

M SERIES

(OUTDOOR KEYED)

MOCO designed waterproof M series connectors for outdoor application. With unique and improved structural design, it's a smaller push pull self-latching IP68 connector. Three different size option: 0M series(M9) ,1M series(M12) and 2M Series(M15). Especially suitable for small space and waterproof needed equipment.



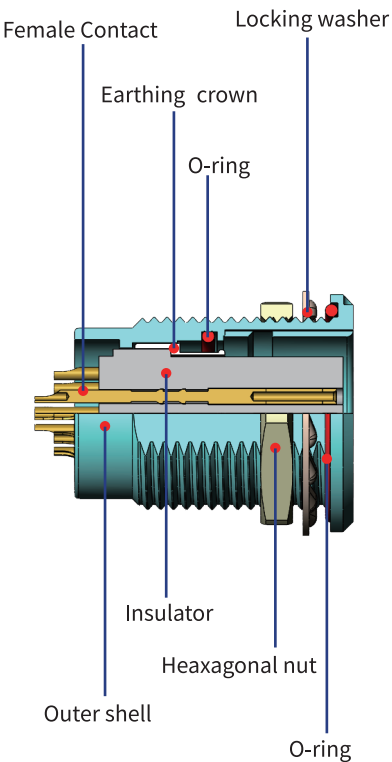
MAIN FEATURES:

1. Security of the push –pull self-latching system
2. Multipole types 2 to 32 contacts
3. IP Rating: IP68
4. High Packing density for space saving
5. Keying system (G key standard) for connector alignment
6. 360° screening for full EMC shielding
7. Rugged housing for extreme working conditions
8. IP Rating: IP68

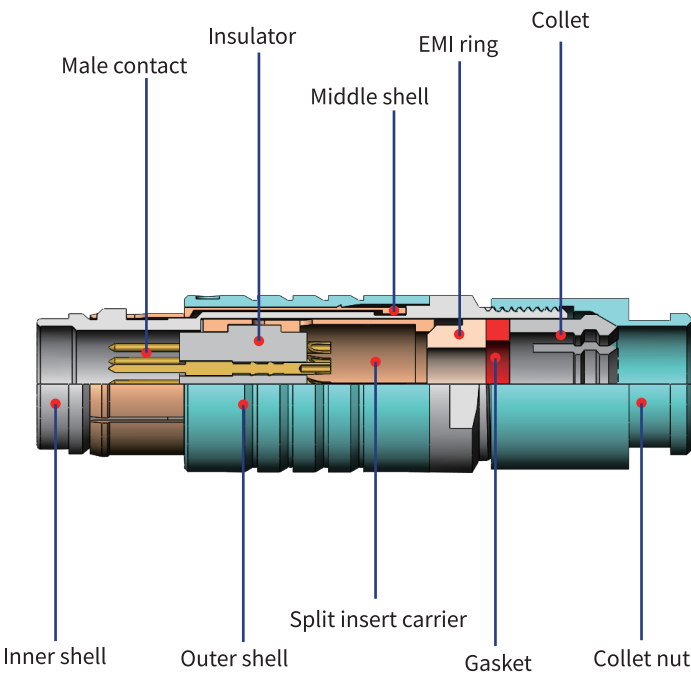
PART SECTION SHOWING INTERNAL COMPONENTS

M series

Fixed socket



Straight plug



Part Numbering System

1.Series:(Page 35)

2.Housing model:(Page 35)

3.Alignment key:(Page 36)

4.Insert configuration:(Page 47)

5.Housing material
C=Chrome plated brass
K=Black Chrome plated brass
N=Nickel plated brass
T=Stainless steel
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 52)

9.Outshell pattern
4=Circle Pattern

10.Collet Nut Type
2=collet nut for bend relief
3=Flat(without bend relief)

11.Earthing Tag
0=Without Earthing Tag 1=With Earthing Tag

Plug **1M** **T1** **G** **04** **C** **L** **A** **50** **4** **2** **0**
Fixed socket **1M** **Z7** **G** **04** **C** **L** **L** **00** **0** **0** **0**

PART NUMBER EXAMPLE:

Straight plug with cable collet:

1MT1G04CLA50420=1M series straight plug with key(G) and cable collet,multipole type with 4 contacts,chrome plated brass outer shell, PPS insulator,solder male contacts,collet for 5.0mm diameter cable,circle outshell pattern, collet nut for bend relief,without earthing tag.

Fixed socket:

1MZ7G04CLL00000=1M series fixed socket, nut fixing,key(G),multipole type with 4 contacts,chrome plated brass outer shell,PPS insulator, solder female contact, without earthing tag

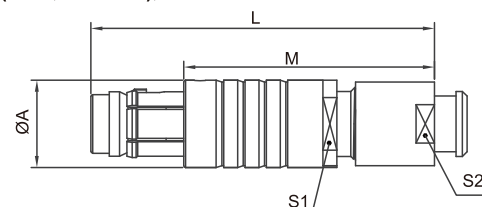
TECHNICAL CHARACTERISTICS

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

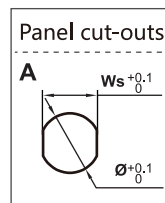
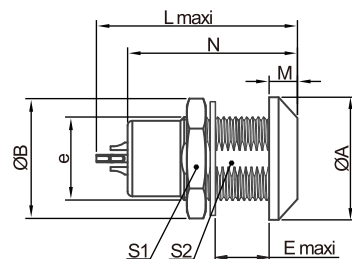
Housing Models

T1 PLUG STRAIGHT PLUG, WATERTIGHT, KEY (G) OR KEYS (A...F, L AND R), CABLE COLLET AND NUT FOR FITTING A BEND RELIEF



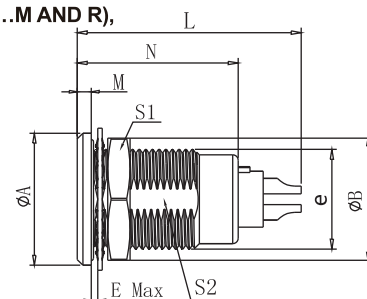
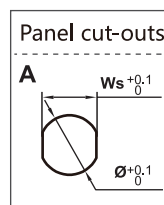
Reference		Dimensions(mm)				
Series	Model	L	M	A	S1	S2
0M	T1	35.5	25.5	9.4	7.4	8.0
1M	T1	42.3	30.1	11.8	11.0	9.0
2M	T1	50.2	37.7	15	13	13

Z7 SOCKET FIXED SOCKET, FRONT PANEL MOUNT, NUT FIXING, KEY (G) OR KEYS (A...M AND R), WATERTIGHT OR VACUUM-TIGHT

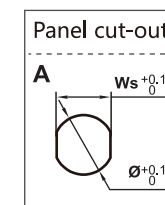
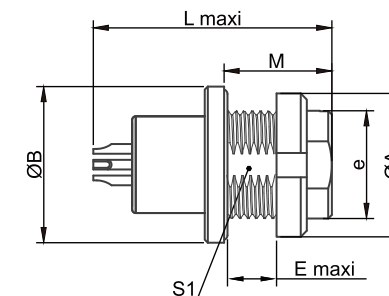
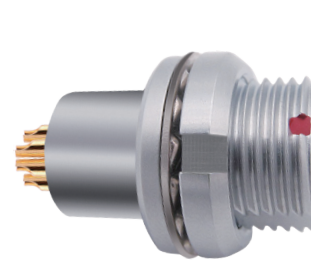


Reference		Dimensions(mm)									Panel cut-outs		
Series	Model	L	M	A	B	N	S1	S2	E	e	Ws	Ø	Type
0M	Z7	21	3	13	12.7	18	11	8.2	5.5	M9*0.5	8.3	9.1	A
1M	Z7	23.9	2	15	16	20.3	14	10.5	7.5	M12*1.0	10.6	12.1	A
2M	Z7	23.2	1.8	18.5	19.2	21.7	17	13.5	10	M15*1.0	13.6	15.1	A

Z1 SOCKET FIXED SOCKET, FRONT PANEL MOUNT, NUT FIXING, KEY (G) OR KEYS (A...M AND R), WATERTIGHT OR VACUUM-TIGHT

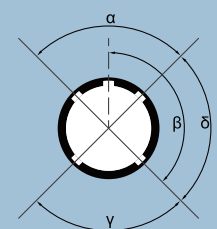


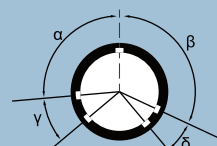
Z13 SOCKET FIXED SOCKET, BACK PANEL MOUNT, KEY (G) OR KEYS (A...M AND R), WATERTIGHT OR VACUUM-TIGHT



Reference		Dimensions(mm)							Panel cut-outs		
Series	Model	L	M	A	B	S1	E	e	Ws	Ø	Typ
0M	Z13	21	8.9	11.9	12.9	8.2	4.5	M9*0.5	8.3	9.1	A
1M	Z13	25	10	16.0	15.5	10.5	5.5	M12*1.0	10.6	12.1	A

M series Alignment Key and Polarized Keying System

Front view of a socket	Ref.	Nb of keys	Angles	Series			Ref.	Nb of keys	Angles	Series			Contact type		Note
				00	0M	1M				2M	3M	4M	Plug	Socket	
	G	1		0°	0°	0°	G	1		0°	0°	0°	male	female	●
	A	2		30°	30°	30°	A	2		30°	30°	30°	male	female	●
	B	2	α	60°	60°	60°	B	2	α	45°	45°	45°	male	female	●
	C	2		-	90°	90°	C	2		60°	60°	60°	male	female	○
	D	2		-	135°	135°	D	2	γ	95°	95°	95°	male	female	○
	E	2	β	-	145°	145°	E	2	β	120°	120°	120°	male	female	○
	F	2		-	155°	155°	F	2		145°	145°	145°	male	female	●
	J	2		45°	45°	45°	J	2	α	37.5°	37.5°	37.5°	female	male	○
	K	2	γ	-	70°	70°	K	2		32.5°	32.5°	32.5°	female	male	○
	L	2		-	80°	80°	L	2	γ	70°	70°	70°	female	male	○
	M	2	δ	-	110°	-	M	2	-	-	-	-	female	male	●
	Y	3		-	-	-	Y	3	β	112.5°	126°	112.5°	male	female	●
				-	-	-			γ	100°	102°	147.5°			

Front view of a socket	Ref.	Nb of keys	Angles	Series			Ref.	Nb of keys	Angles	Series			Contact type		Note
				00	0M	1M				2M	3M	4M	Plug	Socket	
	R	5	α	-	-	-	R	5	α	-	-	-	male	female	●
			β	-	-	-			β	-	-	-			
				-	-	-				-	-	-			
				-	-	-				-	-	-			