

F SERIES

(OUTDOOR HALF-SHELL)



MAIN FEATURES:

1. Security of the push –pull self-latching system

2. Multipole types 2 to 19 contacts

3. Solder or PCB contacts (straight or elbow)

4. High Packing density for space saving
5. Half-shell key to avoid cross mating

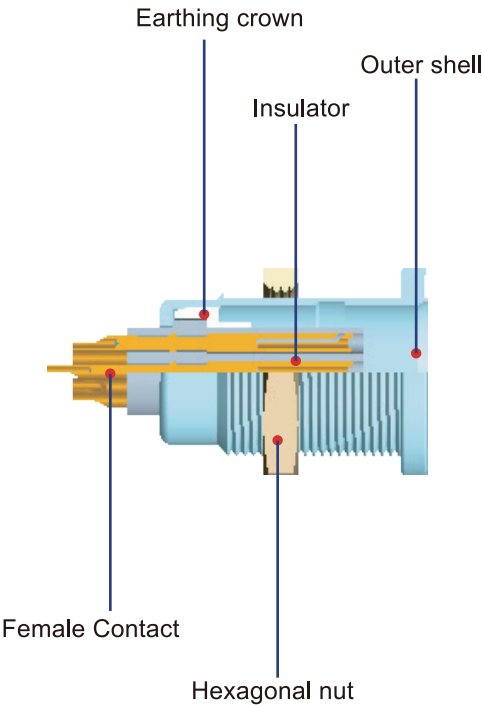
6. 360° screening for full EMC shielding

7. Vacuum-tight socket suitable for vacuum equipment

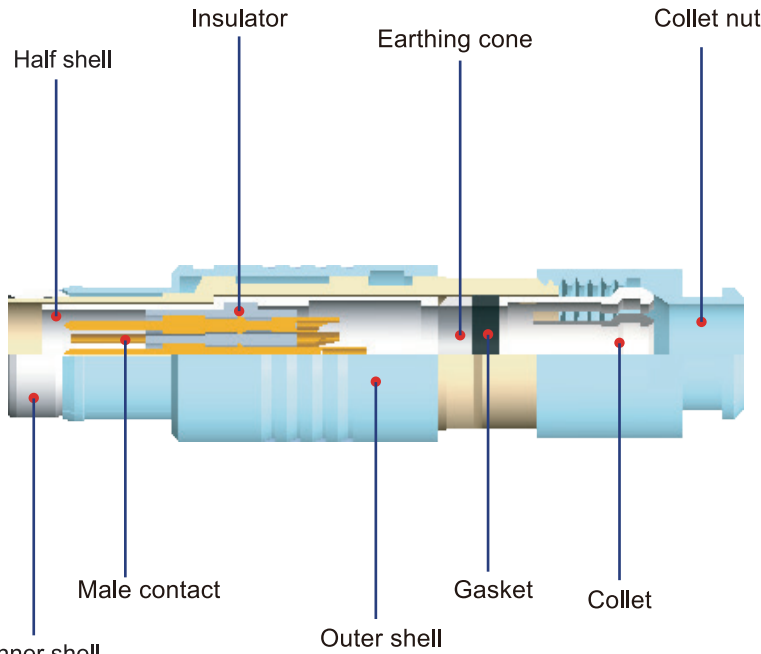
PART SECTION SHOWING INTERNAL COMPONENTS

F series

Fixed socket



Straight plug



Part Numbering System

Plug **1F** **T1** **G** **06** **C** **L** **A** **50** **4** **2** **0**
Free socket **1F** **Z4** **G** **06** **C** **L** **L** **50** **4** **2** **0**
Fixed socket **1F** **Z13** **G** **06** **C** **L** **L** **00** **0** **0** **0**

1.Series: (Page 92)

2.Housing model: (Page 92)

3.Alignment key: (Page 100)

4.Insert configuration: (Page 98)

5.Housing material
C=Chrome plated brass
K=Black Chrome plated brass
N=Nickel plated brass
L=Aluminium alloy anodized

6.Insulator material
L=PPS、T=PTFE

7.Contact type
A=Solder male L=Solder female
N=Print female V=Print female 90°
W=Print male 90° D=Print male

8.Cable OD: (Page 100)

9.Outer shell patterns
4=Circle pattern

10.Collet Nut Type
2=Collet nut for bend relief
3=Flat (without bend relief)
8=Short collet nut for overmolding for T7 plug

11.Earthing tag
0=Without earthing tag
1=With earthing tag

PART NUMBER EXAMPLE:

Straight plug with cable collet:

1FT1G06CLA50420=1F series straight plug with single half-shell key(G) and cable collet, multipole type with 6 contacts, chrome plated brass outer shell, PPS insulator, solder male contacts, collet for 5.0mm diameter cable, circle outer shell pattern, collet nut for bend relief, without earthing tag.

Free socket:

1FZ4G06CLL50420=1F series free socket with single half-shell key(G) and cable collet, multipole type with 6 contacts, chrome plated brass outer shell, PPS insulator, solder female contacts, collet for 5.0mm diameter cable, circle outer shell pattern, collet nut for bend relief, without earthing tag.

Fixed socket:

1FZ13G06CLL00000=1F series fixed socket with single half-shell key(G), multipole type with 6 contacts, chrome plated brass outer shell, PPS insulator, solder female contact, without earthing tag.

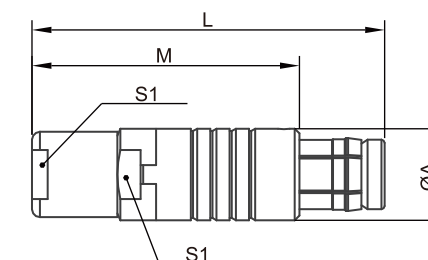
TECHNICAL CHARACTERISTICS

Characteristics	Parameter
Locking Type	push pull self-latching type
Working Temperature	-55°~+250°
Maximum Humidity	up to 95% at 60°/140°F
Shielding Efficiency	75dB(10MHz) 40dB(1GHz)
Resistance to Vibration	15g[10Hz~2000Hz]

Characteristics	Parameter
Salt spray corrosion test	96hr
Shock resistance	100g,6ms
Endurance	5000 cycles
Protection index(mated)	IP68

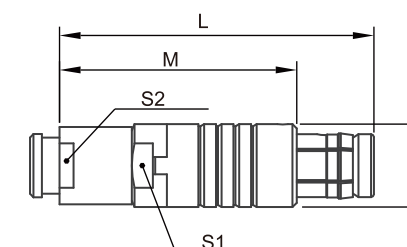
Housing Models

T1 PLUG STANDARD PLUG WITH HALF-SHELL KEY(G OR A), CABLE COLLET



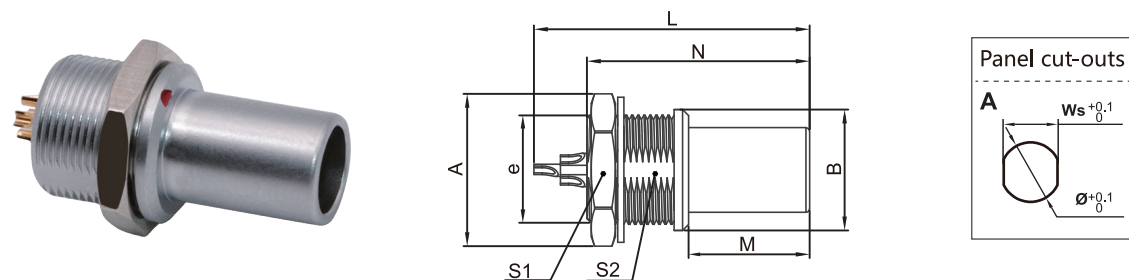
Reference		Dimensions(mm)				
Series	Model	A	L	M	S1	S2
0F	T1	9.5	38	28	8	8
1F	T1	12	46.6	35.6	9	9
2F	T1	15	50.3	38	13	13
3F	T1	18.7	58	43.4	16	17
4F	T1	28.6	94	68.8	25	25

T1 PLUG STANDARD PLUG WITH HALF-SHELL KEY(G OR A), CABLE COLLET AND NUT FOR FITTING A BEND RELIEF



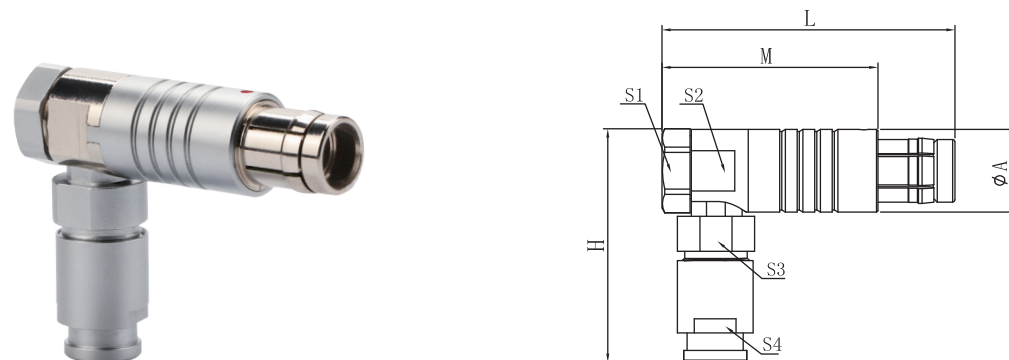
Reference		Dimensions(mm)				
Series	Model	A	L	M	S1	S2
0F	T1	9.5	36	26	8	8
1F	T1	12	45	34	9	9
15F	T1	12.9	47.3	37	11	12
2F	T1	15	50	37.5	13	13
3F	T1	18.7	58	44.2	16	17

T2 PLUG FIXED PLUG, NON-LATCHING, NUT FIXING, HALF-SHELL KEYED(G OR A)



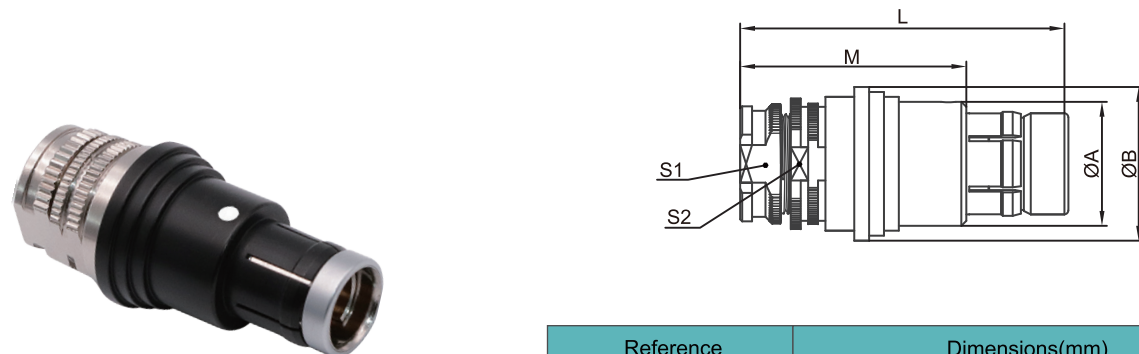
Reference		Dimensions(mm)								Panel cut-outs		
Series	Model	A	B	L	M	N	S1	S2	e	Ws	Ø	Type
0F	T2	12.6	10.0	21.0	10.0	18.4	11.0	8.2	M9*0.5	8.5	9.1	A
1F	T2	16.0	17.0	25.8	11.0	22.5	14.0	10.5	M12*1.0	10.6	12.1	A
15F	T2	19.0	18.8	30.0	10.0	26.0	17.0	12.0	M14*1.0	12.1	14.1	A

T3 PLUG 90 DEGREE PLUG, WITH HALF-SHELL KEY (G OR A), CABLE COLLET



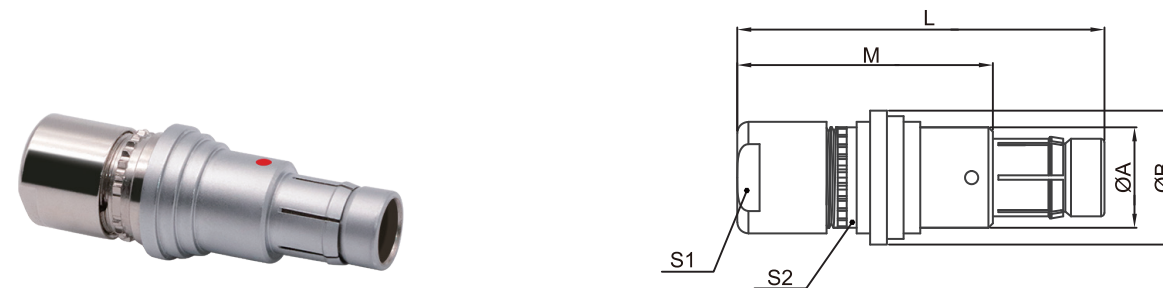
Reference		Dimensions(mm)							
Series	Model	A	H	M	L	S1	S2	S3	S4
0F	T3	14.5	27.1	29	39	9	8	8	8
1F	T3	11.8	33.4	31.3	42.1	11	10	10	9

T7 PLUG SHORT TYPE STRAIGHT PLUG, WITH HALF-SHELL KEY (G OR A), CABLE COLLET



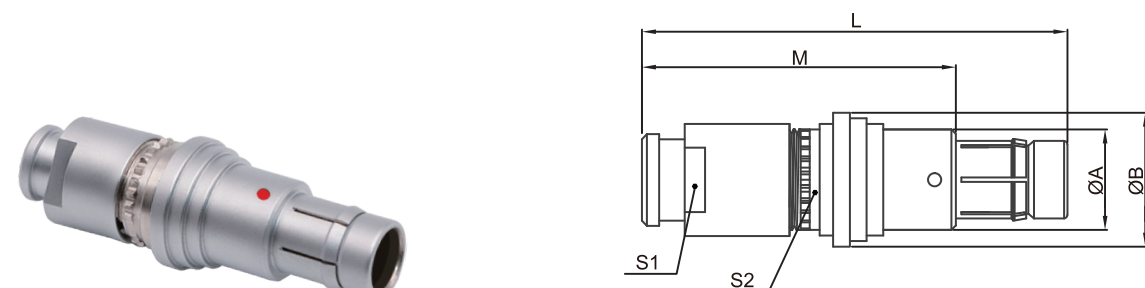
Reference		Dimensions(mm)					
Series	Model	L	A	M	B	S1	S2
1F	T7	32.8	11.8	22	15	10	11
15F	T7	33.2	12.5	23.2	15.5	10	11

TX PLUG SHORT TYPE STRAIGHT PLUG, WITH HALF-SHELL KEY (G OR A), CABLE COLLET



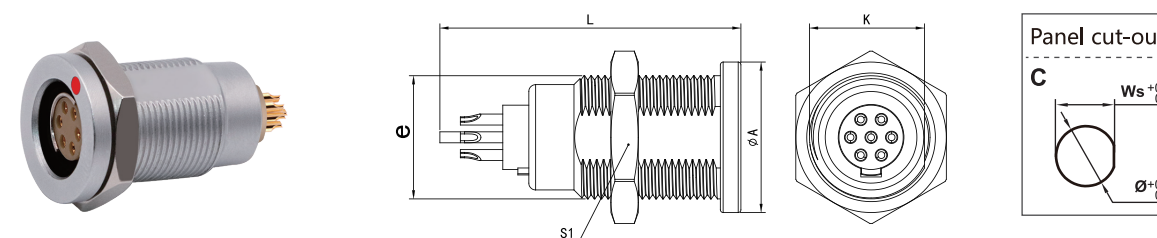
Reference		Dimensions(mm)					
Series	Model	A	B	M	L	S1	S2
0F	TX	9	12	23.5	33.5	8	9

TX PLUG SHORT TYPE STRAIGHT PLUG, WITH HAL-SHELL KEY (G OR A), CABLE COLLET NUT FOR FITTING A BEND RELIEF



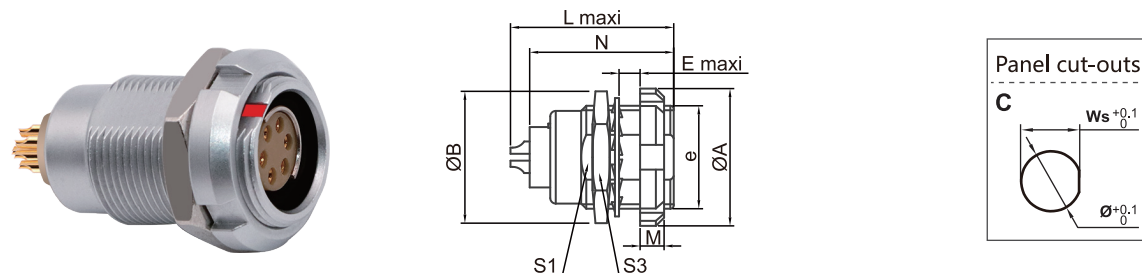
Reference		Dimensions(mm)					
Series	Model	A	B	M	L	S1	S2
0F	TX	9	12	26.5	36.5	8	9

Z1 SOCKET FIXED SOCKET, PANEL MOUNT, NUT FIXING, WITH HALF-SHELL KEY (G OR A)



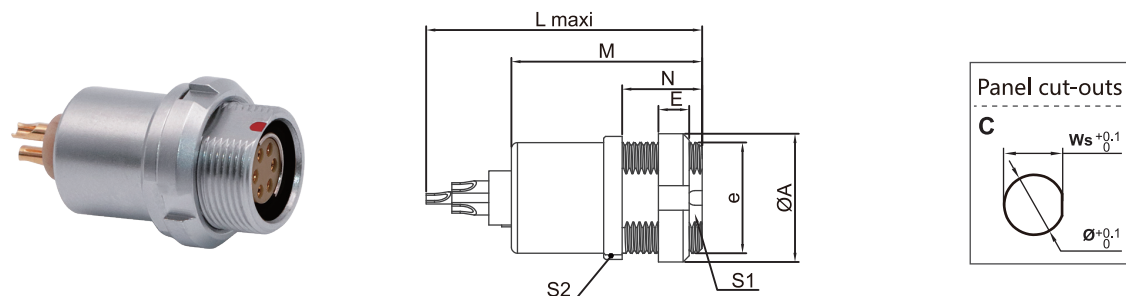
Reference		Dimensions(mm)					Panel cut-outs		
Series	Model	L	A	K	S	e	Ws	Ø	Type
0F	Z1	22	11	8.4	11	M9*0.5	8.5	9.1	C
1F	Z1	23.8	14	11.1	14	M12*1.0	11.2	12.1	C

Z2 SOCKET FIXED SOCKET WITH TWO NUTS, WITH HALF-SHELL KEY(G OR A)



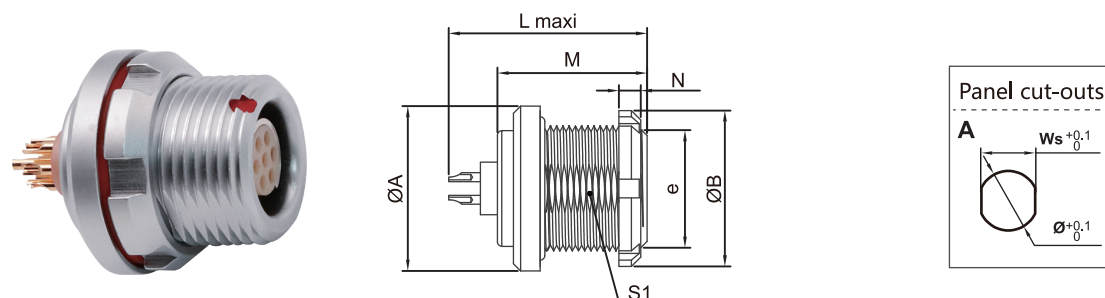
Reference		Dimensions(mm)									Panel cut-outs		
Series	Model	A	B	E	M	P	N	L	S1	e	Ws	Ø	Type
0F	Z2	12	22	2.5	2.5	7	16.0	22.5	8.4	M9*0.5	8.5	9.1	A
1F	Z2	16	27.7	5.5	3.5	10	21.5	30.0	11	M12*1*0	11.2	12.1	A

Z3 SOCKET FIXED SOCKET, BACK PANEL MOUNT, NUT FIXING, WITH HALF-SHELL KEY (G OR A)



Reference		Dimensions(mm)								Panel cut-outs		
Series	Model	A	E	L	M	N	S1	S2	e	Ws	Ø	Type
0F	Z3	12	2.5	21	15.5	6.5	8.4	10	M9*0.5	8.5	9.1	C
15F	Z3	17.9	3.5	21.7	18	7	12	-	M14*1.0	12.1	14.1	C

Z3 SOCKET FIXED SOCKET, BACK PANEL MOUNT, NUT FIXING, WITH HALF-SHELL KEY (G OR A)



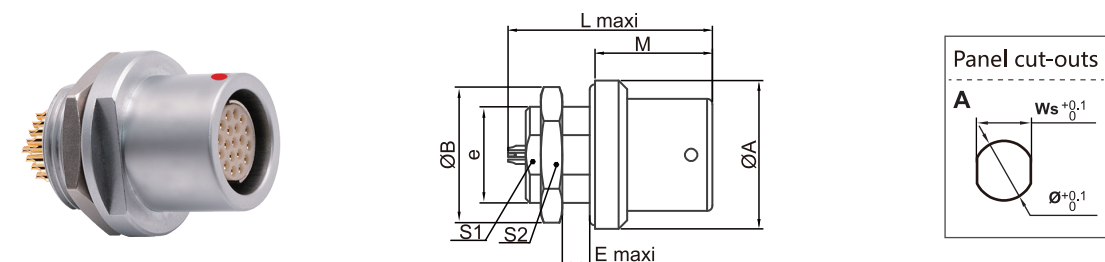
Reference		Dimensions(mm)							Panel cut-outs		
Series	Model	A	B	L	M	N	S1	e	Ws	Ø	Type
1F	Z3	18.5	18	23.5	16.8	3.5	12.5	M14*1.0	12.1	14.1	A

Z4 SOCKET FREE SOCKET, CABLE MOUNT, KEY (G OR A), CABLE COLLET AND NUT FOR FITTING A BEND RELIEF



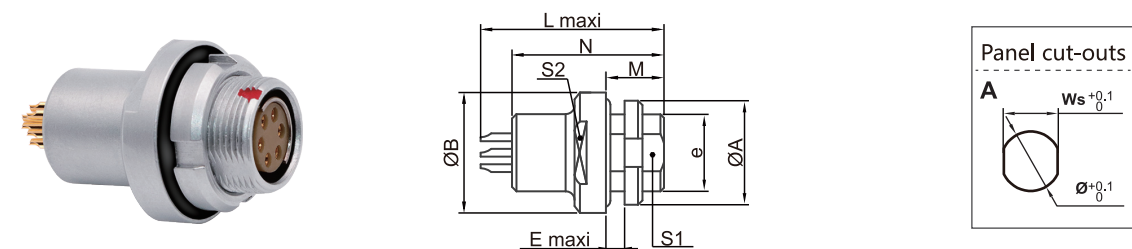
Reference		Dimensions(mm)			
Series	Model	A	L	S1	S2
0F	Z4	10	34	8	8
1F	Z4	12.8	45	10	9

Z6 SOCKET FIXED SOCKET, VACUUM-TIGHT , PANEL MOUNT, WITH HALF-SHELL KEY (G OR A)



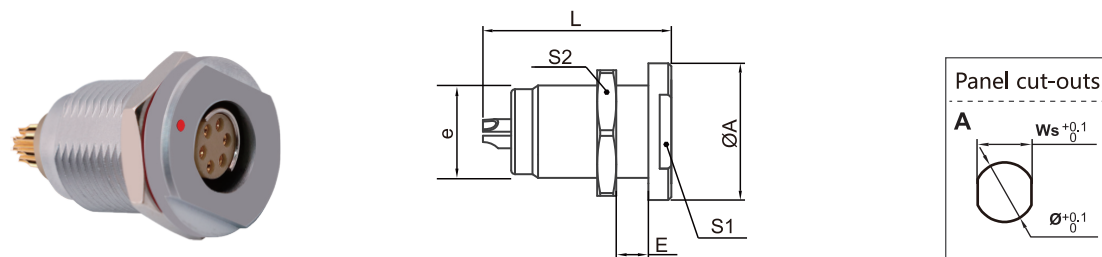
Reference		Dimensions(mm)								Panel cut-outs		
Series	Model	A	B	E	M	L	S1	S2	e	Ws	Ø	Type
0F	Z6	13.9	12.5	5.0	10.2	23	8	11	M9*0.5	8.3	9.1	A
1F	Z6	18.8	19.2	4.0	13.2	23.5	12	17	M14*1.0	12.1	14.1	A
2F	Z6	21.8	22	3.5	16	25.5	14.5	19	M16*1.0	14.6	16.1	A
4F	Z6	39.8	38	6	25.5	50.5	30.8	23	M32*1.0	30.9	32.1	A

Z13 SOCKET FIXED SOCKET, VACUUM-TIGHT, BACK PANEL MOUNT, WITH HALF-SHELL KEY (G OR A)



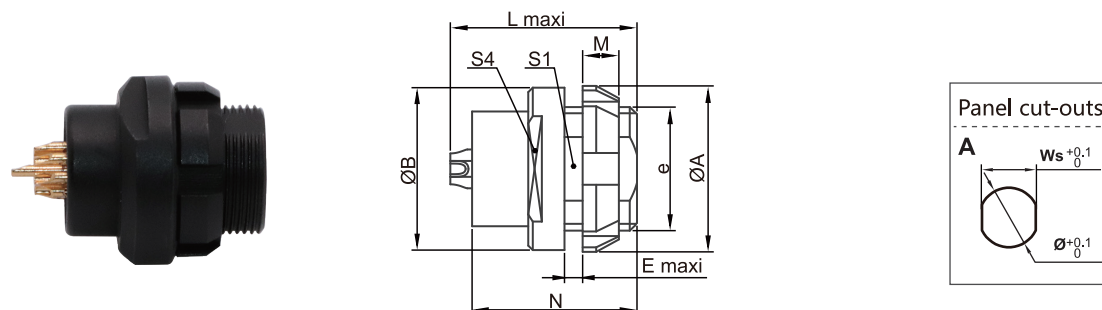
Reference		Dimensions(mm)									Panel cut-outs		
Series	Model	L	A	B	N	E	M	S1	S2	e	Ws	Ø	Type
1F	Z13	24.7	18	19	21	2.5	6	12.3	15	M14*1.0	12.4	14.1	A
15F	Z13	24.5	17.9	18.8	19.5	3.5	7	12	15	M14*1.0	12.1	14.1	A
2F	Z13	25.1	20	22	21.6	4	8	15	17	M16*1.0	14.6	16.1	A

Z16 SOCKET FIXED SOCKET, VACUUM-TIGHT, PANEL-MOUNT, NUT FIXING, WITH HALF-SHELL KEY (G OR A)



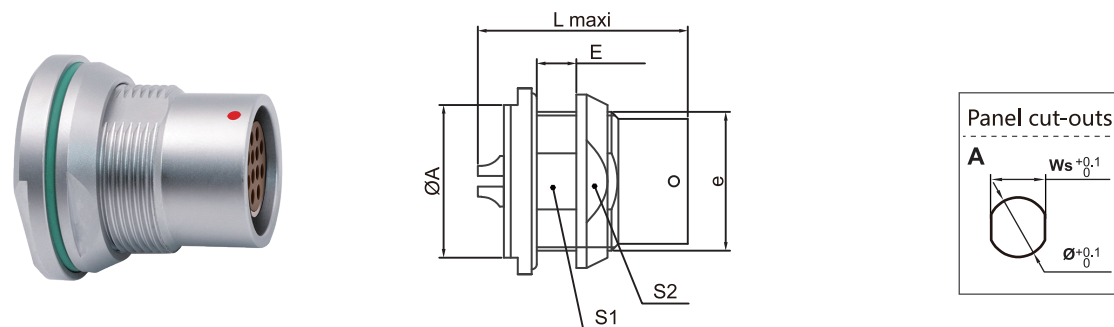
Reference		Dimensions(mm)						Panel cut-outs		
Series	Model	A	L	E	S1	S2	e	Ws	Ø	Type
0F	Z16	14	17.8	6.5	9	12	M10*0.5	9.1	10.1	A
1F	Z16	18.5	24.7	12	14	17	M14*1.0	12.6	14.1	A
2F	Z16	21.8	25.5	8.5	14.8	19	M16*1.0	14.6	16.1	A

Z20 SOCKET FIXED SOCKET, VACUUM-TIGHT, BACK PANEL MOUNT, WITH HALF-SHELL KEY (G OR A)



Reference		Dimensions(mm)								Panel cut-outs			
Series	Model	A	B	E	L	M	N	S1	S4	e	Ws	Ø	Type
0F	Z20	12	12	3.5	17	2.5	13.6	8.2	11	M9*0.5	8.3	9.1	A

ZX SOCKET FIXED SOCKET, VACUUM-TIGHT, BACK PANEL MOUNT, WITH HALF-SHELL KEY (G OR A)



Reference		Dimensions(mm)						Panel cut-outs		
Series	Model	A	L	E	S1	S2	e	Ws	Ø	Type
3F	ZX	22	30	7	18.3	22	M20*1.0	18.4	20.1	A

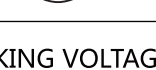
INSERT CONFIGURATION (Multipole)

Series	Code	Solder contacts		Contact ø(mm)	Resistance (mΩ)	Rated current (A)	Test voltage (V)	Working voltage (V)
		Male	Female					
0F	02			0.9	6	10	1000	500
	03			0.9	6	8	875	400
	04			0.7	7.5	7	875	300
	05			0.7	7.5	6.5	750	300
	06			0.5	10	2.5	750	300
	07			0.5	10	2.5	750	300
	09			0.5	10	2	600	200
1F	02			1.3	5	15	1500	500
	03			1.3	5	12	1300	430
	04			0.9	6	10	1300	430
	05			0.9	6	9	1250	415
	06			0.7	7.5	7	1050	350
	07			0.7	7.5	7	950	315
	08			0.7	7.5	5	950	315
	10			0.5	1.0	2.5	900	300
	12			0.5	10	2	800	260
	14			0.5	10	2	800	260

INSERT CONFIGURATION (Multipole)

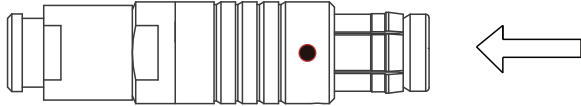
Series	Code	Solder contacts		Contact ø(mm)	Resistance (mΩ)	Rated current (A)	Test voltage (V)	Working voltage (V)
								
15F	10			0.7	7.5	4.5	1500	500
	12			0.7	7.5	4.2	1500	500
	19			0.5	10	2.5	900	300
2F	03			1.6	4	17	2400	800
	04			1.3	5	15	1850	810
	05			1.3	5	14	1750	580
	08			0.9	6	10	1500	500
	09 (8+1)			1.3*1	5	12	2200	730
				0.9*8	6	6	1500	500
	11			0.9	6	10	1250	450
	16			0.7	7.5	6	950	315
3F	02			3.0	6	35	2100	700
	04			2.0	3	20	1800	320
	07 (6+1)			2.0*1	5	12	2200	730
				1.3*6	6	6	1500	500
	15			0.9	6	5.3	1600	250
4F	12			2.0	3	16	2200	500

INSERT CONFIGURATION (MIXED: COAX+LV)

Series	Code	Number of contacts	Solder contacts		Contact ø(mm)	Resistance (mΩ)	Rated current (A)	Test voltage (V)	Working voltage (V)	Impedanc (Ω)
			Male	Female						
2F	804	4			0.7	6	7	900	400	-
		1 Coax			0.7	6	7	1850	610	50

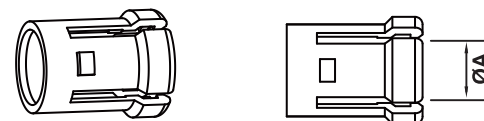
CACULATION METHOD: WORKING VOLTAGE= TEST VOLTAGE/3

ALIGNMENT KEY

Key of plug	Diagram	
	Single half shell	Double half shell
		
Key code	G	A

COLLET

(The material of collet is nickel plated brass)



Code	ColletØA (mm)	Cable DiaØ(mm)		Series				
		min.	max.	0F	1F	15F	2F/2W	3F
30	3.0	2.6	3.0	●	●			
37	3.7	3.2	3.7	○				
40	4.0	3.6	4.0	●	●			
45	4.5	4.6	5.0	○				
50	5.0	5.1	5.5	●	●	○	●	
52	5.2	4.8	5.2	○				
60	6.0	5.6	6.0		●	○	●	●
65	6.5	6.1	6.5	○				
70	7.0	6.1	7.0					●
77	7.7	7.1	7.7				●	
80	8.0	7.5	8.0				●	
90	9.0	8.5	9.0				●	
10	10.0	9.5	10.0				●	

○ Protection index(mated):IP50&IP68

● Protection index(mated):IP68