新区马田街道合水口社区下朗工业区13-15栋

联系电话：+86-0755-29886112

传真：+86-0755-29886179

E-mail: sales@sz-signal.com, info@sz-signal.com

网址：www.sz-signal.com / www.signal-connector.com

# Military Connector

## Product Applications/产品应用



# Military Connector(D38999)

## MIL-DTL-38999 part numbers

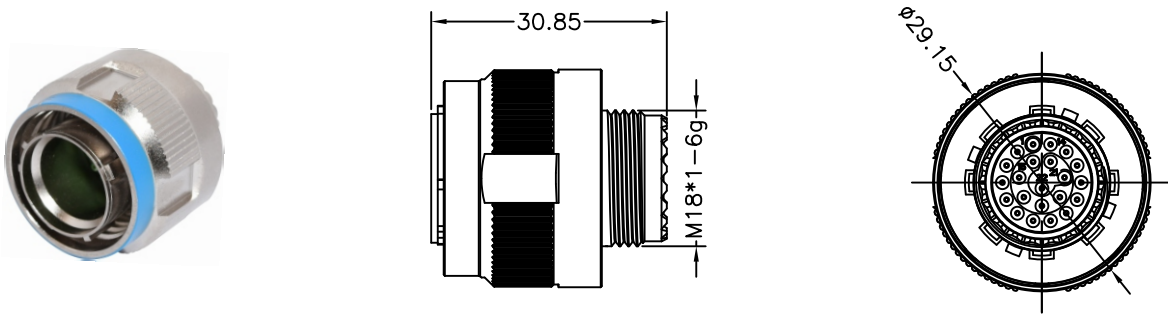
Basic Series	D38999	20	W	B	35	P	N
<b>Shell style/外壳款式:</b>							
20 : Square flange receptacle/方形法兰插座							
24 : Jam nut receptacle/锁紧螺母插孔							
26 : Plug with RFI shielding/RFI 屏蔽插头							
<b>Plating/电镀:</b>							
Z: Black zinc nickel/黑锌镍							
W: Olive drab cadmium/橄榄色镉							
F: Nickel/镍							
<b>Shell size/外壳尺寸: A, B, C, D, E, F, G, H, J(See Page 06)</b>							
<b>Contact layout/针孔分布:</b>							
<b>Contact type/针孔类型:</b>							
P : Pin/插头							
A : Connector supplied less pin contact or with specific contacts (connector marking:A + orientation) 连接器提供较少的针脚触点或特定的触点 ( 连接器标记 : A + 方向 )							
S : Socket/插座							
B : Connector supplied less socket contact or with specific contacts (connector marking: B + orientation) 连接器提供较少的插座触点或带有特定触点 ( 连接器标记 : B + 方向 )							
<b>Orientation/方向: N, A, B, C, D, E(See Page 07)</b>							

## 8D connector part numbers

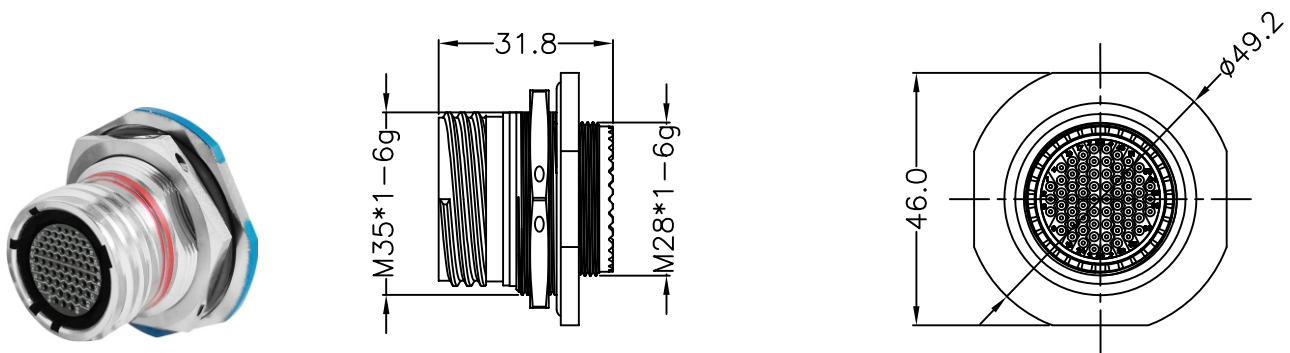
Basic Series	8D	5	13	F	35	P	N
<b>Shell style/外壳款式:</b>							
0: Square flange receptacle/方形法兰插座							
1: In line receptacle/直插式插座							
7: Jam nut receptacle/锁紧螺母插孔							
5: Plug with RFI shielding/RFI 屏蔽插头							
<b>Shell size/外壳尺寸: 09, 11, 13, 15, 17, 19, 21, 23, 25(See Page 06)</b>							
<b>Plating/电镀:</b>							
W: Olive drab cadmium/橄榄色镉							
F: Nickel/镍							
ZC: Green zinc cobalt/绿锌钴							
Z: Black zinc nickel/黑锌镍							
<b>Contact layout/针孔分布:</b>							
<b>Contact type/针孔类型:</b>							
P : Pin/插头							
A : Connector supplied less pin contact or with specific contacts (connector marking:A + orientation) 连接器提供较少的针脚触点或特定的触点 ( 连接器标记 : A + 方向 )							
S : Socket/插座							
B : Connector supplied less socket contact or with specific contacts (connector marking: B + orientation) 连接器提供较少的插座触点或带有特定触点 ( 连接器标记 : B + 方向 )							
<b>Orientation/方向: N, A, B, C, D, E(See Page 07)</b>							

# Military Connector(D38999)

## Plug/插头



## Socket/插座

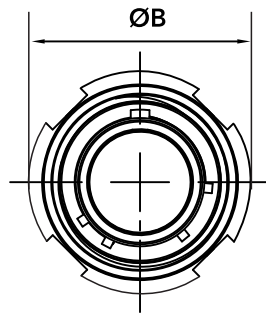
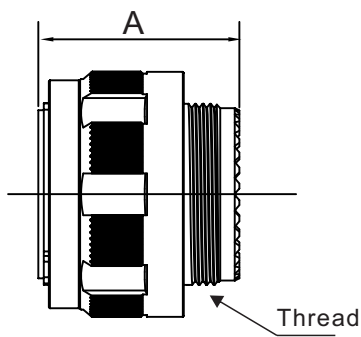


## Specifications/技术参数

Property/性能	Requirement/要求
Connector Type / 连接器类型	Plug插头 / Socket插座
Number of Contacts / 芯数	8 / 22 / 66
Temperature Range / 温度范围	-45°C~+150°C
Sealing Level / 密封等级	IP67
Contact Type / 端子类型	Crimp / 压接
Salt Spray / 耐盐雾性	48H
Mating Cycles / 插拔次数	> 500 mating cycles
Shell Material / 外壳材质	Aluminium / 铝
Shell Plating / 外壳电镀	Nickel / 镍
Shielding / 屏蔽	Yes

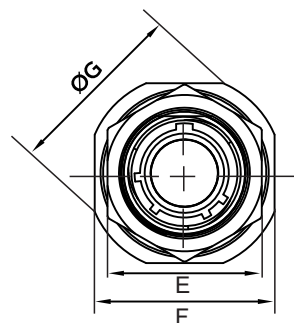
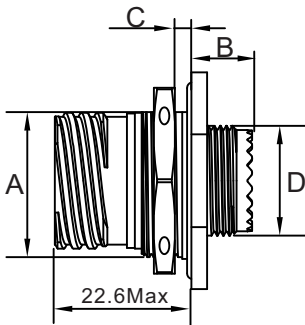
# Military Connector(D38999)

## Plug Dimensions / 插头尺寸



Shell size	A Max	Thread	ØB Max
09 (A)	31.00	M12 x 1-6g	21.80
11 (B)		M15 x 1-6g	25.00
13 (C)		M18 x 1-6g	29.40
15 (D)		M22 x 1-6g	32.50
17 (E)		M25 x 1-6g	35.70
19 (F)		M28 x 1-6g	38.50
21 (G)		M31 x 1-6g	41.70
23 (H)		M34 x 1-6g	44.90
25 (J)		M37 x 1-6g	48.00

## Socket Dimensions / 插座尺寸



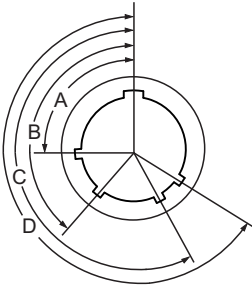
Shell size	A <sup>±0.15</sup>	B Max	C Max	D Thread	E Max	F <sup>±0.4</sup>	ØG Max
09 (A)	16.53	9.9	3.2	M12 x 1-6g	23	27	30.5
11 (B)	19.07			M15 x 1-6g	26	31.8	35.2
13 (C)	23.82			M18 x 1-6g	31	34.9	38.4
15 (D)	26.97			M22 x 1-6g	34	38.1	41.6
17 (E)	30.15			M25 x 1-6g	37	41.3	44.8
19 (F)	33.32			M28 x 1-6g	41	46	49.5
21 (G)	36.50			M31 x 1-6g	46	49.2	52.7
23 (H)	39.67			M34 x 1-6g	47	52.4	55.9
25 (J)	42.85			M37 x 1-6g	51.23	55.6	59

Recommended coupling torque on panel for jam nut receptacle  
锁紧螺母插座面板上推荐的耦合扭矩

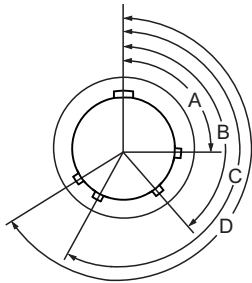
Shell	09 (A)	11 (B)	13 (C)	15 (D)	17 (E)	19 (F)	21 (G)	23 (H)	25 (J)
Coupling torque (±0.5 N.m)	4	5	7	8	9	10	12	13	14

# Military Connector(D38999)

## Dimensions/方向



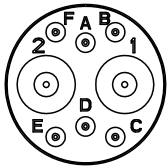
Viewed from front face of receptacle



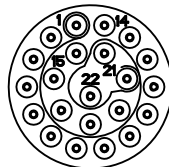
Viewed from front face of plug

Shell size	Angles	N	A	B	C	D	E	T	V
9 (A)	A°	105	102	80	35	64	91	-	-
	B°	140	132	118	140	155	131	-	-
	C°	215	248	230	205	234	197	-	-
	D°	265	320	312	275	304	240	-	-
11 (B) 15 (D)	A°	95	113	90	53	119	51	-	-
	B°	141	156	145	156	146	141	-	-
	C°	208	182	195	220	176	184	-	-
	D°	236	292	252	255	298	242	-	-
13 (C)	A°	95	113	90	53	119	51	70	75
	B°	141	156	145	156	146	141	136	138
	C°	208	182	195	220	176	184	218	224
	D°	236	292	252	255	298	242	261	268
17 (E) 21 (G)	A°	80	135	49	66	62	79	58	85
	B°	142	170	169	140	145	153	162	150
	C°	196	200	200	200	180	197	188	191
	D°	293	310	244	257	280	272	316	307
19 (F) 23 (H) 25 (J)	A°	80	135	49	66	62	79	-	-
	B°	142	170	169	140	145	153	-	-
	C°	196	200	200	200	180	197	-	-
	D°	293	310	244	257	280	272	-	-

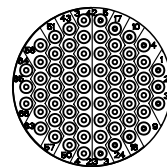
## Contact layouts/针孔排布



8pin



22pin



66pin



8D513F26SN



D3899926FC35PN



D3899926FF35PN



8D713F26PN



D3899924FC35SN



D3899924FF35SN



## Related Products/相关产品



## Military Connector(Micro D/J30J)

Micro-D are rugged, high performance, densely compacted 0.050" (1.27 mm) pitch interconnect. DURA-CON is the ideal connector for applications where weight and space must be kept to a minimum while maintaining maximum reliability. Micro-D are one of the most widely used high density connectors. Micro-D 是坚固耐用、高性能、密集压实的 0.050 " ( 1.27 mm ) 间距互连的连接器。DURA-CON 是重量和空间必须保持最小同时保持最高可靠性的应用场合。Micro-D DURA-CON 是最广泛使用的高密度连接器之一。

### Features/产品特征

- Both Plug and Socket available in 9, 15, 21, 25, 31, 37 and 51 positions.  
插头和插座有 9, 15, 21, 25, 31, 37, 51芯可选。
- Aluminium shell provides extra strength and EMI/RFI shielding capability.  
铝外壳提供额外的强度和EMI/RFI屏蔽能力。
- Rugged twist-pin contacts resistant to shock and vibration make metal shell an excellent choice for harsh environments  
坚固的扭针触点抗冲击和振动使金属外壳成为恶劣环境的绝佳选择
- Hermetic seal achieved through Hermetic compound  
通过密封化合物实现密封
- Tested to Mil-DTL-83513  
经测试符合 Mil-DTL-83513要求
- Pigtail and solder cup terminations available  
提供尾纤和焊杯终端

### Electrical/电器参数

- Current Rating: 3 Amps maximum  
额定电流：3A
- Withstanding Voltage: 900 VAC RMS@ sea level  
耐电压：900 VAC RMS@ 海平面
- Contact Resistance: 8 milliohms maximum  
接触电阻：8毫欧

### Materials/材料

- Insulator: UL94V-0 rated glass-filled polyester or diallyl phthalate  
绝缘体：UL94V-0 级玻璃填充聚酯或邻苯二甲酸二烯丙酯
- Contacts: Pins - Copper alloy, sockets - Copper alloy (machined)  
触点：插针 - 铜合金，插座 - 铜合金
- Contact Plating: 1.27 micron gold as per Mil-G-4204  
接触镀层：1.27 微米金，符合 Mil-G-4204
- Shell: Aluminium alloy  
外壳：铝合金
- Shell Plating: Electroless nickel and cadmium  
外壳电镀：化学镀镍和镉
- Hermetic Seal: Hermetic compound  
密封：密封化合物
- Sealing: Fluoro Silicone 'O' ring seal  
密封：氟硅圆环密封圈

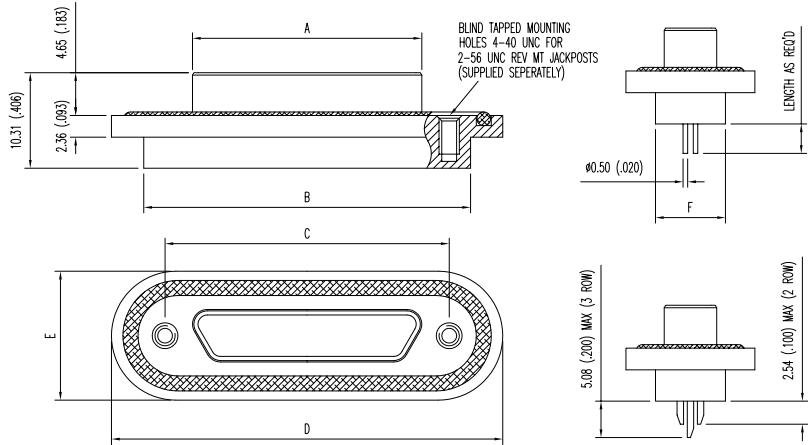
### Environmental/环境

- Operating Temperature: -55°C to +125°C  
工作温度：-55°C to +125°C

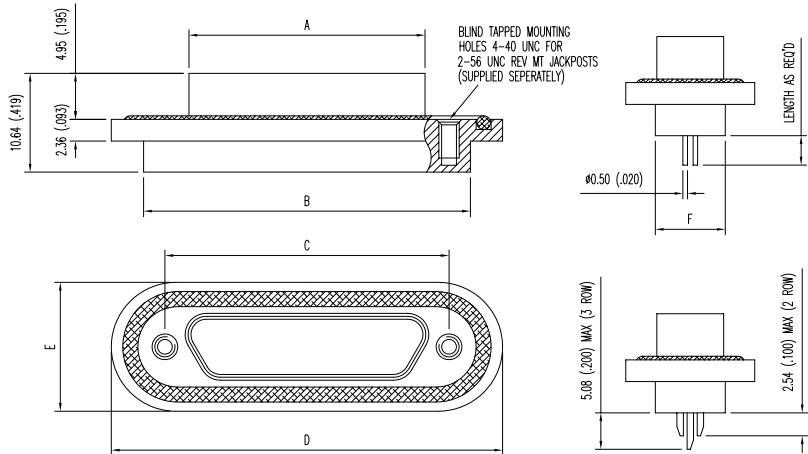
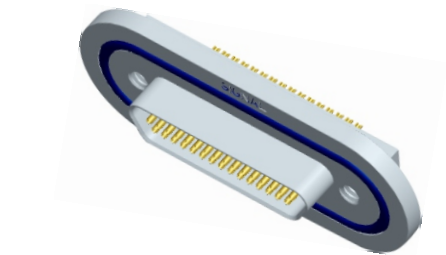
# Military Connector(Micro D/J30J)

Connector Dimensions - Mating view of pin insert.(Use reverse order for socket side)  
 连接器尺寸 - 插针的配合视图。(对插座侧使用相反的顺序)

## Plug/插头



## Socket/插座



# Military Connector(Micro D/J30J)

## Connector size/连接器尺寸

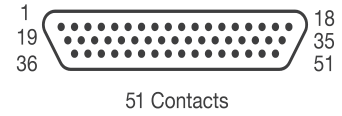
No. of Contacts	A Max.		B ± 0.25 (0.010")		C ± 0.127 (0.005")		D ± 0.20 (0.008")		E ± 0.20 (0.008")		F ± 0.20 (0.008")	
	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches
9 Plug	8.4	0.333	19.65	0.774	14.35	0.565	31.68	1.247	17.00	0.670	7.50	0.295
9 Socket	10.06	0.396	19.65	0.774	14.35	0.565	31.68	1.247	17.00	0.670	7.50	0.295
15 Plug	12.27	0.483	23.45	0.923	18.16	0.715	34.16	1.345	17.00	0.670	7.50	0.295
15 Socket	13.87	0.546	23.45	0.923	18.16	0.715	34.16	1.345	17.00	0.670	7.50	0.295
21 Plug	16.08	0.633	27.25	1.073	21.97	0.865	39.15	1.541	17.00	0.670	7.50	0.295
21 Socket	17.68	0.696	27.25	1.073	21.97	0.865	39.15	1.541	17.00	0.670	7.50	0.295
25 Plug	18.62	0.733	29.85	1.175	24.51	0.965	41.66	1.640	17.00	0.670	7.50	0.295
25 Socket	20.22	0.796	29.85	1.175	24.51	0.965	41.66	1.640	17.00	0.670	7.50	0.295
31 Plug	21.16	0.883	33.65	1.325	28.32	1.115	44.13	1.737	17.00	0.670	7.50	0.295
31 Socket	24.03	0.946	33.65	1.325	28.32	1.115	44.13	1.737	17.00	0.670	7.50	0.295
37 Plug	26.24	1.033	37.45	1.474	32.13	1.265	49.12	1.934	17.00	0.670	7.50	0.295
37 Socket	27.84	1.096	37.45	1.474	32.13	1.265	49.12	1.934	17.00	0.670	7.50	0.295
51 Plug	24.97	0.983	36.15	1.423	30.86	1.215	48.50	1.909	18.10	0.713	8.60	0.339
51 Socket	26.57	1.046	36.15	1.423	30.86	1.215	48.50	1.909	18.10	0.713	8.60	0.339

## Specifications/技术参数

Property/性能	Requirement/要求
Current Rating / 额定电流	3 Amp maximum
Dielectric Withstanding Voltage Sea level / 介质耐压	900 VAC
Contact Resistance / 接触电阻	8 milliohms maximum
Low Level Contact resistance / 低功率接触电阻	32 milliohms maximum
Insulation Resistance / 绝缘电阻	5000 megohms minimum
Magnetic Permeability / 磁导率	2.0 maximum
Mating Force / 对配力	(10 ounces max.) x (# of contacts)
Unmating Force / 分离力	0.5 ounces min.) x (# of contacts)
Contact Retention / 保持力	5 pounds minimum
Operating Temperature / 工作温度	-55°C. to 125°C.
Durability / 耐用性	500 mating cycles minimum
Salt Spray (corrosion) / 盐雾 ( 腐蚀 )	48 hours
Shock / 冲击	50 G's
Vibration / 震动	20 G's
Minimum Hermetic Leakage Rate / 最小密封泄漏率	1 x 10 <sup>-8</sup> mbar 1/s

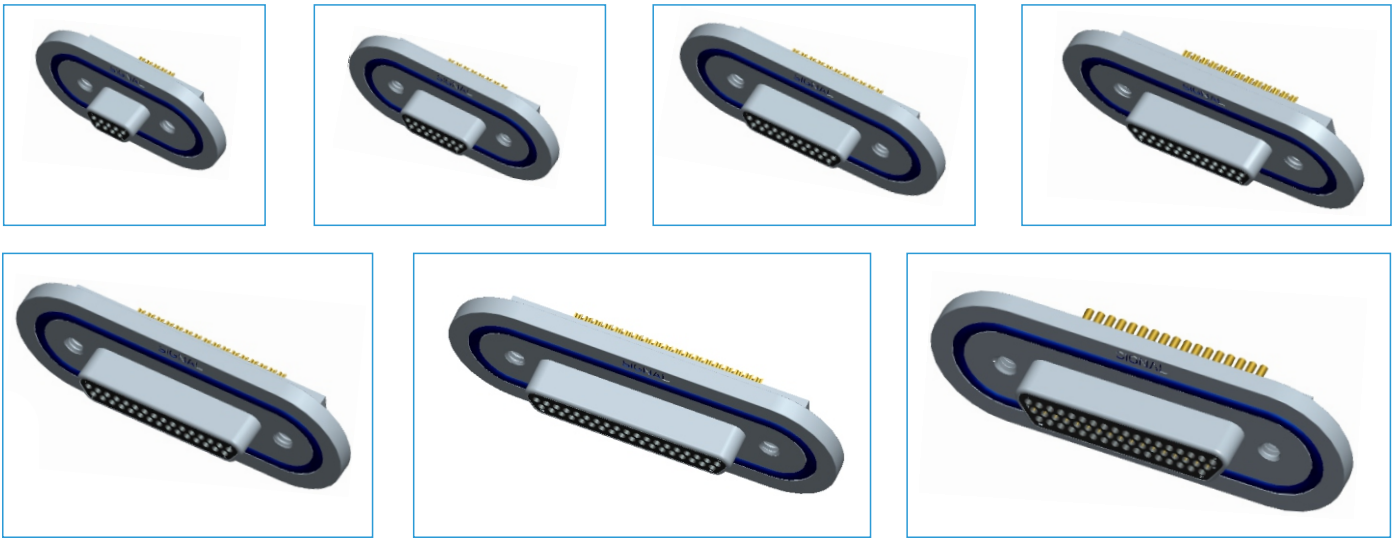
# Micro D-sub(J30J) Connector

Contact layout/针孔排布 (Front view/前视图)



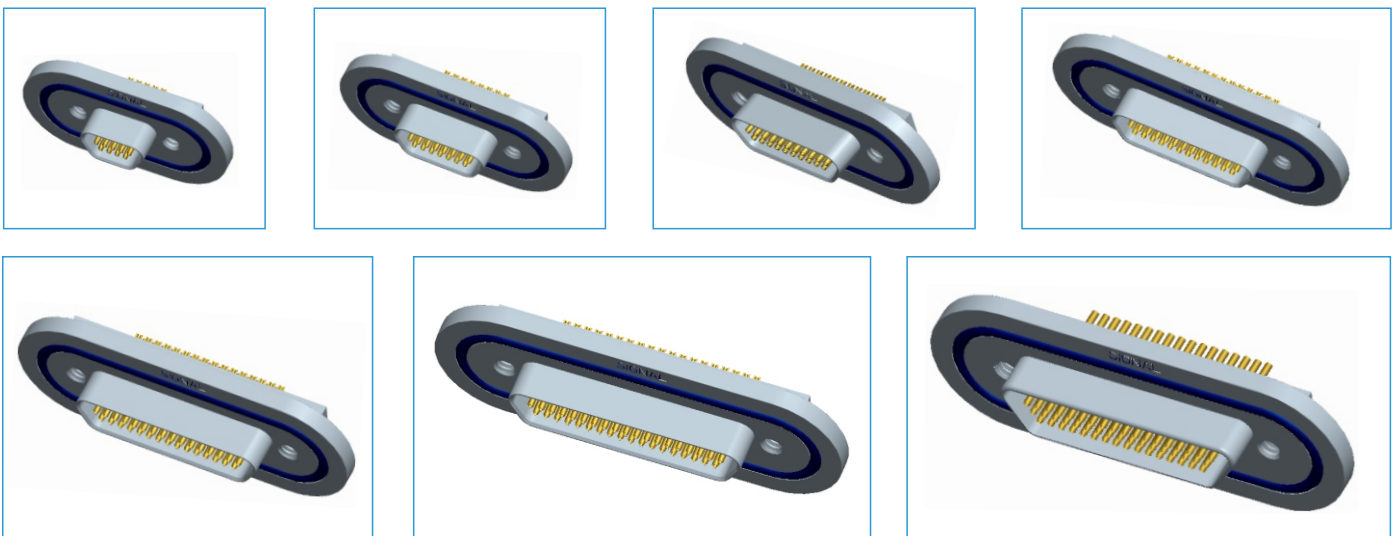
Plug/插头

J30J-9 / 15 / 21 / 25 / 31 / 37 / 51pins



Socket/插座

J30J-9 / 15 / 21 / 25 / 31 / 37 / 51pins



All rights are reserved. Our catalogues cannot be reprinted or reproduced in any form and no other form of reproduction can be used without our written authorization in advance. N.B.: Shenzhen Signal Electronics Co., Ltd does not take any responsibility for any mistakes in the catalogue and reserves the right to modify or to change the content or the technical specifications without any pre-notice.

本公司保留此目录所有权。未经授权，不得以任何形式再版或转载。

注意：深圳市盛格纳电子有限公司不对目录中的错误负责。并保留修改或改变内容和技术参数权利，而无需做出任何事先通知。



Shenzhen Signal Electronics Co., Ltd  
SIGNAL GROUP (HK) CO., LIMITED  
深圳市盛格纳电子有限公司

International Sales/国际销售 : +86 0755 86250720 +86 0755 27153782

Domestic Sales/国内销售 : +86 0755 29886112

Fax/传真 : +86 0755 29886179

Add/厂址 : Building 13-15, Xia Lang Industrial Park, He Shui Kou Community,  
Matian Residential District, Guangming New District Shenzhen, GD, China

深圳市光明新区马田街道合水口社区下朗工业区13-15栋

Email/电邮 : sales@sz-signal.com / info@sz-signal.com

Website/网站 : www.sz-signal.com / www.signal-connector.com