

K 系列防水连接器 K series waterproof connector

K 系列连接器专为室外应用而设计，采用安全的推拉自锁系统，本产品体积小，多芯2-21芯，接点密度高；多种键位选择。外壳采用铜合金加工，表面镀铬或者镀镍。插针插孔采用铜合金加工，表面镀金；绝缘体采用耐高温、具有良好绝缘性能的工程塑料注塑成型；护套采用软性工程塑料注塑成型。能良好的保护电缆。该系列的所有型号插合时都防水，并且防护等级达到IP68。

K series connectors designed for outdoor applications, using the push-pull self-locking security system, the products are small, type of multi-core Core 2-21, high contact density; select multiple keys, The use of copper alloy shell processing, surface plating chrome or nickel, copper alloy pin jack used processing, the surface of gold-plated; Insulators with good insulation properties of engineering plastics injection molding; sheath using soft plastics injection molding, cable can be well protected. All models in the series are waterproof, and protective levels reached IP68.



命名 How to order

浮动式插座 PH - G - 1K - 306 - C - L - L - 52 - Z

固定式插座 EG - G - 1K - 306 - C - L - L

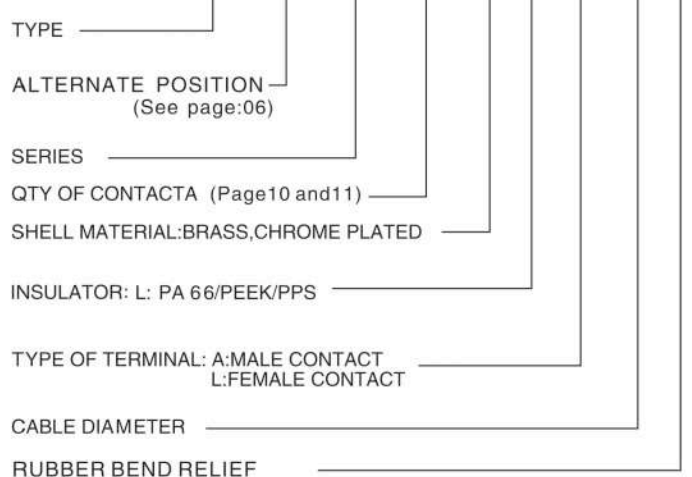
插头 FG - G - 1K - 306 - C - L - A - 52 - Z



FREE SOCKET PH - G - 1K - 306 - C - L - L - 52 - Z

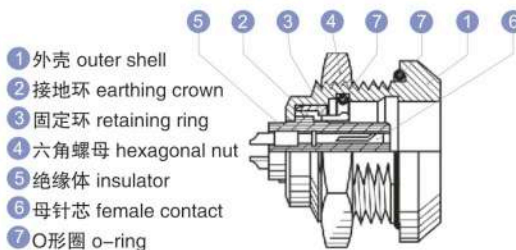
FIXED SOCKET EG - G - 1K - 306 - C - L - L

PLUG FG - G - 1K - 306 - C - L - A - 52 - Z

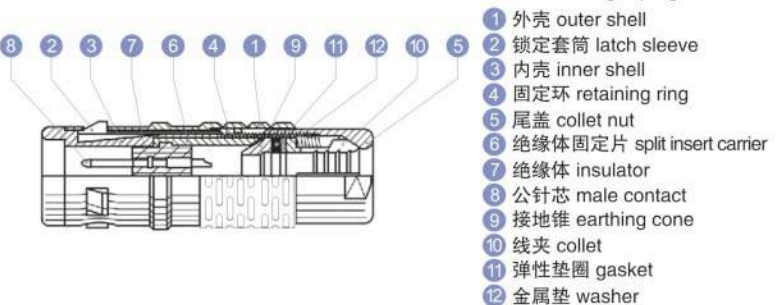


产品剖面图 Part Section Showing Internal Components

固定式插座 Fixed socket



直式插头 Straight plug



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金属外壳型号 Metal housing models

技术特性

机械性能和环境因素

特性	参数	标准
插拔次数	> 5000次	IEC60512-5试验9a
湿度	在60° C时最高达95%	
温度范围	-55° C,+220° C	
抗振动性能	10-2000Hz,15g	IEC60512-4试验6d
抗冲击性能	100g,6ms	IEC60512-4试验6c
盐雾腐蚀试验	> 144 h	IEC60512-6试验11f
防护等级(插合时) ¹⁾	IP68/IP66	IEC60529
环境实验	50/175/21	IEC60068-1

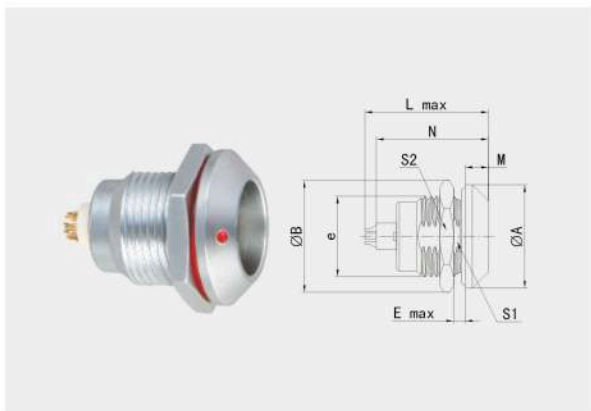
电气性能

特性	参数	标准	
屏蔽效果	在10MHz下	> 95 dB	IEC60169-1-3
	在1GHz下	> 80 dB	IEC60169-1-3

注:

以上数据是对外壳采用黄铜镀铬、绝缘体采用PA66材料、带硅胶O形圈的FGG插头和EGG插座进行各项试验得出。

1) 若电缆外形足够圆, 并且组装过程保证密封良好, 那么可以达到IP68防护等级。



Technical Characteristics

Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60°C	
Temperature range	- 55°C, +220°C	
Resistance to vibration	10-2000 Hz, 15g	IEC 60512-4 test 6d
Shock resistance	100g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated) ¹⁾	IP68/IP66	IEC 60529
Climatical category	50/175/21	IEC 60068-1

Electrical

Characteristics	Value	Standard	
Efficiency Shielding	at 10 MHz	> 95 dB	IEC 60169-1-3
	at 1 GHz	>80 dB	IEC 60169-1-3

Note:

The various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell, PA66 insulator and silicone O-ring.

1) IP68 achieved providing that the cable is perfectly circular and that assembly process ensures a high integrity seal.

EGG

固定式插座, 螺母固定, 定位销 (G) 或定位销 (A...F, L和R)
Fixed socket, nut fixing, key (G) or keys (A to F, L and R)

编号 Reference	尺寸 Dimensions (mm)									
型号 Model	系列 Series	A	B	e	E	L	M	N	S1	S3
EGG	0K	18	19.2	M14x1.0	6	21.7	4.0	20.1	12.5	17
EGG	1K	20	21.5	M16x1.0	9	27.0	4.5	25.1	14.5	19
EGG	2K	25	27.0	M20x1.0	9	30.7	5.0	28.6	18.5	24

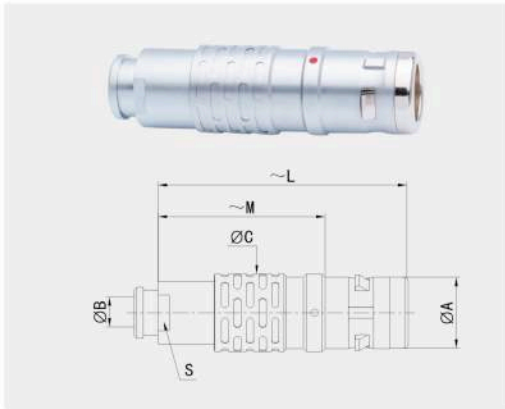


FGG

直式插头, 定位销 (G) 或定位销 (A...F, L和R), 电缆线夹
Straight plug, key (G) or keys (A to F, L and R), cable collet

编号 Reference	尺寸 Dimensions (mm)						线夹孔位 Conillet hole
型号 Model	系列 Series	A	C	L	M	S2	B
FGG	0K	9.9	11	34	23.0	8	1.6 2.2 4.2 5.2
FGG	1K	12	13	42	28.0	9	6.2 7.2
FGG	2K	14.9	16	52	36.0	12	5.2 6.2 8.2 10.2

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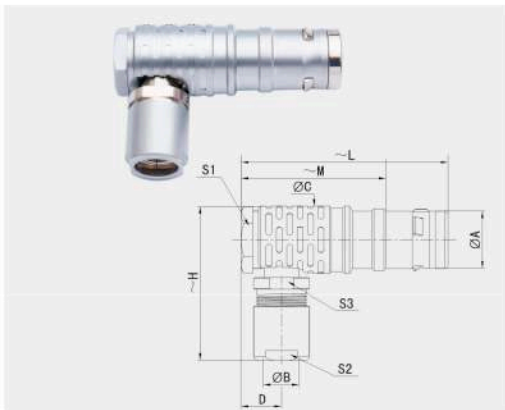


FGG

直式插头, 定位销 (G) 或定位销 (A...F,L和R), 电缆线夹和带护套型的尾盖¹⁾
Straight plug, key(G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief¹⁾

编号 Reference		尺寸 Dimensions(mm)					线夹孔位 Conlet hole	
型号 Model	系列 Series	A	C	L	M	S2	B	
FGG	0K	9.9	11	34	23.0	8	1.6 2.1 3.1 4.2 5.2	
FGG	1K	12	13	42	28.0	9	1.6 2.2 3.2 4.2 5.2 6.2 7.2	
FGG	2K	14.9	16	52	36.0	12	5.2 6.2 8.2 10.2	

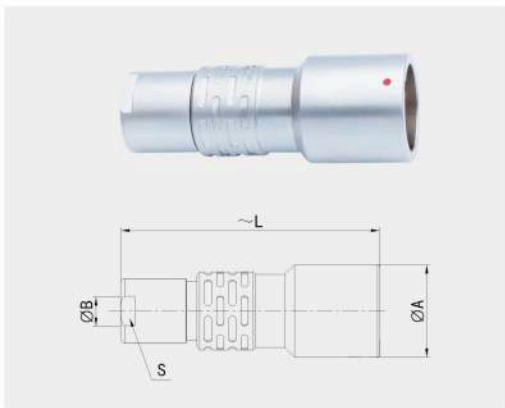
注: 1) 订购时, 在编号最后加一字母“Z”。
Note: 1) to order, add a "Z" at the end of the reference.



FHG

90° 弯脚式插头, 定位销 (G) 或定位销 (A...F, L和R), 电缆线夹
Elbow(90°) plug, key(G) or keys (A to F, L and R), cable collet

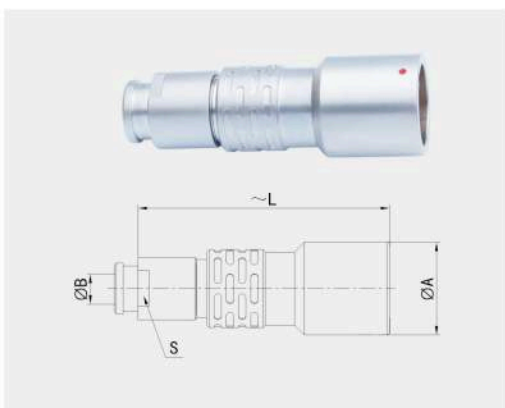
编号 Reference		尺寸 Dimensions(mm)								线夹孔位 Conlet hole	
型号 Model	系列 Series	A	C	D	H	L	M	S1	S2	S3	B
FHG	0K	9.9	11.5	7.6	27	36	25.0	10	8	8	1.6 2.1 3.1 4.2 5.2
FHG	1K	12	14.0	8.8	31	43	29.0	12	9	10	1.6 2.2 3.2 4.2 5.2 6.2 7.2
FHG	2K	14.9	17.5	10.5	40	54	38.0	15	12	13	5.2 6.2 8.2 10.2



PHG

浮动式插座, 定位销 (G) 或定位销 (A...F,L和R), 电缆线夹
Free socket, key(G) or keys (A to F, L and R), cable collet

编号 Reference		尺寸 Dimensions(mm)			线夹孔位 Conlet hole	
型号 Model	系列 Series	A	L	S2	B	
PHG	0K	13	34.0	8	1.6 2.1 3.1 4.2 5.2	
PHG	1K	15	45.0	9	1.6 2.2 3.2 4.2 5.2 6.2 7.2	
PHG	2K	19	54.0	12	5.2 6.2 8.2 10.2	



PHG

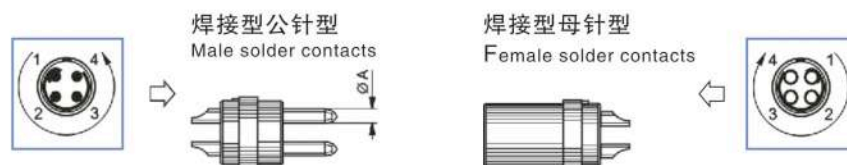
浮动式插座, 定位销 (G) 或定位销 (A...F, L和R), 电缆线夹和带护套型的尾盖¹⁾
Free socket, key(G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief¹⁾

编号 Reference		尺寸 Dimensions(mm)			线夹孔位 Conlet hole	
型号 Model	系列 Series	A	L	S2	B	
PHG	0K	13	34.0	8	1.6 2.1 3.1 4.2 5.2	
PHG	1K	15	45.0	9	1.6 2.2 3.2 4.2 5.2 6.2 7.2	
PHG	2K	19	54.0	12	5.2 6.2 8.2 10.2	

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针芯 (B和K系列) Insert configuration(B and K series)

多芯 Multipole



系列 Series	00			
	302	303	304	
芯数 NO of contacts				
接触体直径 (mm) Solder inter diameter(mm)	0.5	0.5	0.5	
接触电阻 (mΩ) Contact resistance(mΩ)	10	10	10	
工作电流 (A) Working Current(A)	5	3	2	
测试电压 (V) Test.Voltage(V)	600	600	450	
工作电压 (V) Working Voltage(V)	250	250	200	

系列 Series	0B-0K						
	302	303	304	305	306	307	309
芯数 NO of contacts							
接触体直径 (mm) Solder inter diameter(mm)	0.9	0.9	0.7	0.7	0.5	0.5	0.5
接触电阻 (mΩ) Contact resistance(mΩ)	6	6	7.5	7.5	10	10	10
工作电流 (A) Working Current(A)	10	10	7	7	5	5	5
测试电压 (V) Test.Voltage(V)	1000	875	875	750	750	750	750
工作电压 (V) Working Voltage(V)	500	400	300	300	300	300	300

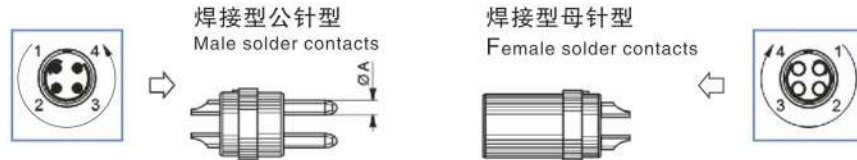
系列 Series	1B-1K					
	302	303	304	305	306	307
芯数 NO of contacts						
接触体直径 (mm) Solder inter diameter(mm)	1.3	1.3	0.8	0.8	0.7	0.7
接触电阻 (mΩ) Contact resistance(mΩ)	5	5	6	6	7.5	7.5
工作电流 (A) Working Current(A)	14	14	10	10	7	7
测试电压 (V) Test.Voltage(V)	1250	1000	1000	875	875	875
工作电压 (V) Working Voltage(V)	550	500	500	450	450	400

系列 Series	1B-1K		
	308	310	314
芯数 NO of contacts			
接触体直径 (mm) Solder inter diameter(mm)	0.7	0.5	0.5
接触电阻 (mΩ) Contact resistance(mΩ)	7.5	10	10
工作电流 (A) Working Current(A)	7	5	5
测试电压 (V) Test.Voltage(V)	875	750	750
工作电压 (V) Working Voltage(V)	333	333	300

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针芯 (B和K系列) Insert configuration(B and K series)

多芯 Multipole



系列 Series	2B-2K					
	302	303	304	305	306	307
芯数 NO of contacts						
接触体直径 (mm) Solder inter diameter(mm)	2.0	1.6	1.3	1.3	1.3	1.3
接触电阻 (mΩ) Contact resistance(mΩ)	3	4	5	5	5	5
工作电流 (A) Working Current(A)	20	17	14	14	14	14
测试电压 (V) Test.Voltage(V)	1500	1500	1500	1250	1250	1250
工作电压 (V) Working Voltage(V)	700	800	750	600	500	500

系列 Series	2B-2K					
	308	310	312	314	316	319
芯数 NO of contacts						
接触体直径 (mm) Solder inter diameter(mm)	0.9	0.9	0.7	0.7	0.7	0.5
接触电阻 (mΩ) Contact resistance(mΩ)	6	6	7.5	7.5	7.5	7.5
工作电流 (A) Working Current(A)	10	10	7	7	7	7
测试电压 (V) Test.Voltage(V)	1250	1250	1000	875	875	875
工作电压 (V) Working Voltage(V)	500	500	450	400	388	300

系列 Series	3B					
	304	308	310	312	314	316
芯数 NO of contacts						
接触体直径 (mm) Solder inter diameter(mm)	2.0	1.3	1.3	0.9	0.9	0.9
接触电阻 (mΩ) Contact resistance(mΩ)	3	5	5	6	6	6
工作电流 (A) Working Current(A)	17	14	14	10	10	10
测试电压 (V) Test.Voltage(V)	1500	1250	1250	1250	1250	1250
工作电压 (V) Working Voltage(V)	550	550	450	450	450	450

系列 Series	3B					
	318	320	322	324	326	330
芯数 NO of contacts						
接触体直径 (mm) Solder inter diameter(mm)	0.9	0.7	0.7	0.7	0.7	0.7
接触电阻 (mΩ) Contact resistance(mΩ)	8	7.5	7.5	7.5	7.5	7.5
工作电流 (A) Working Current(A)	10	7	7	7	7	7
测试电压 (V) Test.Voltage(V)	1000	1000	875	875	875	875
工作电压 (V) Working Voltage(V)	450	368	368	333	333	300

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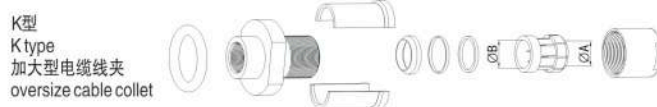
线夹 (B系列) Collets (B series)

适用于B系列的D型和M型线夹
D and M type collets for B series



线夹 (K系列) Collets (K series)

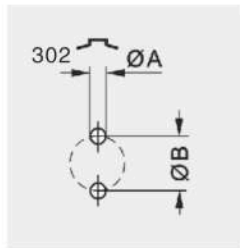
适用于K系列的C型和K型线夹
C and K type collets for K series



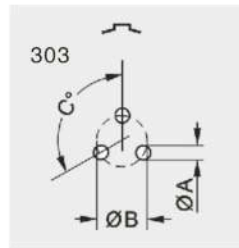
	编号 Reference		线夹Φ ColletΦ		电缆Φ CableΦ	
	类型 Type	编码 Code	ΦA	ΦB	最大值 max.	最小值 Min.
00	D	17	1.7	-	1.6	1.1
	D	22	2.2	-	2.1	1.6
	D	27	2.7	-	2.6	2.1
	D	30	3.1	2.8	3.0	2.5
	D	35	3.5	2.8	3.4	2.9
0B	D	21	2.1	-	2.0	1.5
	D	31	3.1	-	3.0	2.1
	D	42	4.2	-	4.0	3.1
	D	52	5.2	4.7	5.0	4.1
1B	D	56	5.6	4.7	5.5	5.1
	D	42	4.2	-	4.0	3.1
	D	52	5.2	-	5.0	4.1
	D	62	6.2	-	6.0	5.1
2B	D	72	7.2	6.7	7.0	6.4
	D	76	7.6	6.7	7.5	7.1
	D	52	5.2	-	5.0	4.1
	D	62	6.2	-	6.0	5.1
3B	D	72	7.2	-	7.0	6.1
	D	82	8.2	-	8.0	7.1
	D	92	9.2	8.6	9.0	8.1
	D	99	9.9	8.6	9.7	9.1
	M	52	5.2	-	5.0	4.1
	D	62	6.2	-	6.0	5.1
	D	72	7.2	-	7.0	6.1
	D	82	8.2	-	8.0	7.1
	D	92	9.2	-	9.0	8.1
	D	10	10.2	-	10.0	9.1
	D	11	11.2	10.2	11.0	10.1
D	12	11.9	10.2	11.7	11.1	

	编号 Reference		线夹Φ ColletΦ		电缆Φ CableΦ		
	类型 Type	编码 Code	ΦA	ΦB	最大值 max.	最小值 Min.	
0K	C	10	1.6	-	1.2	1.0	
	C	15	1.6	-	1.5	1.3	
	C	20	2.1	-	2.0	1.6	
	C	25	3.1	-	2.5	2.1	
	C	30	3.1	-	3.0	2.6	
	C	35	4.2	4.2	3.5	3.1	
	C	40	4.2	4.2	4.0	3.6	
	C	45	5.2	5.2	4.5	4.1	
	C	50	5.2	5.2	5.0	4.6	
	1K	C	55	6.2	6.2	5.5	5.1
C		60	6.2	6.2	6.0	5.6	
C		65	7.2	6.7	6.5	6.1	
K		70	7.2	-	7.0	6.6	
K		75	8.2	8.2	7.5	7.1	
K		80	8.2	8.2	8.0	7.6	
K		85	9.2	8.6	8.5	8.1	
2K		C	15	2.2	-	1.5	1.3
		C	20	2.2	-	2.0	1.6
		C	25	3.2	-	2.5	2.1
	C	30	3.2	-	3.0	2.6	
	C	35	4.2	-	3.5	3.1	
	C	40	4.2	-	4.0	3.6	
	C	45	5.2	-	4.5	4.1	
	C	50	5.2	-	5.0	4.6	
	C	55	6.2	-	5.5	5.1	
	C	60	6.2	-	6.0	5.6	
C	65	7.2	-	6.5	6.1		
C	70	7.2	-	7.0	6.6		
C	75	8.2	8.2	7.5	7.1		
C	80	8.2	8.2	8.0	7.6		
C	85	9.2	8.6	8.5	8.1		
K	90	9.2	-	9.0	8.6		
K	95	10.2	10.2	9.5	9.1		
K	10	10.2	10.2	10.0	9.6		
K	11	11.2	10.6	10.5	10.1		

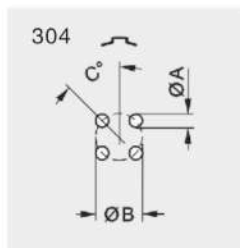
印制电路板钻孔模式 PCB drilling pattern



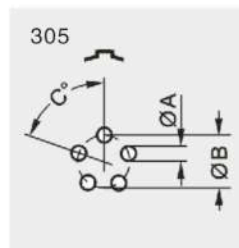
Series 系列	Dimension 尺寸	
	A	B
00	0.6	1.2
0B-0K	0.8	2.2
1B-1K	0.8	2.8
2B-2K	0.8	4.4



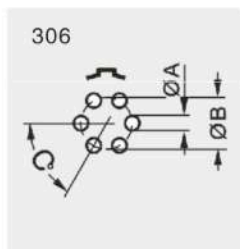
Series 系列	Dimension 尺寸		
	A	B	C
00	0.6	1.35	120°
0B-0K	0.6	2.30	120°
1B-1K	0.8	3.00	120°
2B-2K	0.8	4.60	120°
3B-3K	0.8	5.60	120°



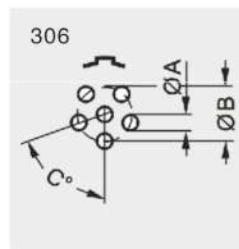
Series 系列	Dimension 尺寸		
	A	B	C
00	0.6	1.6	45°
0B-0K	0.6	2.5	45°
1B-1K	0.8	3.1	45°
2B-2K	0.8	5.0	45°
3B-3K	0.8	6.2	45°



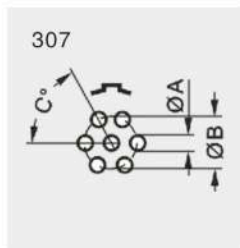
Series 系列	Dimension 尺寸		
	A	B	C
0B-0K	0.6	2.8	72°
1B-1K	0.8	3.4	72°
2B-2K	0.8	5.2	72°
3B-3K	0.8	6.7	72°



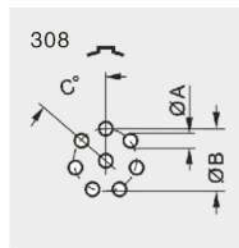
Series 系列	Dimension 尺寸		
	A	B	C
0B-0K	0.6	3.0	60°
1B-1K	0.6	3.7	60°



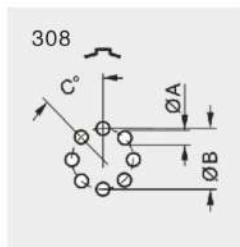
Series 系列	Dimension 尺寸		
	A	B	C
2B-2K	0.8	5.6	72°
3B-3K	0.8	7.1	72°



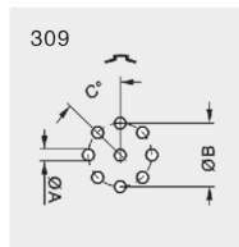
Series 系列	Dimension 尺寸		
	A	B	C
0B-0K	0.6	3.00	60°
1B-1K	0.8	3.70	60°
2B-2K	0.8	5.80	60°
3B-3K	0.8	7.08	60°



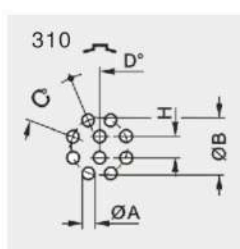
Series 系列	Dimension 尺寸		
	A	B	C
1B-1K	0.8	3.8	51° 26'



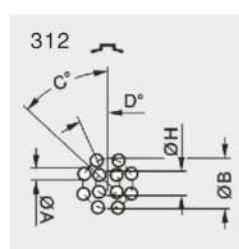
Series 系列	Dimension 尺寸		
	A	B	C
2B-2K	0.8	6.4	45°
3B-3K	0.8	7.5	45°



Series 系列	Dimension 尺寸		
	A	B	C
0B-0K	0.6	3.2	45°
3B-3K	0.8	7.5	45°

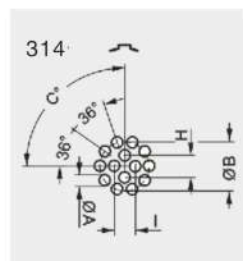


Series 系列	Dimension 尺寸				
	A	B	C	D	H
1B-1K	0.6	3.95	45°	22° 30'	1.40
2B-2K	0.8	6.20	45°	22° 30'	2.15
3B-3K	0.8	7.09	45°	22° 30'	2.80

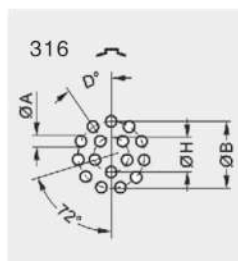


Series 系列	Dimension 尺寸				
	A	B	C	H	I
2B-2K	0.8	6.50	45°	22° 30'	2.80
3B-3K	0.8	8.20	45°	22° 30'	3.40

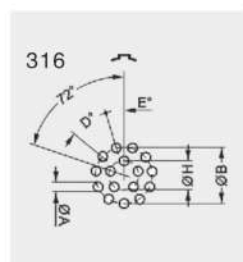
印制电路板钻孔模式 PCB drilling pattern



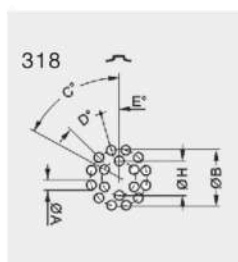
Series 系列	Dimension尺寸				
	A	B	C	H	I
1B-1K	0.6	4.4	90°	1.90	1.80
2B-2K	0.8	6.5	90°	2.65	2.65
3B-3K	0.8	8.2	90°	3.40	3.40



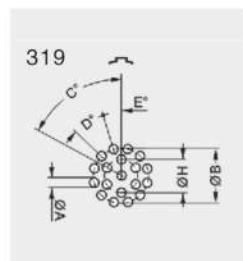
Series 系列	Dimension尺寸			
	A	B	D	H
1B-1K	0.6	4.4	32° 44'	2.00



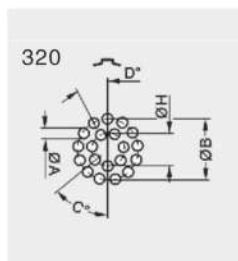
Series 系列	Dimension尺寸				
	A	B	D	E	H
2B-2K	0.8	6.6	32° 44'	16° 22'	3.10
3B-3K	0.8	8.4	32° 44'	16° 22'	3.86
4B-4K	0.8	10.5	32° 44'	16° 22'	5.00



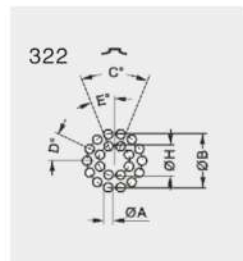
Series 系列	Dimension尺寸					
	A	B	C	D	E	H
2B-2K	0.8	6.7	60°	30°	15°	3.50
3B-3K	0.8	8.4	60°	30°	15°	4.34



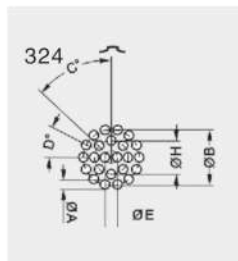
Series 系列	Dimension尺寸					
	A	B	C	D	E	H
2B-2K	0.8	6.7	60°	30°	15°	3.5



Series 系列	Dimension尺寸				
	A	B	C	D	H
3B-3K	0.6	8.62	51° 26'	27° 42'	4.78
4B-4K	0.6	11.00	51° 26'	27° 42'	6.00



Series 系列	Dimension尺寸					
	A	B	C	D	E	H
3B-3K	0.6	8.8	45°	25° 43'	22° 30'	5



Series 系列	Dimension尺寸					
	A	B	C	D	E	H
3B-3K	0.6	8.8	45°	25° 43'	1.8	5.30
4B-4K	0.6	11.1	45°	25° 43'	2.2	6.65

