

# F SERIES

(OUTDOOR HALF-SHELL)



## MAIN FEATURES:

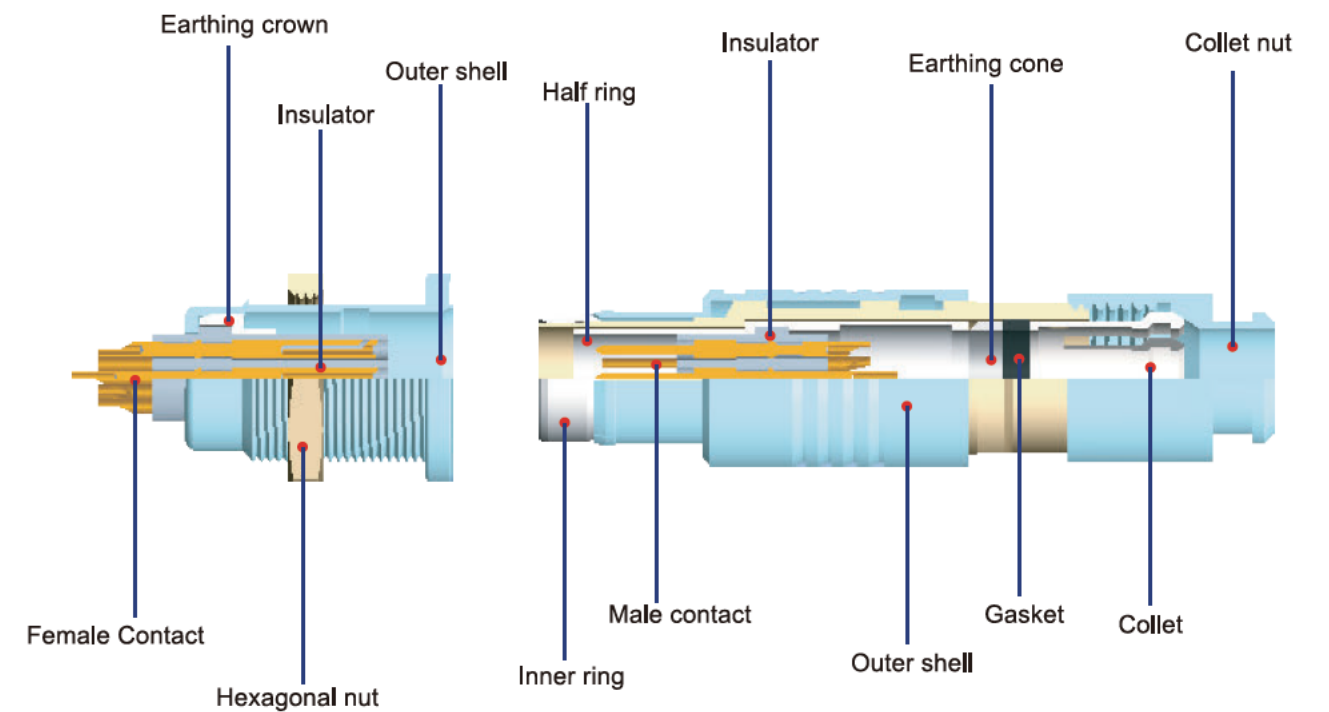
1. Security of the push –pull self-latching system
2. Multipole types 2 to 19 contacts
3. Solder or PCB contacts (straight or elbow)
4. High Packing density for space saving
5. Half-shell key to avoid cross mating
6. 360° screening for full EMC shielding
7. Vacuum-tight socket suitable for vacuum equipment

## PART SECTION SHOWING INTERNAL COMPONENTS

### F series

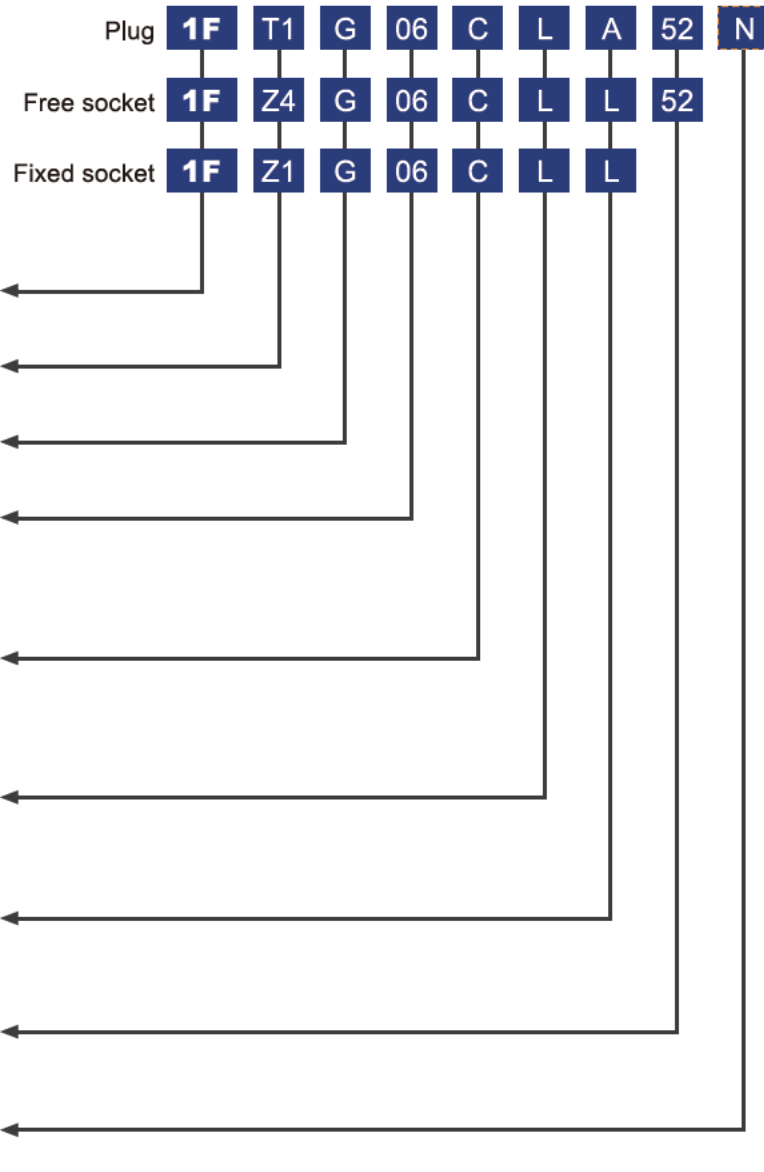
Fixed socket

Straight plug



**F SERIES**

### Part Numbering System



1. Series: (Page 84)
2. Housing model: (Page 84)
3. Alignment key: (Page 92)
4. Insert configuration: (Page 90)
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 92)
9. Bend relief color, blank if without bend relief  
N=Black, G=Grey, A=Blue  
R=Red, J=Yellow, V=Green: (Page 145)

### PART NUMBER EXAMPLE:

#### Straight plug with cable collet:

0FT1G06CLA52N=0F series straight plug with single half-shell key(G) and cable collet, multipole type with 6 contacts, outer shell in chrome plated brass, PPS insulator, solder male contacts, collect for 5.0mm diameter cable with a black bend relief.

#### Free socket:

0FZ4G06CLL52=0F series free socket with single half-shell key(G) and cable collet, multipole type with 6 contacts, outer shell in chrome plated brass, PPS insulator, solder female contacts, collect for 5.0mm diameter cable.

#### Fixed socket:

0FZ13G06CLL=0F series fixed socket, nut fixing, with single half-shell key(G), Multipole type with 6 contacts, outer shell in chrome plated brass, PPS insulator, solder female contacts.

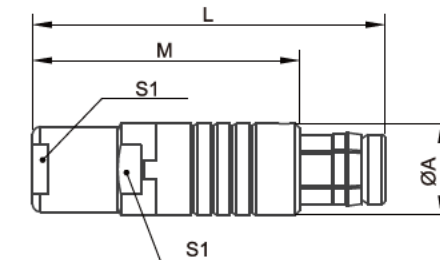
### TECHNICAL CHARACTERISTICS

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

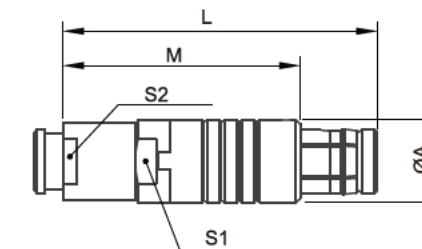
### Housing Models

#### T1 PLUG STRAIGHT PLUG, WITH HAL-SHELL KEY (G OR A), CABLE COLLET



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

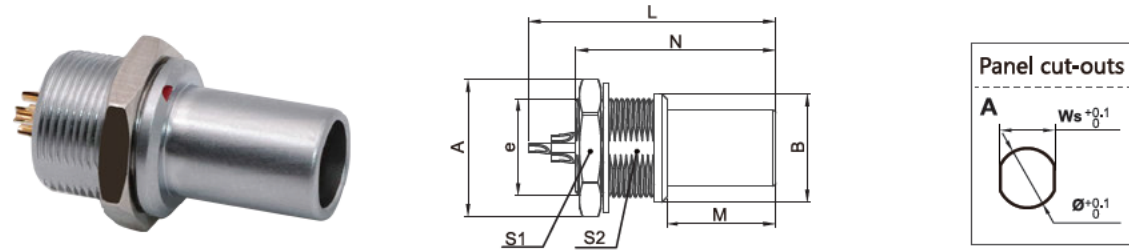


Reference		Dimensions(mm)				
Series	Model	A	L	M	S1	S2
0F	T1	9.5	36	26	8	8
1F	T1	12	45	34	9	9
2F	T1	15	50	37.5	13	13
3F	T1	18.7	58	44.2	16	17

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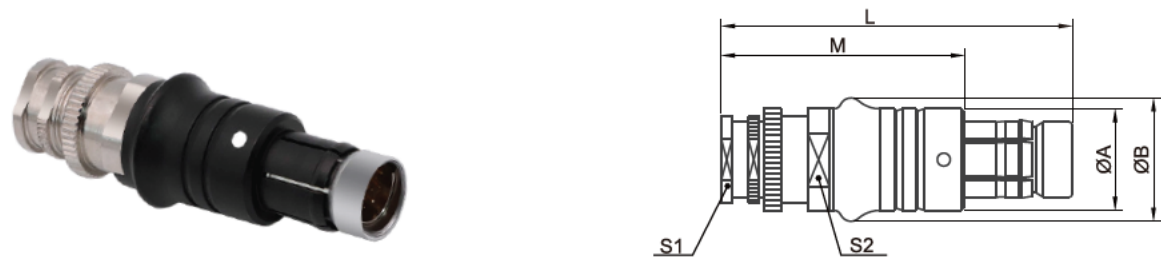


**T2 PLUG** FIXED PLUG, HALF-SHELL KEY (G OR A), CABLE COLLET



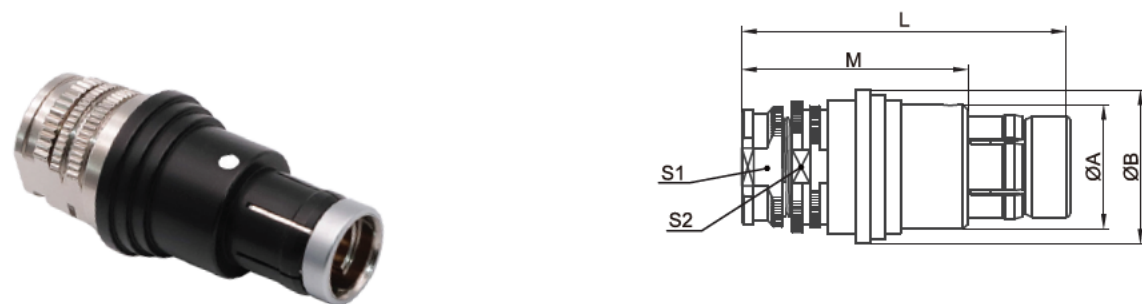
Reference		Dimensions(mm)							Panel cut-outs			
Series	Model	A	B	L	M	N	S1	S2	e	Ws	Ø	Type
0F	T2	12.6	10.0	21	10.0	18.4	11.0	8.2	M9*0.5	8.5	9.1	A
15F	T2	19.0	18.8	30	10	26	17.0	12.0	M14*1.0	12.0	14.1	A

**T7 PLUG** STRAIGHT PLUG, WITH HAL-SHELL KEY (G OR A), CABLE COLLET



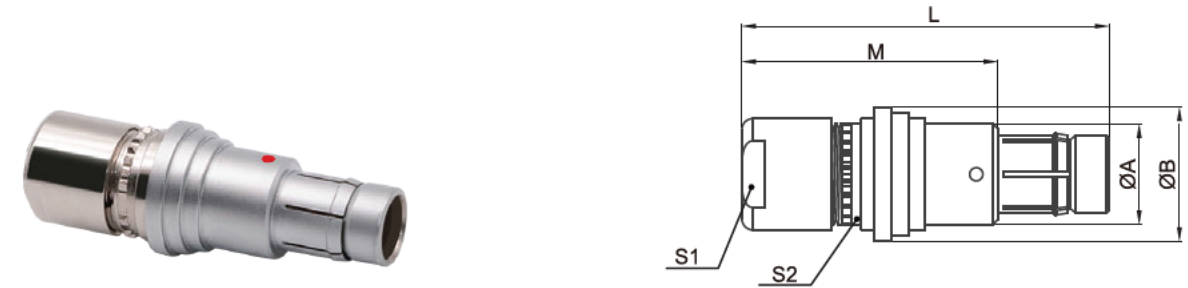
Reference		Dimensions(mm)					
Series	Model	A	B	L	M	S1	S2
0F	T7	9.4	11.4	32.5	22.5	8	7

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



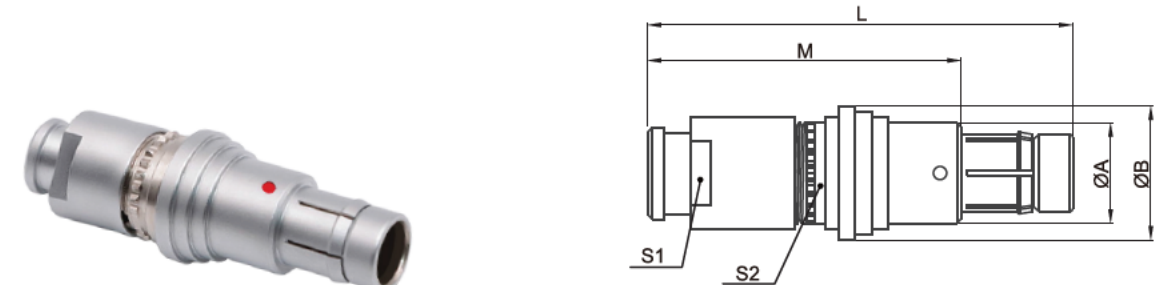
Reference		Dimensions(mm)					
Series	Model	L	A	M	B	S1	S2
1F	T7	32.8	11.8	22	15	10	11
15F	T7	33.2	12.5	23.2	15.5	10	11

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



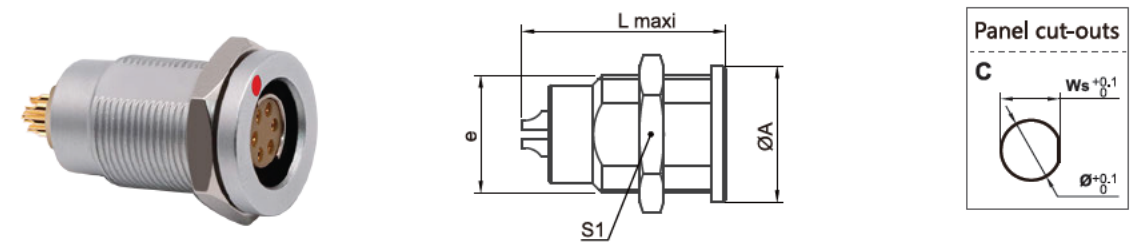
Reference		Dimensions(mm)					
Series	Model	A	B	M	L	S1	S2
0F	TX	9	12	23.5	33.5	8	9

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



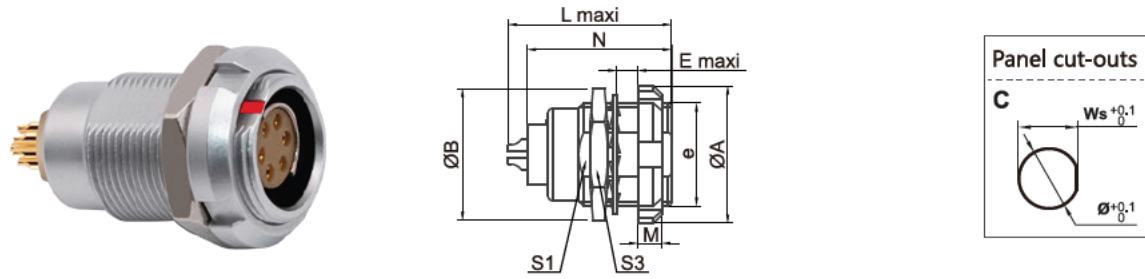
Reference		Dimensions(mm)					
Series	Model	A	B	M	L	S1	S2
0F	TX	9	12	26.5	36.5	8	9

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



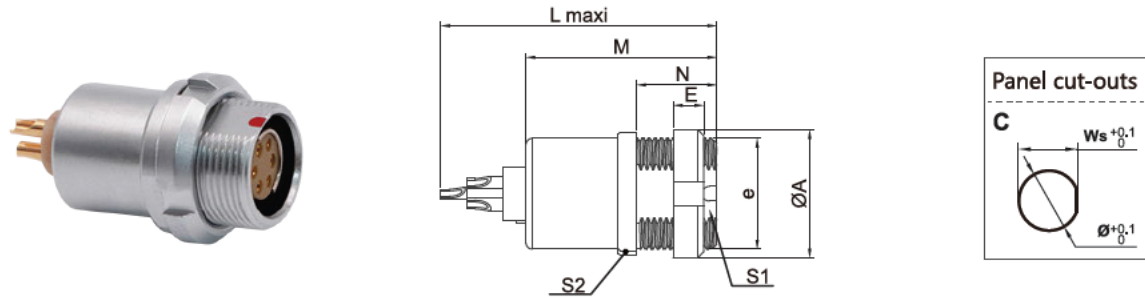
Reference		Dimensions(mm)						Panel cut-outs		
Series	Model	L	A	K	S	e	Ws	Ø	Type	
0F	Z1	22	11	8.4	11	M9*0.5	8.5	9.1	C	
1F	Z1	23.8	14	11.1	14	M12*1.0	11.2	12.1	C	

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



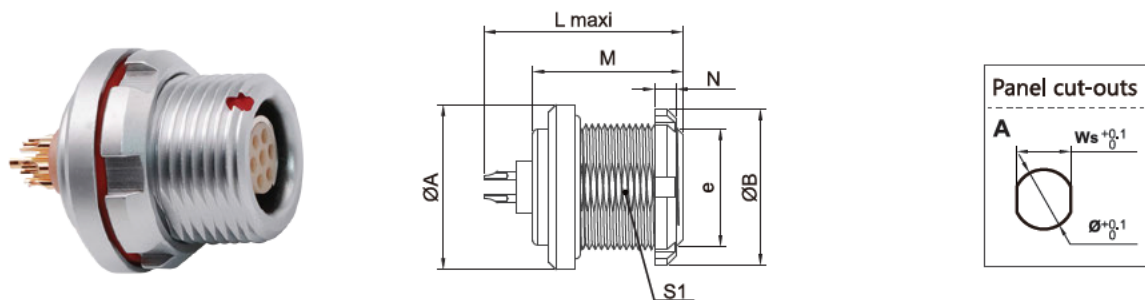
Reference		Dimensions(mm)										Panel cut-outs		
Series	Model	A	B	E	M	P	N	L	S1	e	Ws	Ø	Type	
0F	Z2	12	22	2.5	3.5	7	16.0	22.5	12.5	M9*0.5	8.5	9.1	C	
1F	Z2	16	27.7	5.5	3.0	10	21.5	30.0	14.5	M12*1.0	11.2	12.1	C	

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



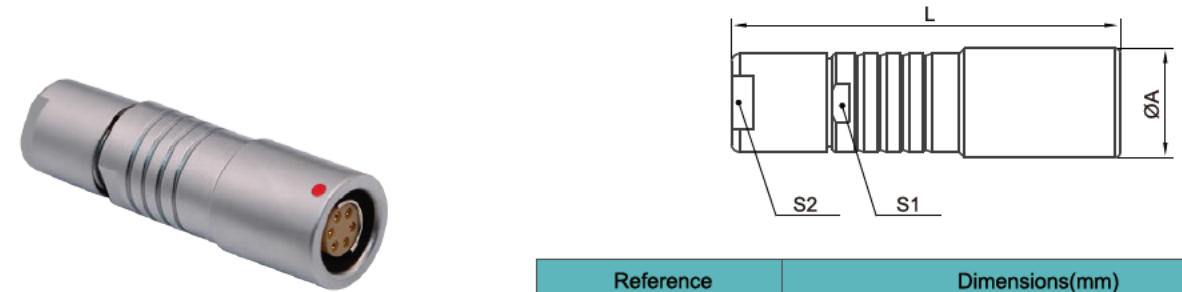
Reference		Dimensions(mm)									Panel cut-outs			
Series	Model	A	E	L	M	N	S1	S2	e	Ws	Ø	Type		
0F	Z3	12	2.5	21	15.5	6.5	8.4	10	M9*0.5	8.5	9.1	C		

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



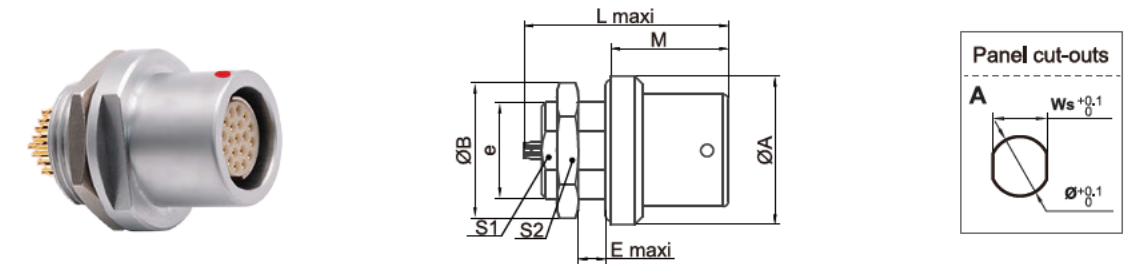
Reference		Dimensions(mm)										Panel cut-outs		
Series	Model	A	B	L	M	N	S1	e	Ws	Ø	Type			
1F	Z3	18.5	18	23.5	16.8	3.5	12.5	M14*1.0	12.1	14.1	A			

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



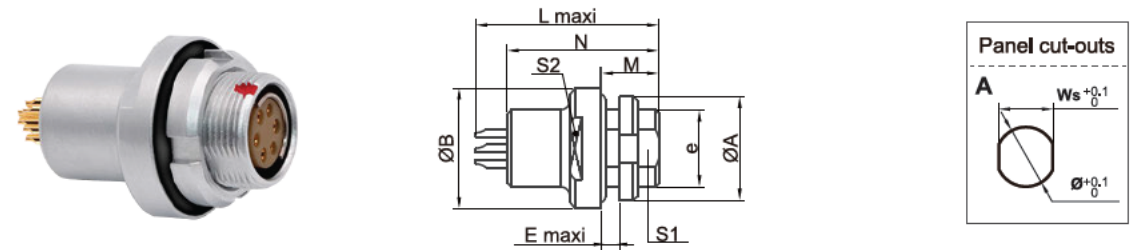
Reference		Dimensions(mm)			
Series	Model	A	L	S1	S2
0F	Z4	10	34	8	8
1F	Z4	12.8	45	10	9
2F	Z4	19	53	13	13
3F	Z4	23	65	16	15

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



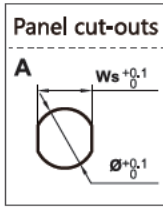
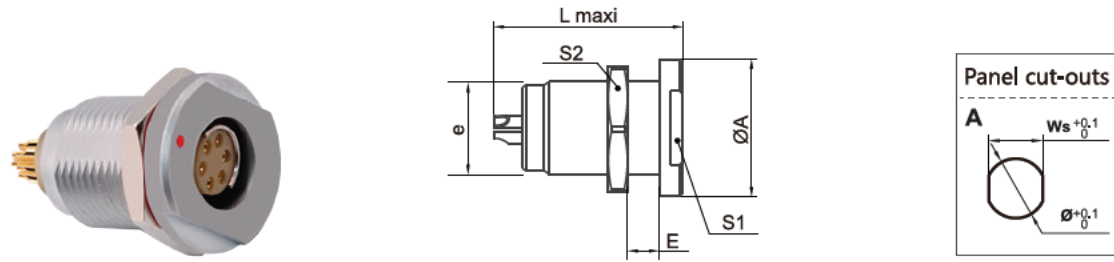
Reference		Dimensions(mm)									Panel cut-outs			
Series	Model	A	B	E	M	L	S1	S2	e	Ws	Ø	Type		
0F	Z6	13.9	12.5	5.0	10.2	23	8	11	M9*0.5	8.3	9.1	A		
1F	Z6	18.8	19.2	4.0	13.2	23.5	12	17	M14*1.0	12.1	14.1	A		
2F	Z6	21.8	22	3.5	16	25.5	14.5	19	M16*1.0	14.6	16.1	A		
4F	Z6	39.8	38	6	25.5	50.5	30.8	23	M32*1.0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

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



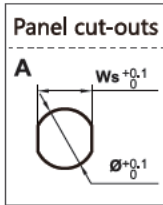
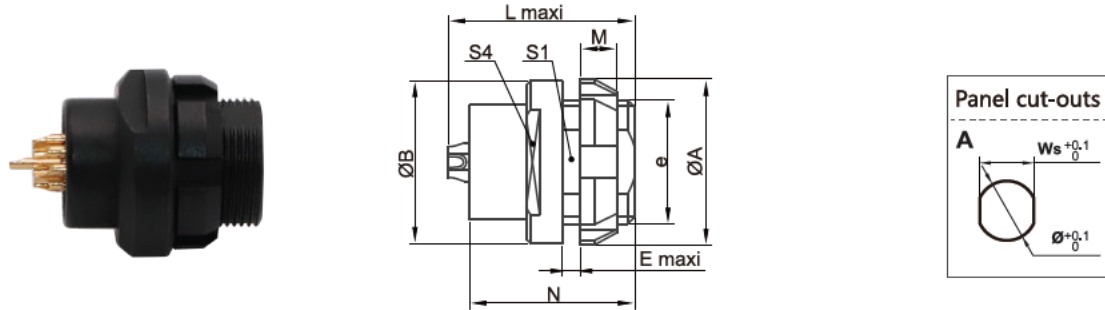
Reference		Dimensions(mm)										Panel cut-outs		
Series	Model	L	A	B	N	E	M	S1	S2	e	Ws	Ø	Type	
0F	Z13	21	12	14	18.5	3	6	8.2	11	M9*0.5	8.3	9.1	A	
1F	Z13	24.7	18	19	21	2.5	6	12.3	15	M14*1.0	12.1	14.1	A	
15F	Z13	24.5	17.9	18.8	19.5	3.5	7	12	15	M14*1.0	12.1	14.1	A	
2F	Z13	25.1	20	22	21.6	4	8	15	17	M16*1.0	14.6	16.1	A	

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



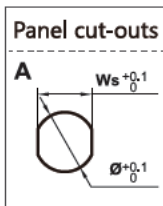
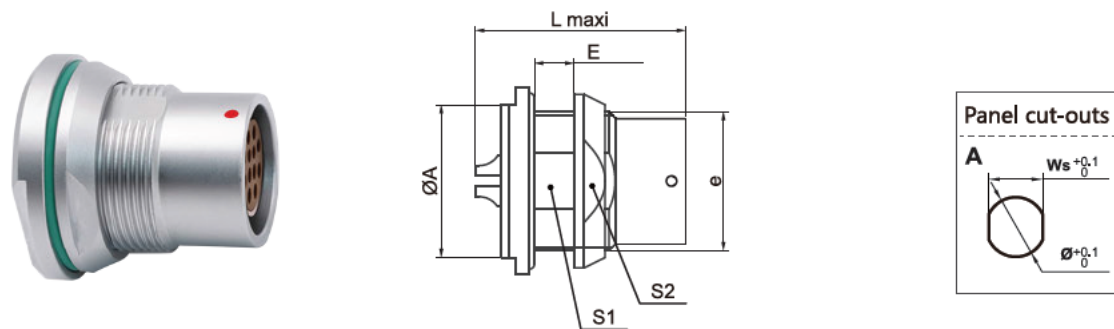
Reference		Dimensions(mm)							Panel cut-outs		
Series	Model	A	B	L	E	S1	S2	e	Ws	Ø	Type
0F	Z16	14	3.5	17.8	6.5	9	12	M10*0.5	9.1	10.1	A
1F	Z16	18.5	4.0	24.7	12	14	17	M14*1.0	12.1	14.1	A
2F	Z16	21.8	3.5	25.5	8.5	14.8	19	M16*1.0	14.6	16.1	A

### 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
	13			0.4	10	2	600	200
	1F	02			1.3	5	15	1500
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



### INSERT CONFIGURATION (Multipole)

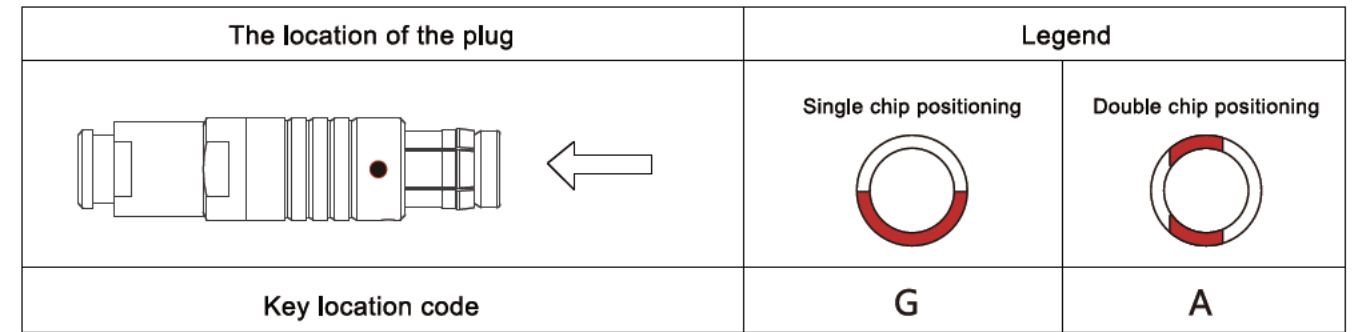
Series	Code	Solder contacts		Contact ø(mm)	Resistance (mΩ)	Rated current (A)	Test voltage (V)	Working voltage (V)	
		Male	Female						
1F	12			0.5	10	2	800	260	
	14			0.5	10	2	800	260	
15F	10			0.7	7.5	4.5	1500	500	
	12			0.7	7.5	4.2	1500	500	
	19			0.7	10	2.5	900	300	
2F	03			1.6	4	17	2400	800	
	04			1.3	5	15	1850	810	
	05			1.3	5	14	1750	580	
	08			1.3	5	12	1500	500	
	09	1			1.3	5	12	2200	730
		8			0.9	6	6	1500	500
	16			0.7	7.5	6	950	315	
3F	02			3.0	6	35	2100	700	
	04			2.0	3	20	1800	320	
	07	1			2.0	5	12	2200	730
		6			1.3	6	6	1500	500
15			0.9	6	5.3	1600	250		
4F	12			2.0	3	16	2200	500	

### INSERT CONFIGURATION (Coaxial hybrid)

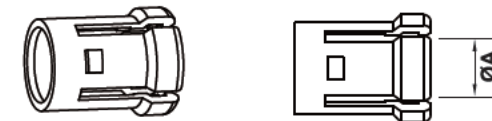
Series	Code	Number of contacts	Solder contacts		Contact ø(mm)	Resistance (mΩ)	Rated current (A)	Test voltage (V)	Working voltage (V)	Impedance (Ω)
			Male	Female						
2F	804	4			0.7	6	7	900	400	-
		1 Coax			1.3	5	15	1850	610	50

CALCULATION METHOD: WORKING VOLTAGE= TEST VOLTAGE/3

### ALIGNMENT KEY



### COLLET (The material of collet is nickel plated brass)



Code	Collet ØA (mm)	Cable DiaØ(mm)		Series				
		min.	max.	0F	1F	15F	2F	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				●	

○ Protection index(mated):IP50&IP68  
 ● Protection index(mated):IP68