



## Shanghai Linreix Electronics Ltd.

No.2-601, Lane 369, Feihong Road, Shanghai 200086

Tel: +86.21.65639960 Fax: +86.21.65631380 URL: www.linreix.com

# LY Series Miniature Solder Connectors

LY-ver1.1

LY series circular connector is in conformity with MIL-C-26482 standard I. Bayonet coupling mechanism is assured by interlock of triple inner-spiral grooves and stainless pins. It is characterized of quick connect and disconnect, small, light, good sealing and environment-resistant. It has shielded and non-shielded shells, various types of back shells and many contact alignments. All shells are precisely turned by high-strength aluminium alloy. Termination is solder type. It is applicable to strategic and tactic systems and field operation. It is also widely used in high-end industrial or medical applications.



## Technical Parameters

### Environmental

Temperature:	-55°C ~ 125°C
Relative humidity:	at 40°C, 95%
Altitude:	30,000m above sea level
Vibration:	at frequency 10Hz~2,000Hz, acceleration of 196m/s <sup>2</sup> ;
Impact:	acceleration of 490m/s <sup>2</sup>
Constant acceleration:	490 m/s <sup>2</sup>
Mould, salt and rain proof:	in compliance with MIL-C-26482, IP67
Air tightness:	withstand to 0.2Mpa (for receptacle)

### Mechanical

Shell:	High strength aluminium alloy, CNC machined -non-conductive plating: anodised black or green -conductive plating: - cobalt zinc olive-drab - electroless nickel plating
Insulator:	High temperature thermoplastic
Grommet/gasket:	Silicone rubber
Contact:	Brass, gold plating
Sealing:	Glue seal
Endurance:	500 cycles



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### Electrical

-Contact resistance and rated current:

Contact diameter	Contact resistance	Rated current
φ 0. 8 (30#)	≤6	3
φ 1.0 (20#)	≤5	5
φ 1. 6 (16#)	≤3	10
φ 2. 4 (12#)	≤1.5	20
φ 3. 6 (8#)	≤1	50

-Rated voltage, withstand voltage and insulation resistance:

Ambient Condition	Rated voltage(V)	Withstand voltage(V)	Insulation resistance(M Ω)
Normal	500	1500	≥3000
Damp heat	500	500	≥20
High temp.	250	-	≥500
Low pressure (4.39kPa)	300	375	-

Shell-to-shell conductivity: ≤ 200 m Ω (non-conductive shell)  
 ≤ 5 m Ω (conductive shell)

### Nomenclature

LY 3116C - 14 - 9 S W (1)  
 1 2 3 4 5 6 7

1. Series, equivalent to MS of MIL-C-26482

2. Connector style:

- (1) 3116-straight plug, with C, G, S, R or N denoting cable mount models
- (2) 3118-90° angled plug, with C, G, S, R or N denoting cable mount models
- (3) 3111-cable-end free receptacle, with C,P,S,R or N denoting cable mount models
- (4) 3112S-box mount receptacle, square-flange  
3112R-box mount receptacle, round flange
- (5) 3114-jam-nut receptacle
- (6) 3119-thru-bulkhead receptacle

3. Shell size: 8,10,12,14,16,18,20,22,24

4. Insert arrangement

5. Contact style:

P-pin contact; S-socket contact, solder type

6. Polarization:

N-Normal and omitted, W, X, Y, Z

7. Surface finish (not marked on connectors):

- 1-electroless nickel plating; 2- green anodized;
- 3- black anodized; 4- olive drab zinc cobalt plating



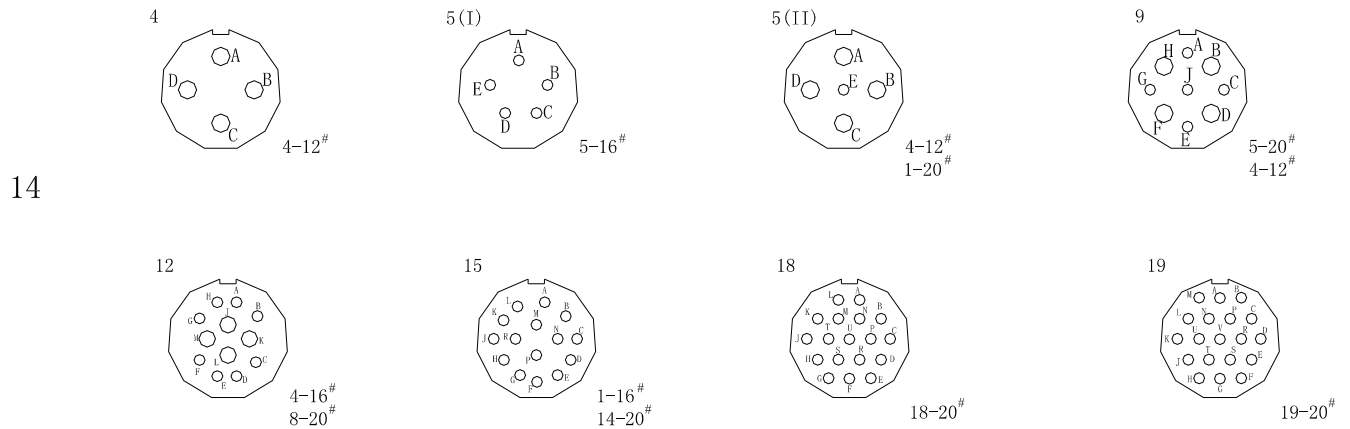
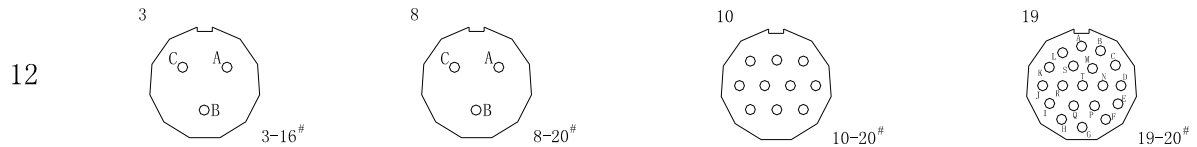
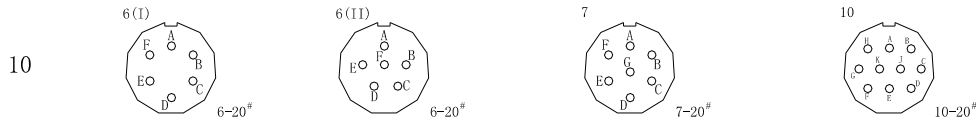
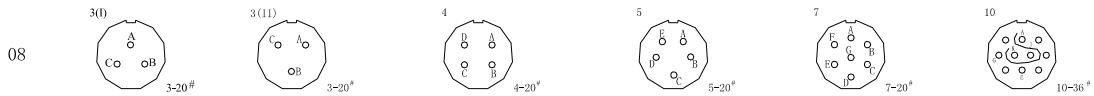
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## Insert arrangements

Contact (AWG)	8	12	16	20	30	36
Diameter (mm)	3.6	2.4	1.6	1.0	0.8	0.6





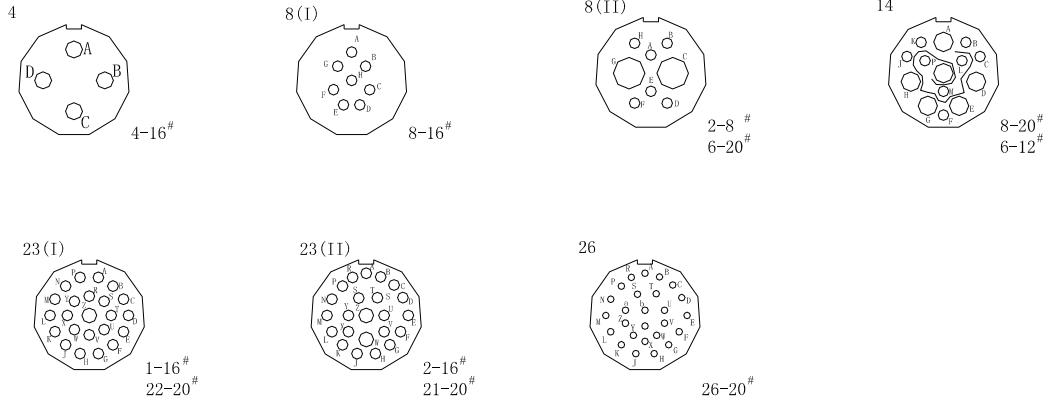
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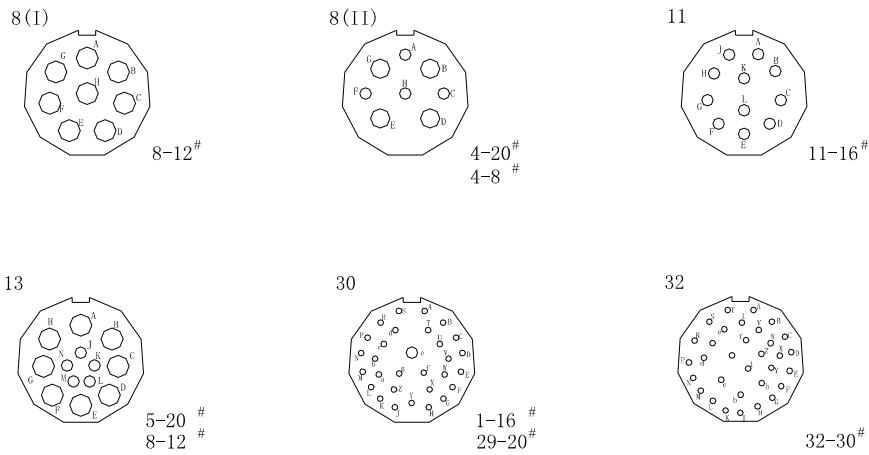
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Diameter (mm)	3.6	2.4	1.6	1.0	0.8	0.6

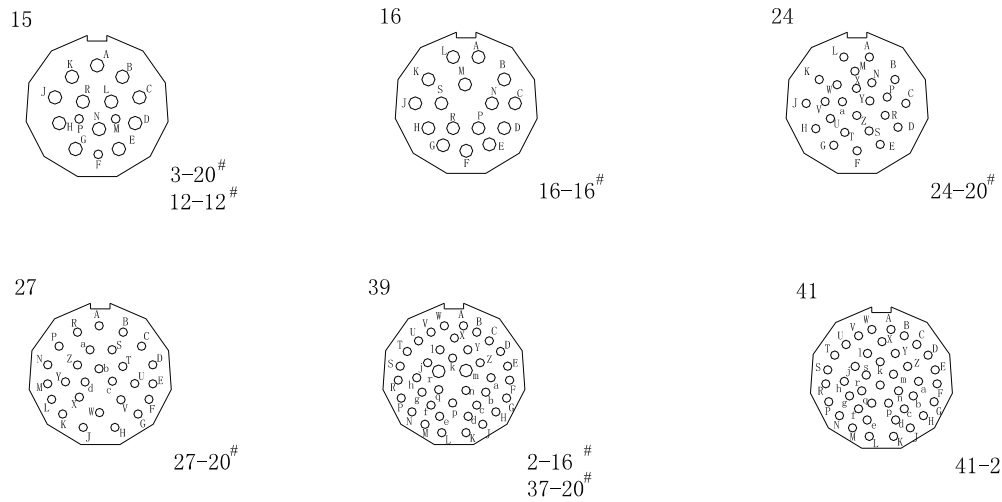
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18



20



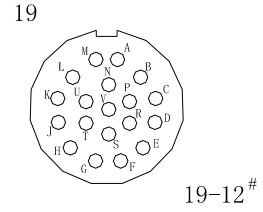
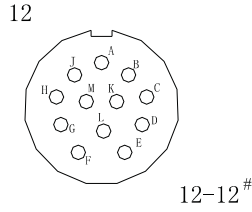
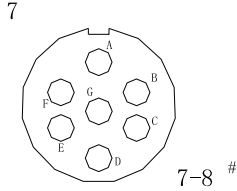


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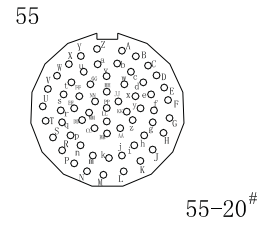
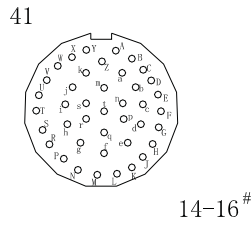
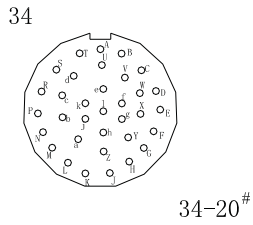
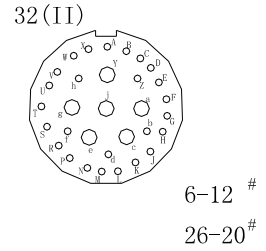
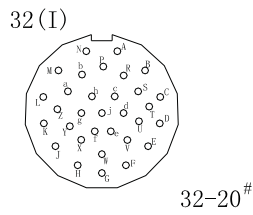
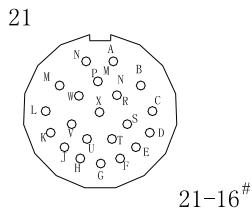
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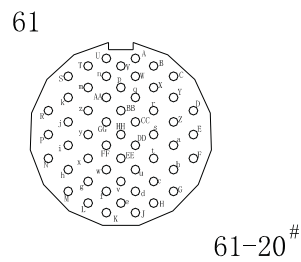
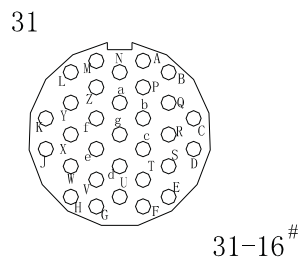
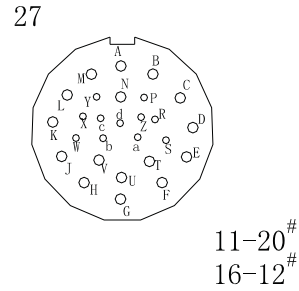
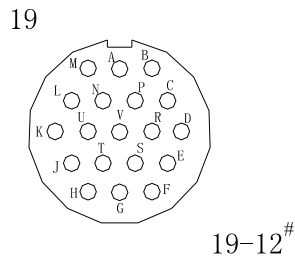
Contact (AWG)	8	12	16	20	30	36
Diameter (mm)	3.6	2.4	1.6	1.0	0.8	0.6



22



24

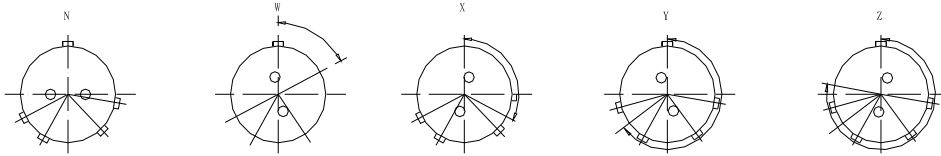




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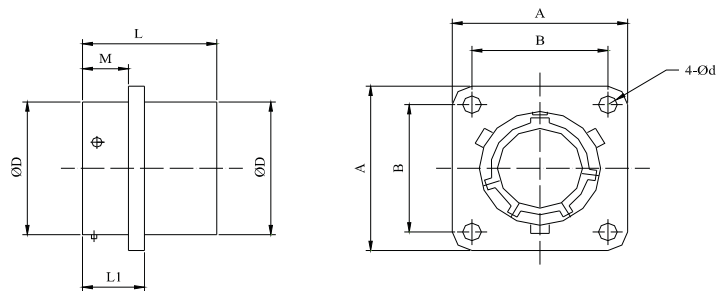
### Polarizations



Insert arrangement	Normal	Orientation (degrees)			
		W	X	Y	Z
8-3(I)	0	90	-	-	-
8-3(II)	0	-	-	-	-
8-4	0	45	-	-	-
10-6	0	90	-	-	-
10-7	0	-	-	-	-
12-3	0	-	-	180	-
12-10	0	60	155	270	295
14-5(I)	0	40	92	184	273
14-12	0	43	90	-	-
14-15	0	17	110	155	234
14-19	0	30	165	315	-
16-8(I)	0	54	152	180	331
16-23(I)	0	158	270	-	-
16-26	0	60	-	275	338
18-11	0	62	119	241	340
18-32	0	85	138	222	265
20-16	0	238	318	333	347
20-41	0	45	126	225	-
22-21	0	16	135	175	349

### Dimensions (in millimetres)

#### 3112S, Box Mount Receptacle Square Flange



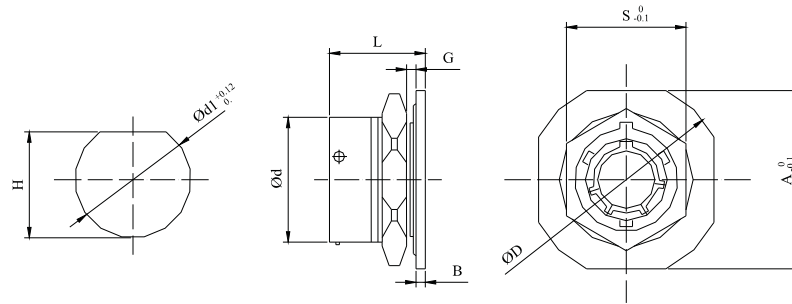
Shell	A	B	D	d	M	L1	L
08	21	15.09	12.04	3.15	11	12.5	21
10	24.2	18.26	15.01				22
12	26.54	20.62	19.0				
14	28.9	23	22.2				
16	31.3	24.6	25.4		14.12	16.32	21
18	33.69	27	28.6				23
20	36.89	29.36	31.75				
22	39.95	31.75	35				26.5
24	43.15	34.93	38.2		14.96	17.16	



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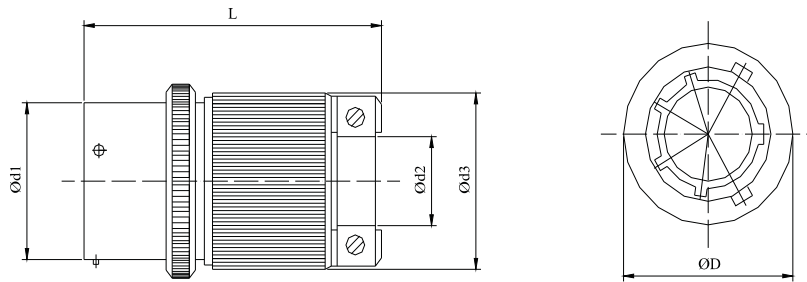
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### 3114, Jam-nut Receptacle



Shell	G		d +0/-0.1	B	D	S	A	L	d1	H
	Min	Max								
08	1.57	3.17	12.04	3.0	27.25	19.30	23.8	21.5	14.60	13.28
10			15.00		30.5	22.4	26.95		17.75	16.95
12			19.00		34.5	27	32		22.50	20.9
14			22.00		39	30.33	35		25.70	24
16			25.41		41.25	33.3	38.24		28.85	27.35
18			28.60		44.6	36.7	41.5		32.05	30
20	6.35		31.71	3.8	49	39.8	46	26.5	35.02	33.5
22			35.00		52.24	43.13	49.24		38.40	36.94
24			38.20		55.8	46	52.5		41.55	40.5

### 3111C, Cable-connecting Receptacle with Cable Clamp



Shell	D	d1	d2	K	L	d3
08	21	12.04	6	16	36.5	16
10	24.2	15.01	8	19.5		19.5
12	26.54	19.0	10	22.5	43	22.5
14	28.9	22.2	12	25.5		25.5
16	31.3	25.4	14	27.9	49	27.9
18	33.69	28.6	17	30.5		30.5
20	36.89	31.75	20	34.5	53	34.5
22	39.95	35	24	38.5		38.5
24	43.15	38.2	27	41.5		41.5

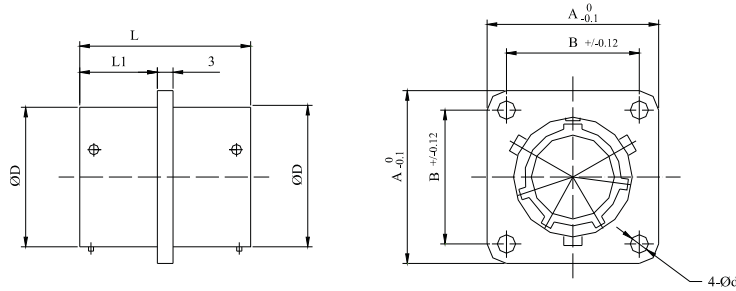


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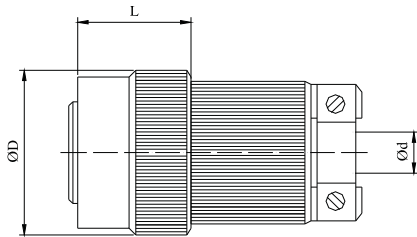
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### 3119, Thru bulkhead Receptacle



Shell	A	B	D	L1	d	L
08	21	15.09	12.04	15	3.13	33
10	24.2	18.26	15.01			
12	26.54	20.62	19.0			
14	28.9	23	22.2			
16	31.3	24.6	25.4			
18	33.69	27	28.6			
20	36.89	29.36	31.75	16.5	3.7	36
22	39.95	31.75	35			
24	43.15	34.93	38.2			

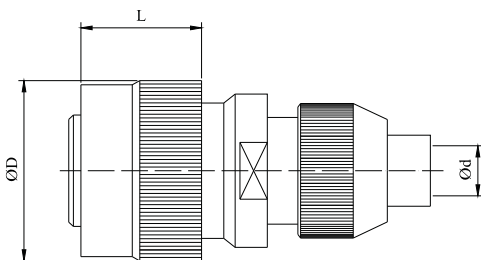
### 3116C, Straight Plug, with Cable Clamp Backshell



Plug with grommet and grommet nut fitted with integral strain relief clamp.

Shell	D	d	L
08	19	6	18
10	22	8	
12	25	10	
14	30	12	
16	32	14	
18	35	17	
20	39	20	19
22	42	24	
24	45.5	27	

### 3116G, Straight Plug, with Grounding Backshell



For screened jacket cable, and rubber boot can be attached for better strain relief.

Shell	D	d	L
08	19	6.1	18
10	22	7.1	
12	25	11.1	
14	30	12.1	
16	32	14	
18	35		
20	39	16	19
22	42		
24	45.5		



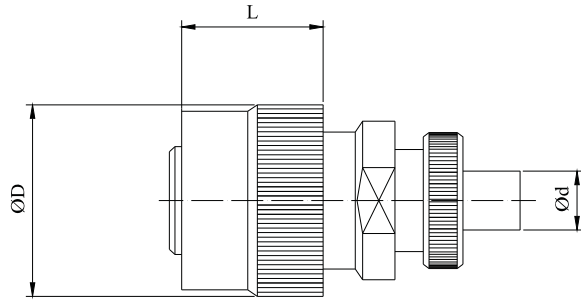


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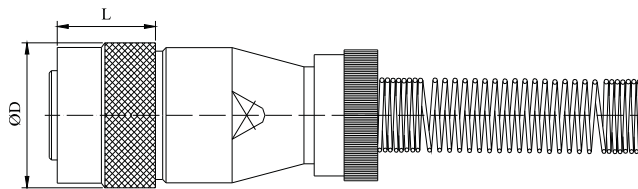
### 3116R, Straight Plug, with Stress-resistant Backshell



For unscreened jacket cable, no grommet is supplied and rubber boot can be attached for better strain relief.

Shell	D	d	L
08	19	6	18
10	22	7	
12	25	9	
14	30	11.5	
16	32	14	
18	35		
20	39	16	19
22	42		
24	45.5		

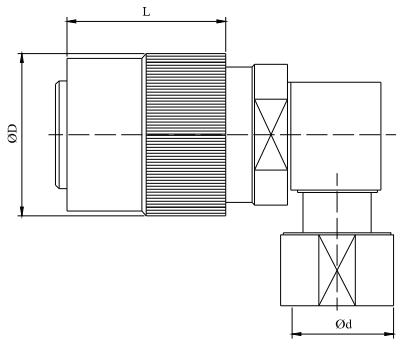
### 3116S, Straight Plug, with Spring-guard Backshell



For screened jacketed cable and extra strain relief.

Shell	D	d	L
08	19	6.1	18
10	22	7.1	
12	25	11.1	
14	30	12.1	
16	32	14	
18	35		
20	39	16	19
22	42		
24	45.5		

### 3118N, Right-angle Plug, with Tail-nut Backshell



Low profile solder termination plug with screened cable outlet and grommet.

Shell	D	d	L
08	19	6.1	18
10	22	7.1	
12	25	11.1	
14	30	12.1	
16	32	14	
18	35		
20	39	16	19
22	42		
24	45.5		

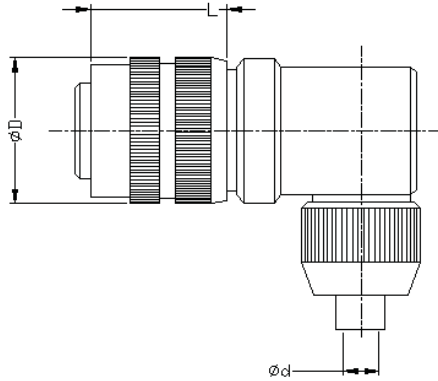


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### 3118G, Right-angle Plug, with Grounding Backshell



Shell	D	d	L
08	19	6.1	18
10	22	7.1	
12	25	11.1	
14	30	12.1	
16	32	14	
18	35		
20	39	16	19
22	42		
24	45.5		