

L711/3 Series Power Connectors

Description:

Outline dimensions compliant with ILD

711A (MIL-C-38999) III series

- For power supply
- Current rating: 7.5A~225A
- Quick thread coupling with anti-loosening mechanism
- Type of termination at rear end is crimp
- Plug and receptacle loaded with pins or sockets



Main technical characteristics

Mechanical

—Shell: Aluminum alloy, stainless steel

—Plating: Y- olive green cadmium plating

H –electroless nickel plating

M - stainless steel passive

—Insulator: thermoplastic or thermo-set

—Grommet and seal: silicon rubber

—Contact: gold plating on copper alloy

—Endurance: 500 cycles

—Shock: 3ms half sinusoid

—Vibration:

Sinusoid: 41.7grms, 100~1000Hz,
power spectrum density $1g^2/Hz$

Peak value of acceleration: 300g

Electrical

—Voltage rating, withstanding voltage and insulation resistance:

Operation environment	Voltage rating (V)	Withstanding voltage (V)	Insulation resistance (MΩ)
Normal temperature	500	1500	≥5000
Heat and damp	500	750	≥1000

—Electricity of shell:

Y class: 2.5 mΩ

H class: 1 mΩ

M class: 5 mΩ

—Shielding

—10GHz reach 65dB (Y)

—10GHz reach 50dB (Y)

—1GHz, reach 85dB (H and Y)

—Contact resistance and current rating:

Contact size	Contact resistance (mΩ)	Rated current (A)
20#	≤8.5	7.5
16#	≤4.5	13
12#	≤2.2	23
10#	≤1.2	33
8#	≤0.7	46
6#	≤0.5	60
4#	≤0.35	80
0#	≤0.17	150
2/0#	≤0.124	185

Environmental

—Operating temperature:

Y class: -65°C ~ 175°C

H class: -65°C ~ 200°C

—Sealing: Comply with the requirement of MIL-C-38999K low-pressure soakage

—Salt spray: According to method 1001 ILD 1217

500 hours (Y class) 48

hours (H class) 1000

hours (M class)

—Damp heat: 10 cycles in 24 hours according to MIL-C-38999K

—Resistance to fluids: Fuels, coolant, solvent

Ordering information

Basic series	L711/	42	Y	J	04	P	N	-H	
Shell type	42-square flange receptacle 46-jam nut receptacle 48-RFI shielding plug								
Plating	Y –olive green cadmium plating H – electroless nickel plating M – stainless steel passive								
Shell No.	A to J	<u>17</u>	<u>19</u>	<u>21</u>	<u>23</u>	<u>25</u>			
Index No.		E	F	G	H	J			
Insert arrangement	please see the insert arrangement figure								
Contact type	P-pin S-socket								
Polarization	N – normal A, B, C, D, E – alternative								
Solder contact identification (only for solder connectors)	H-solder contact								

Note: applicable back shells for this series are the same with “L711III” series.

[Part number designation example

L711/42YG05PN-H

L711 series square flange receptacles, with olive green cadmium plated shell, G size shell, 05# insert arrangement, pin contact, polarization N. Solder contacts are only applicable for solder connectors.

Crimp contacts

Contact size	Dia. mm	Contact crimp bucket		Applicable wire			Crimping tensile strength		Crimp contact resistance mΩ
		Inner dia. mm	Section mm ²	AWG	Section mm ²	Section dia.	Initial value	After thermal test	
							N	N	
20D#	φ0.76	0.85	0.57	28	0.0804	0.32	13	10	1.2
				26	0.1281	0.404	22	18	1.1
				24	0.2047	0.511	30	23	1.0
				22	0.3247	0.643	49	33	0.8
20#	φ1.0	1.17	1.07	24	0.2047	0.511	30	23	1.0
				22	0.3247	0.643	49	33	0.8
				20	0.5189	0.813	74	62	0.7
16#	φ1.60	1.68	2.22	20	0.5189	0.813	74	62	0.7
				18	0.8107	1.02	167	147	0.5
				16	1.318	1.29	206	184	0.4
12#	φ2.4	2.49	4.87	14	2.075	1.63	314	271	0.3
				12	3.332	2.05	471	413	0.2
10#	φ3.15	3.40	9.07	10	5.26	2.59	601	540	0.1
8#	φ3.6	4.55	16.25	8	8.37	3.26	881	801	0.05
6#	φ4.52	5.9	27.3	6	13.3	4.11	1330	1201	0.05

4#	∅5.72	7.1	39.5	4	21.15	5.19	1780	1601	0.03
0#	∅9.07	11.48	103.4	0	53.49	8.25	3110	2802	0.02
2/0#	∅10.31	12.65	125.6	00	67.43	9.27	3340	3003	0.01

Note:

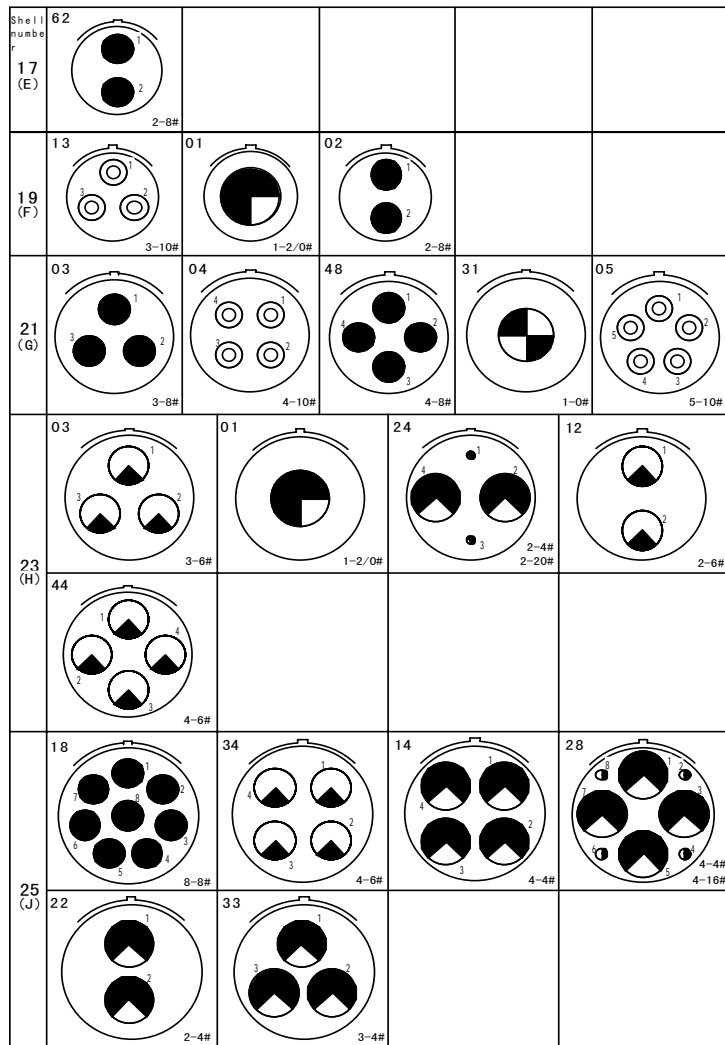
- 1) Solder contacts are supplied separately. Mount contacts in the product after soldering is completed.
- 2) Applicable crimp tool for crimp contacts is YTQ-00 hand hydraulic crimp tool.
- 3) Metallic extractor is designed with the crimp product and needs to be ordered separately.

Crimp contact size	10#	8#	6#	4#	0#	2/0#
Metallic extractor P/N	LA711-QX-10#	LA711-QX-8#	LA711-QX-6#	LA711-QX-4#	LA711-QX-0#	LA711-QX-2/0#

Outline dimensions

[Equal to LA711III series]

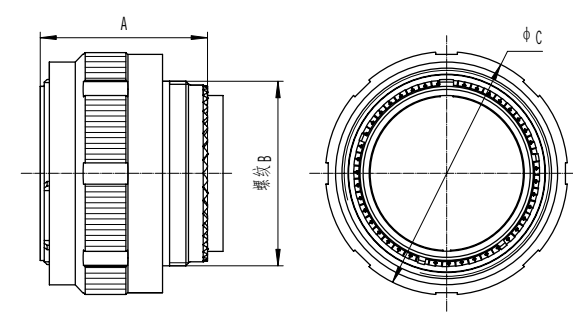
Insert arrangement (mating view of insulator with pin)



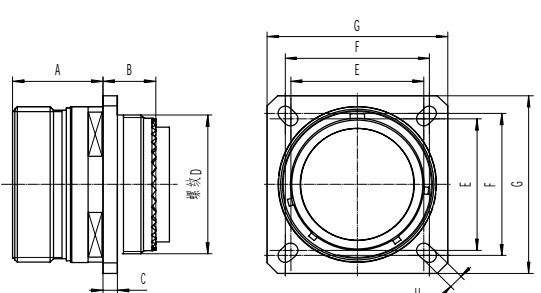
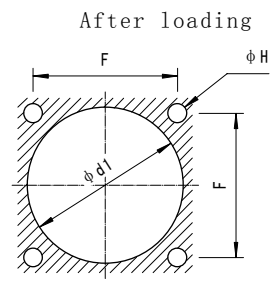
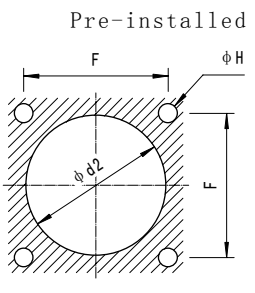
According to the need to add new contacts



Outline dimensions
[Plug]

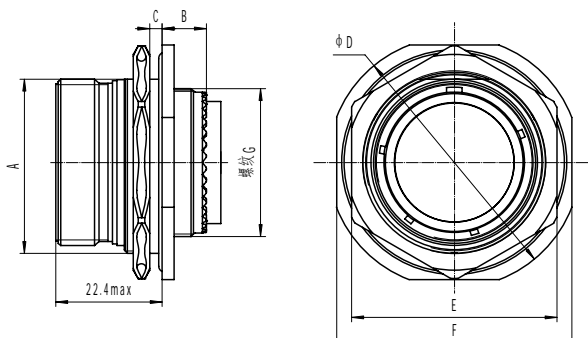
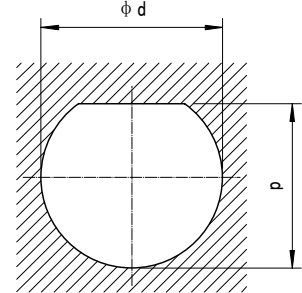
	Shell size	MS Shell size	A max	Thread B	C max
	17	E	31.00	M25×1-6g	35.60
	19	F	31.00	M28×1-6g	38.50
	21	G	31.00	M31×1-6g	41.70
	23	H	31.00	M34×1-6g	44.90
25	J	31.00	M37×1-6g	48.00	

[Square flange receptacle]

			After loading	Pre-installed
			Panel maximum thickness 2.5mm	Panel maximum thickness 3.2mm

Shell size	MS Shell size	A max	B max	C max	Thread D	E	F	G	H	J	d1 min	d2 min
17	E	20.9	10.6	2.5	M25×1-6g	33.3	26.97	24.61	3.25	4.93	30.96	25.81
19	F	20.9	10.6	2.5	M28×1-6g	36.5	29.36	26.97	3.25	4.93	32.94	28.98
21	G	20.1	11.4	3.2	M31×1-6g	39.7	31.75	29.36	3.25	4.93	36.12	32.16
23	H	20.1	11.4	3.2	M34×1-6g	42.9	34.93	31.75	3.91	6.15	39.29	34.93
25	J	20.1	11.4	3.2	M37×1-6g	46.0	38.10	34.93	3.91	6.15	42.47	37.69

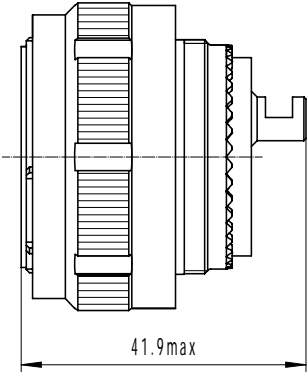
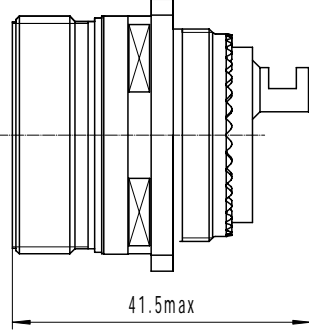
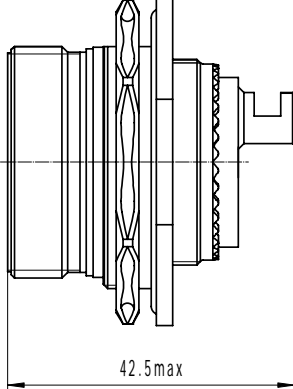
[Jam nut receptacle]

	
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Shell size	MS Shell size	A	B max	C max	D max	E max	F	Thread G	d	p
17	E	30.40	9.90	3.20	44.80	37.00	41.30	M25×1-6g	31.98	30.68
19	F	33.40	9.90	3.20	49.30	41.00	46.00	M28×1-6g	35.15	33.86
21	G	36.50	9.90	3.20	52.70	46.00	49.20	M31×1-6g	38.28	37.06

23	H	39.70	9.90	3.20	55.90	50.00	52.40	M34×1-6g	41.50	40.24
25	J	42.80	9.90	3.20	59.00	51.23	55.60	M37×1-6g	44.68	43.41

L711/3 series power soldering connectors

L711/48 plug		L711/42 receptacle	
 <p style="text-align: center;">41.9max</p>		 <p style="text-align: center;">41.5max</p>	
L711/46 receptacle			
 <p style="text-align: center;">42.5max</p>			
Solder contact size		Solder cup ID	
20#		φ1.1	
16#		φ1.9	
10#		φ3.6	
8#		φ4.5	
6#		φ5.5	
4#		φ7.1	
0#		φ11.5	
2/0#		φ12.6	
		The max. applicable wire gauge (AWG)	
		20	
		16	
		10	
		8	
		6	
		4	
		0	
		00	