

MB-S & E Series Coaxial Connectors

1. Overview

OOS Plug



MB-TFA



MB-TFA(Z)



MB-TLA



MB-TLA



MB-TFS

OOS Receptacle



MB-ZRA



MB-DCA



MB-DCA(Z)



MB-ZRN



MB-ZPL



MB-ZPS



MB-ZPA

OS Plug



MB-TFA



MB-TFA(Z)

OS Receptacle



MB-ZRA

1S Plug



MB-TFA



MB-TFA(Z)



MB-TLA

1S Receptacle



MB-ZRA

2S Plug



MB-TFA



MB-TFA(Z)

2S Receptacle



MB-ZRA

1E Plug (IP68)



MB-TGG



MB-TGG(Z)

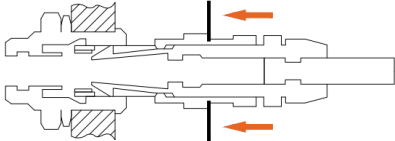
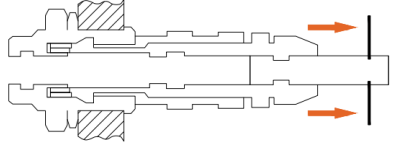
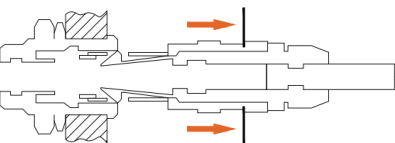
1E Receptacle (IP68)



MB-ZGG

2. Push-Pull Self-Latching Connection System



Drawing	Specification
	<p>Engaging</p> <p>The self-latching system allows the connector to be mated by simply pushing the plug into the receptacle.</p>
	<p>Latched</p> <p>Once firmly latched, the connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.</p>
	<p>Disengaging</p> <p>When required, the connector is disengaged by a single axial pull on the outer release sleeve. This first disengage the latches and then withdraws the plug from the socket.</p>

3. Main Features

- Push-Pull self-latching system
- Coaxial (50Ω and 75Ω), unipole configuration
- M7, M9, M12, M15 size are optional
- Fast connection, reliable performances
- 360° screening for full EMC shielding

4. Technical Characteristics

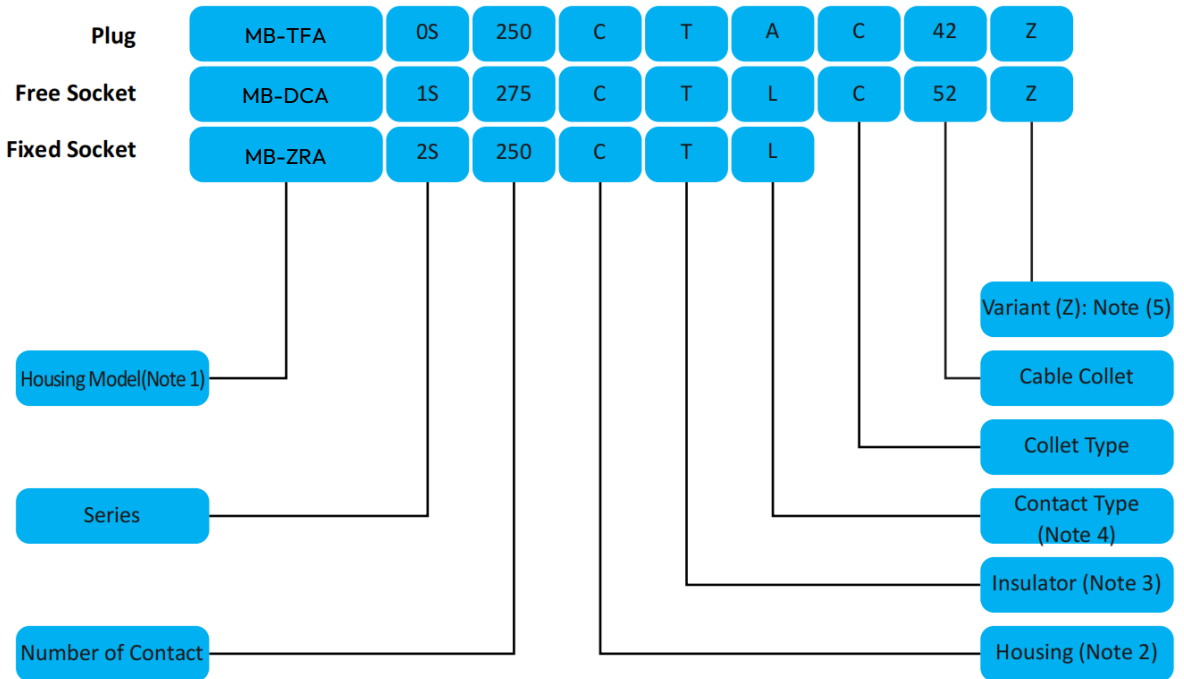
4.1 Mechanical and Climatical

Characteristics	Value	Standard
Endurance	>5000 cycles	IEC 60512-5 test 9a
Humidity	Up to 95% at 60°C	
Temperature Range	-40°C to +150°C	
Resistance to Vibration	10-2000Hz, 15g	IEC 60512-4 test 6d
Shock Resistance	100g, 6ms	IEC 60512-4 test 6c
Salt Spray Corrosion Test	>96h	IEC 60512-6 test 11f
Protection Index (mated)	S Series: IP50 E Series: IP68	IEC 60529

4.2 Electrical

Characteristics		Value	Standard
Shielding Efficiency	at 10 MHZ	>75 dB	IEC 60619-1-3
	at 1 GHZ	>40 dB	IEC 60619-1-3

5. Part Numbering System



***Note 1:**

MB-TFA.0S.250.CTAC42 = 0S unipole pins straight plug, 50 Ohm, pearl chrome plated brass housing, PTFE insulator, 4.2mm cable collet

MB-DCA.1S.275.CTLC62Z = 1S unipole pins straight plug, 75 Ohm, pearl chrome plated brass housing, PTFE insulator, 6.2mm cable collet, nut for fitting bend relief

*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

***Note 2:**

- C=Brass plated chrome
- K=Brass plated black chrome
- N=Brass plated nickel
- T=Stainless Steel
- L=Aluminum alloy anodized

***Note 3:**

- L=PPS
- T=PTFE
- P=PEEK

***Note 4:**

A=Male soldering contacts
 L=Female soldering contacts

***Note 5:**

To request a model that includes a nut for fitting the bend relief, designate the variant position with the letter "Z" and include the bend relief part numbers MB-GMA.

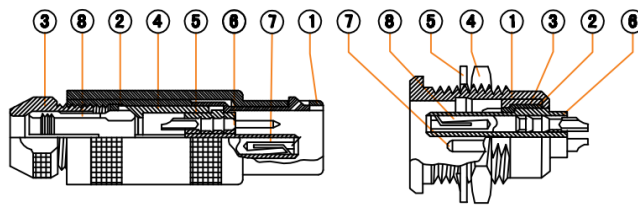
Bend relief color:

N=Black G=Gray A=Blue R=Red J=Yellow V=Green

6. Part Section Showing Internal Components

Straight Plug

- ① Outer Shell
- ② Latch Sleeve
- ③ Collet Nut
- ④ Center-Piece
- ⑤ Insulator
- ⑥ Male Contact
- ⑦ Collet


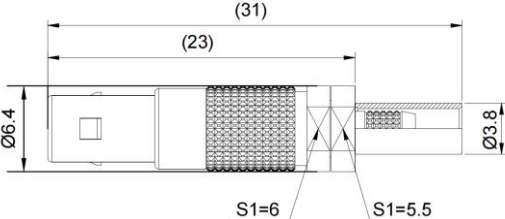

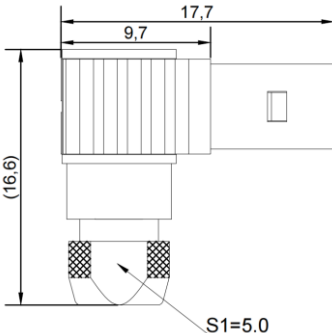

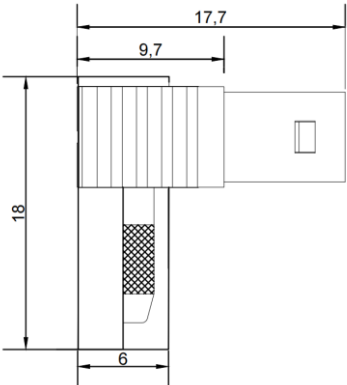

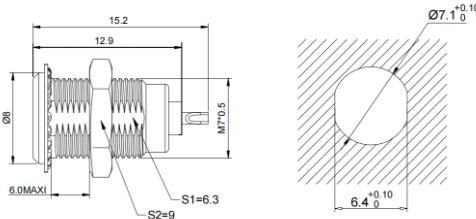



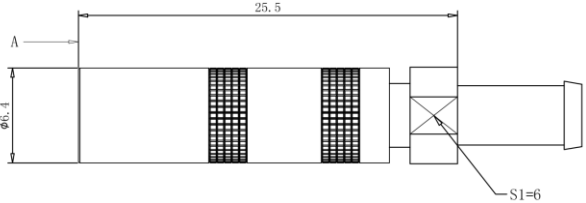

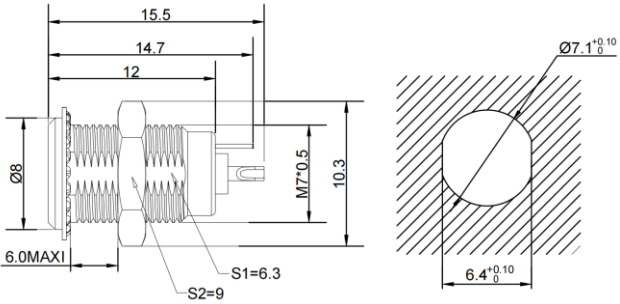

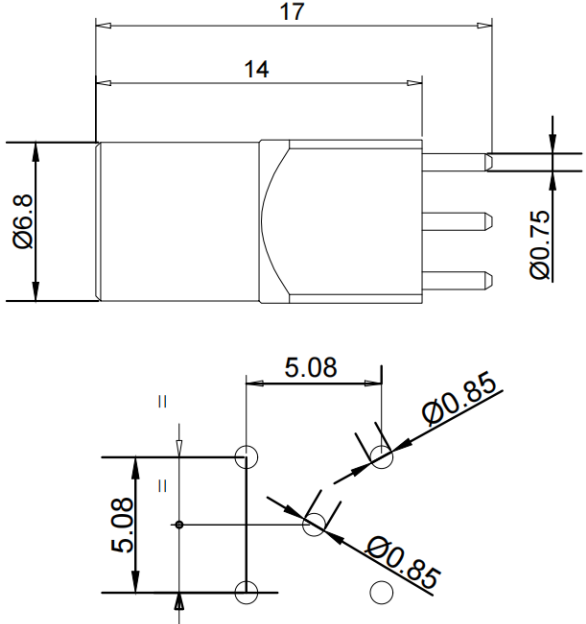
Fixed Receptacle


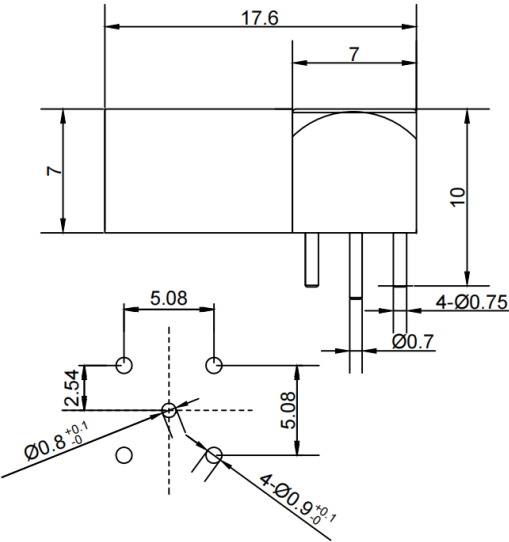

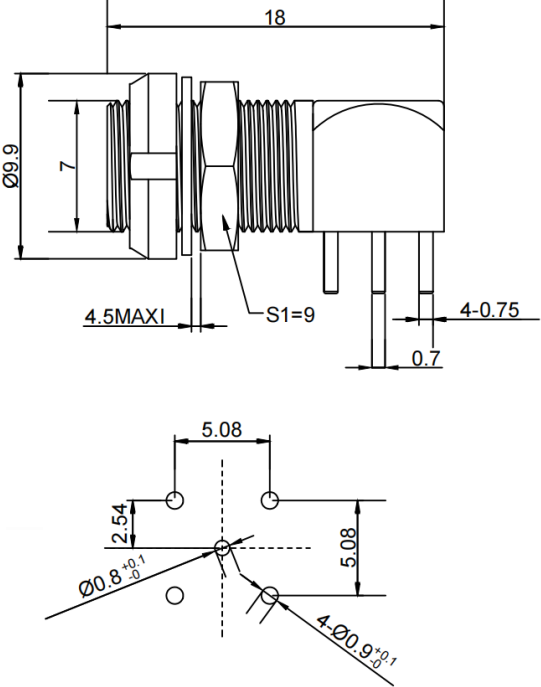
- ① Outer Shell
- ② Earthing Crown
- ③ Retaining Ring
- ④ Hexagonal Nut
- ⑤ Locking Washer
- ⑥ Insulator
- ⑦ Female Contact


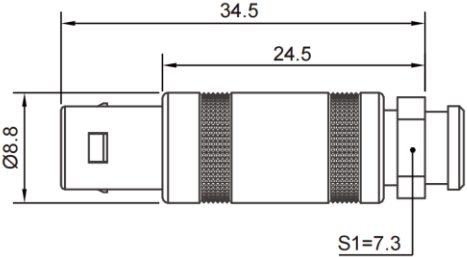

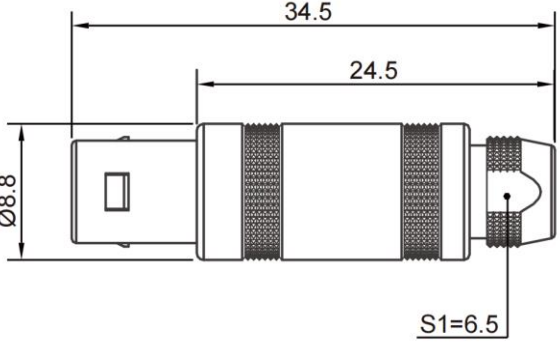

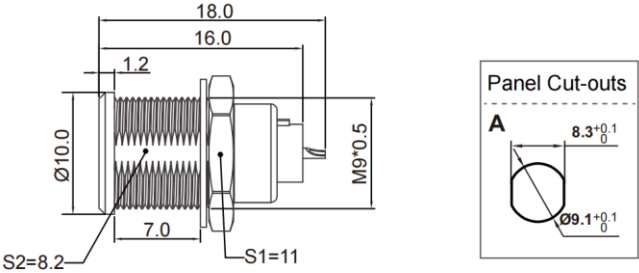
7. Product Size


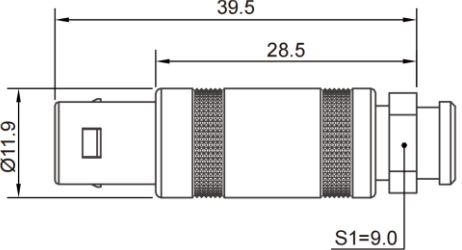

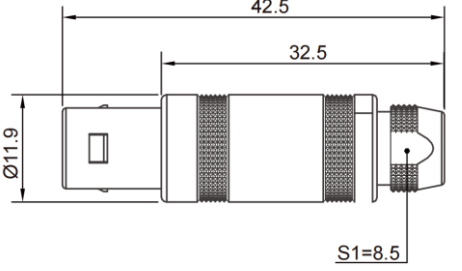

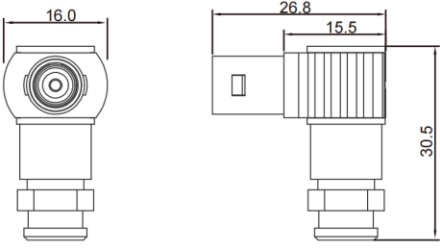

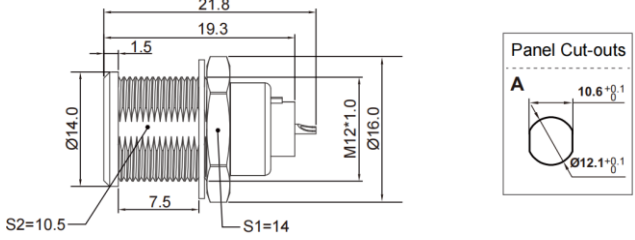

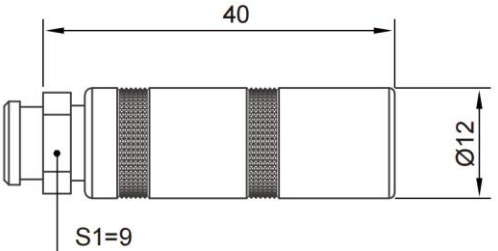
Part Number	Image	Size
MB-TFA.00.250.C TACXXZ		
MB-TFA.00.250.C TACXX		


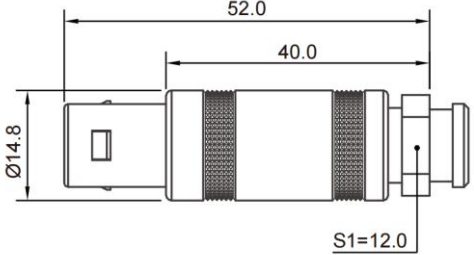

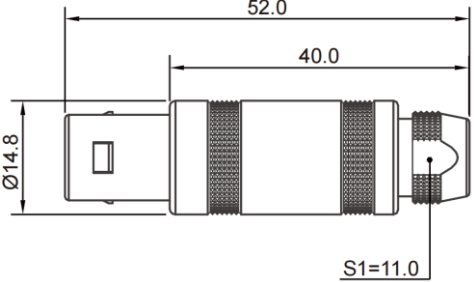

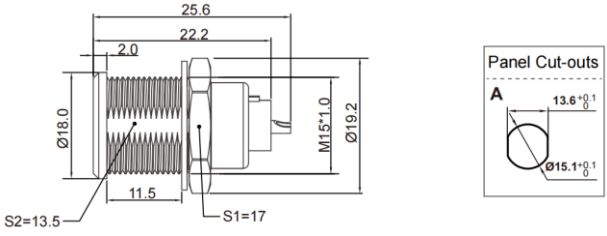

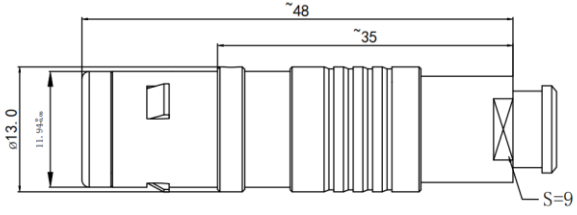

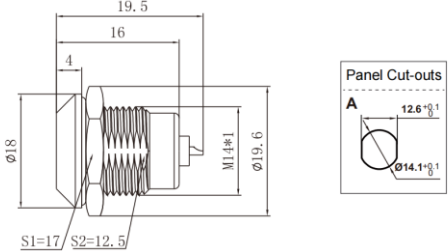
Part Number	Image	Size
MB-TFS.00.250.CT AEXX		
MB-TLA.00.250.C TACXX		
MB-TLA.00.250.C TAEXX		
MB-ZRA.00.250.C TL		

Part Number	Image	Size
MB-DCA.00.250. CTLCXXZ		
MB-ZRN.00.250. CTL		
MB-ZPA.00.250. NTN		

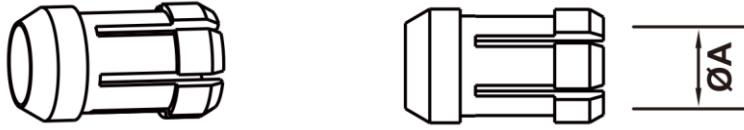
Part Number	Image	Size
MB- ZPL.00.250. NTN		
MB- ZPS.00.250. NTN		

Part Number	Image	Size
MB-TFA.OS.250.CT ACXXZ		
MB-TFA.OS.250.CT ACXX		
MB-ZRA.OS.250.CT L		

Part Number	Image	Size
MB-TFA.1S.250.CT ACXXZ MB-TFA.1S.275.CT ACXXZ		
MB-TFA.1S.250.CT ACXX MB-TFA.1S.275.CT ACXX		
MB-TLA.1S.250.CT ACXX MB-TLA.1S.275.CT ACXX		
MB-ZRA.1S.250.CT L MB-ZRA.1S.275.CT L		
MB-DCA.1S.250.CT LCXX		

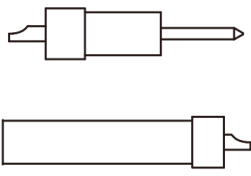
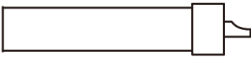










Part Number	Image	Size
MB-TFA.2S.250.CT ACXXZ		
MB-TFA.2S.250.CT ACXX		
MB-ZRA.2S.250.CT L		
MB-TGG.1E.250.CL ADXXZ		
MB-ZGG.1E.250.CL L		

8. Cable Collect Size



Code	Collet Ø (mm)	Cable dia Range		Series				
		Max	Min	OOS	OS	1S	2S	1E
27	2.7	2.2	2.7	•		•		
29	2.9	2.4	2.9	•				
32	3.2	2.7	3.2	•	•			•
35	3.5	3.1	3.5			•		
40	4.0	3.6	4.0		•	•	•	•
45	4.5	4.1	4.5		•			•
50	5.0	4.6	5.0		•	•		•
60	6.0	5.1	6.0			•		•
62	6.2	5.8	6.2			•		•
65	6.5	6.1	6.5			•		
70	7.0	6.6	7.0				•	•
80	8.0	7.1	8.0				•	

8. Coaxial Connector Uni-pole Layout

 		Code	Ohm(Ω)	$\varnothing A$ (MM)	Solder contact	Voltage standing-wave ratio SWR(F=GHz)	Test voltage (KV/rms)	Work voltage (KV/rms)	Current rate (A)	IP Rating
00	 	250	50	0.7	1	1.09 +0.11*f/GHz	2.1	0.7	4	IP50
0S	 	250	50	0.9	1	1.02 +0.25*f/GHz	3.0	1.0	6	IP50
1S	 	250	50	1.6	1	1.01 +0.23*f/GHz	3.0	1.0	12	IP50
		275	75	1.3	1	1.02 +0.08*f/GHz	2.4	0.8	10	IP50
2S	 	250	50	2.0	1	1.01 +0.95*f/GHz	3.0	1.0	15	IP50
		275	75	1.6	1	1.02 +0.03*f/GHz	1.5	1.5	12	IP50
1E	 	250	50	0.9	1	1.09 +0.23*f/GHz	1.0	0.3	6	IP68