

New

# MULTI CUPLA MAM-A-ZEL Type

## A new low spillage ZEL CUPLA series added to the MULTI CUPLA product range !

### Low spillage CUPLA MAM-A-ZEL Type

Plug

Socket

Thread size  
**1/4"**



MAM-A-ZEL-2P

MAM-A-ZEL-2S



Plug



Socket

Mounted onto plates of MAM-A Type

Thread size  
**3/8"**

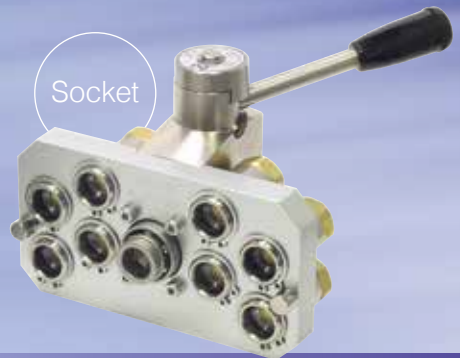


MAM-A-ZEL-3P

MAM-A-ZEL-3S



Plug



Socket

Mounted onto plates of MAM-B Type

Thread size  
**1/2"**



MAM-A-ZEL-4P

MAM-A-ZEL-4S

Choose the individual CUPLA unit according to your operating conditions.

Coupling body	<b>MAM-A-ZEL Type</b>
	Low spill type
	<b>MAM-A-SP Type</b>
	Current product

Coupling size	<b>1/4"</b>
	<b>3/8"</b>
	<b>1/2"</b>

Number of ports	<b>4</b>	<b>6</b>
	Ports	Ports
	<b>8</b>	<b>12</b>
	Ports	Ports

MAM-A-ZEL coupling can be mounted onto MAM-A or MAM-B MULTI CUPLA plates. (1/8" plates excluded)



The greater number of ports, the chance of spillage increases...



## Eliminate the problem !!



**Typical spillage**  
(6 ports of size 1/4")

**4.8 mL → 0.36 mL**  
(May vary. Depends on the application.)

**Low spillage**

### Specifications (Individual coupling)

Model	Plug	MAM-A-ZEL-2P	MAM-A-ZEL-3P	MAM-A-ZEL-4P
	Socket	MAM-A-ZEL-2S	MAM-A-ZEL-3S	MAM-A-ZEL-4S
Size (Thread)		1/4"	3/8"	1/2"
Body material	Brass (Nickel plated)			
Working pressure *1	1.0 MPa, 10 kgf/cm <sup>2</sup> , 10 bar, 145 PSI			
Seal material	Seal material		Mark	Working temperature range
	Working temperature range *2	Fluoro rubber	FKM	-20°C to +180°C
			Remarks	Standard material

\*1: The normal allowable fluid pressure under continuous use. Exceeding the working pressure may cause damage and leakage.  
 \*2: The minimum and maximum working temperature range of the seal material used in the product. Continuous use at the minimum or maximum temperature is not recommended. Please contact us for consultation.  
 - The specifications when used with individual couplings mounted onto the plate, conform to the specifications of the individual coupling.

### Specifications (Plate only)

Plate type	MAM-B Type		MAM-A Type							
	Plug	Socket	MAM-B-2P6-CL	MAM-B-2P8-CL	MAM-A-2P6-CL	MAM-A-2P12-CL	MAM-A-3P6-CL	MAM-A-3P12-CL	MAM-A-4P4-CL	MAM-A-4P8-CL
Model			MAM-B-2S6-CL	MAM-B-2S8-CL	MAM-A-2S6-CL	MAM-A-2S12-CL	MAM-A-3S6-CL	MAM-A-3S12-CL	MAM-A-4S4-CL	MAM-A-4S8-CL
Number of ports	6	8	6	8	6	12	6	12	4	8
Body material	Aluminum alloy									
Ambient temperature range	0°C to +60°C									

### Maximum Tightening Torque

Size (Thread)	Nm {kgf·cm}	
1/4"	9 {92}	30 {306}
3/8"	12 {122}	
1/2"		

### Interchangeability

No connection is possible between plates with different number of ports or different size.

### Minimum Cross-Sectional Area (per port)

Model	Minimum cross-sectional area (mm <sup>2</sup> )	
MAM-A-ZEL-2S×MAM-A-ZEL-2P	31	86.5
MAM-A-ZEL-3S×MAM-A-ZEL-3P	60.5	
MAM-A-ZEL-4S×MAM-A-ZEL-4P		

### Suitability for Vacuum

1.3×10 <sup>-1</sup> Pa {1×10 <sup>-3</sup> mmHg}		
Socket only	Plug only	When connected
—	—	Operational

### Admixture of Air on Connection (per port)

Model	MAM-A-ZEL-2S×MAM-A-ZEL-2P	MAM-A-ZEL-3S×MAM-A-ZEL-3P	MAM-A-ZEL-4S×MAM-A-ZEL-4P
Volume of air inclusion	0.16	0.21	0.39

May vary. Depends on the application.

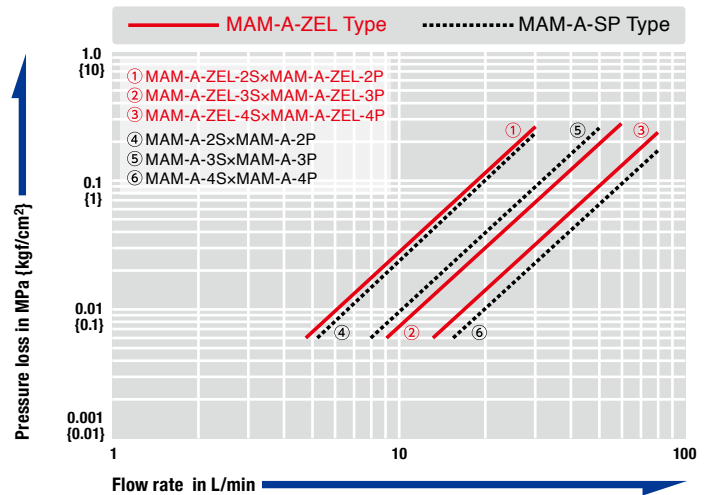
### Volume of Spillage per Disconnection (per port)

Model	MAM-A-ZEL-2S×MAM-A-ZEL-2P	MAM-A-ZEL-3S×MAM-A-ZEL-3P	MAM-A-ZEL-4S×MAM-A-ZEL-4P
Volume of spillage	0.06	0.12	0.15

May vary. Depends on the application.

### Flow Rate - Pressure Loss Characteristics (per port)

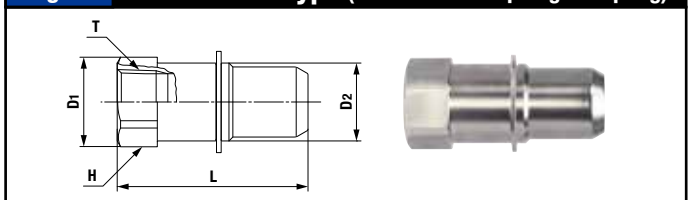
[Test Conditions] - Fluid: Water - Temperature: 23°C



### Models and Dimensions

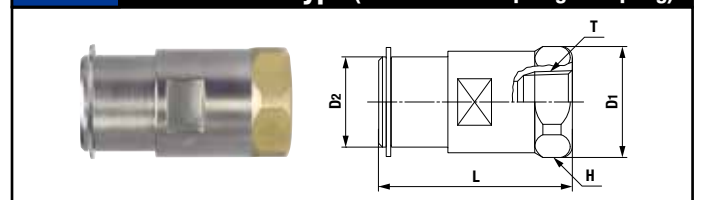
WAF: WAF stands for width across flats.

#### Plug MAM-A-ZEL Type (Individual low spillage coupling)



Model	Application (Thread)	Mass (g)	Dimensions (mm)				
			L	øD1	øD2	H (WAF)	T
MAM-A-ZEL-2P	R 1/4	42	47	19	16	Hex.17	Rc 1/4
MAM-A-ZEL-3P	R 3/8	64	49	23	20	Hex.21	Rc 3/8
MAM-A-ZEL-4P	R 1/2	123	55	32	25	Hex.29	Rc 1/2

#### Socket MAM-A-ZEL Type (Individual low spillage coupling)



Model	Application (Thread)	Mass (g)	Dimensions (mm)				
			L	øD1	øD2	H (WAF)	T
MAM-A-ZEL-2S	R 1/4	78	(46)	23	20	Hex.21	Rc 1/4
MAM-A-ZEL-3S	R 3/8	129	(51.5)	24	29.5	Hex.27	Rc 3/8
MAM-A-ZEL-4S	R 1/2	210	(59)	35	30	Hex.32	Rc 1/2

# Customize in accordance with your operating conditions.



The MULTI CUPLA shown above

	Plug	Socket
Coupling	MAM-A-ZEL-4P	MAM-A-ZEL-4S
Plate	MAM-A-4P8-CL	MAM-A-4S8-CL

## 1 Decide the [Type] and [Size] of CUPLA to be used

### Coupling

Low spill type	Plug	Model	Interchangeability	Socket	Model	
Low spill type	MAM-A-ZEL Type	MAM-A-ZEL-2P	Interchangeable Same size only	Low spill type	MAM-A-ZEL Type	
		MAM-A-ZEL-3P				MAM-A-ZEL-2S
		MAM-A-ZEL-4P				MAM-A-ZEL-3S
Current product	MAM-A-SP Type	MAM-A-2P	No interchangeability	Current product	MAM-A-SP Type	
		MAM-A-3P				MAM-A-2S
		MAM-A-4P				MAM-A-3S
		Interchangeable Same size only			MAM-A-4S	

**MAM-A-ZEL and MAM-A-SP Type can be mounted on the same plates.**

Note: MAM-A-ZEL Type is not interchangeable with the MAM-A-SP Type.

One way valve for MAM-A-ZEL (Plug without valve) and valve-less MAM-A-SP (Plug and Socket without valve) are available on request as made-to-order versions.

## 2 Specify the required number of [Port]s

## 3 Select the [Plate]

Note: If the coupling size is 1/4" and the number of ports is 6, either plate for MAM-A or MAM-B can be used. (Choose either one by the outer dimensions)

### Plate

Coupling body	Size (Thread)	Number of ports	Plate model of Plug side	Plate model of Socket side	Outer dimensions
MAM-A-ZEL Type	1/4"	6	MAM-A-2P6-CL	MAM-A-2S6-CL	See page 4
		8	MAM-B-2P8-CL	MAM-B-2S8-CL	See page 3
		12	MAM-A-2P12-CL	MAM-A-2S12-CL	See page 4
MAM-A-SP Type	3/8"	6	MAM-A-3P6-CL	MAM-A-3S6-CL	See page 5
		12	MAM-A-3P12-CL	MAM-A-3S12-CL	See page 5
		4	MAM-A-4P4-CL	MAM-A-4S4-CL	See page 6
	1/2"	8	MAM-A-4P8-CL	MAM-A-4S8-CL	See page 6

In order to balance the force of system pressure, place each CUPLA symmetrically from the lock unit (center).

### Safety Guide

#### WARNING

- Do not connect / disconnect under pressure or residual pressure of 0.6 MPa. Damage may result.
- Do not exceed the working pressure. Leakage or damage may result.
- Do not drop the product. It will cause deformation of the plate.

Read without fail and observe the "Instruction sheet" that comes with the product and the following pages in the Quick Connect Couplings General Catalog; [Precautions Related to the Use of All CUPLA] and "Multi Coupla Series" in the [Safety Guide] page.



**Models and Dimensions**

**Model MAM-B-2P6-CL×MAM-B-2S6-CL (6 Port Type / Plate size : Small)**

-Application: R 1/4 -Mass: Plug (500 g), Socket (788 g)

Dimensions (mm)

Plate type

**MAM-B Type**

**6**  
Ports

Applicable  
Coupling

Plug	Socket
MAM-A-ZEL-2P	MAM-A-ZEL-2S
MAM-A-2P	MAM-A-2S

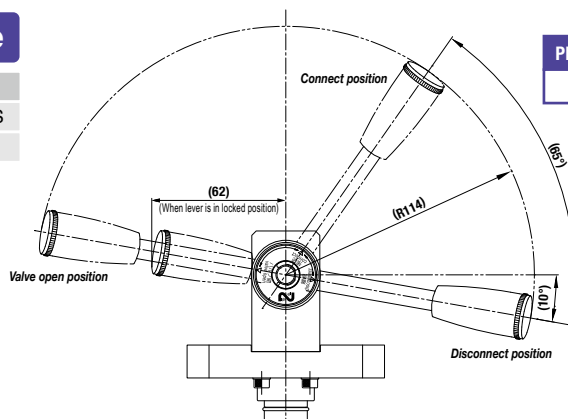
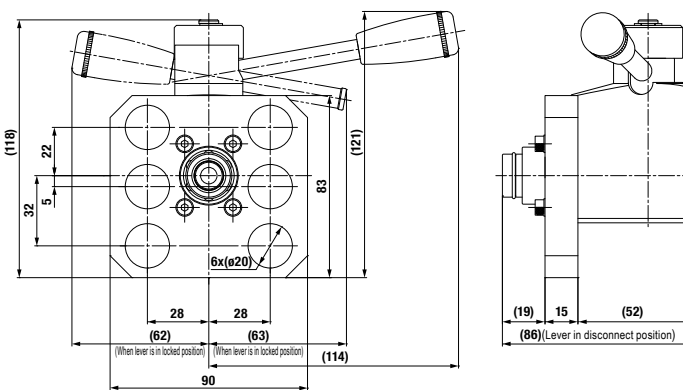
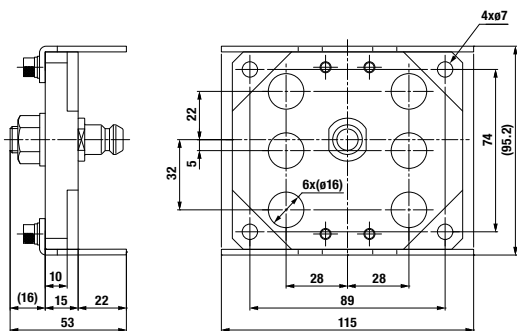


Plate model of Socket side  
**MAM-B-2S6-CL**

Plate model of Plug side  
**MAM-B-2P6-CL**



**Model MAM-B-2P8-CL×MAM-B-2S8-CL (8 Port Type / Plate size : Large)**

-Application: R 1/4 -Mass: Plug (600 g), Socket (894 g)

Dimensions (mm)

Plate type

**MAM-B Type**

**8**  
Ports

Applicable  
Coupling

Plug	Socket
MAM-A-ZEL-2P	MAM-A-ZEL-2S
MAM-A-2P	MAM-A-2S

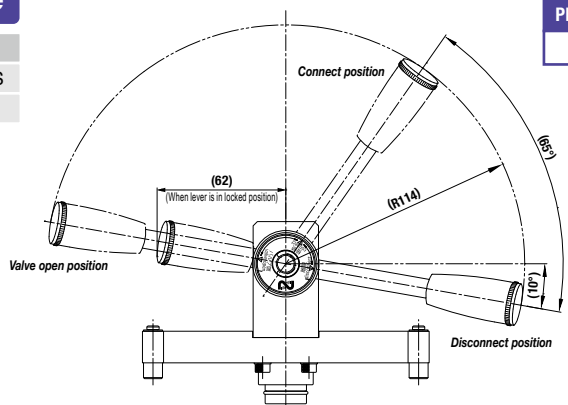
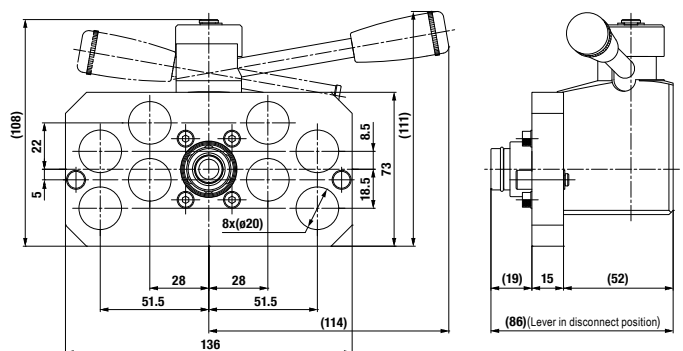
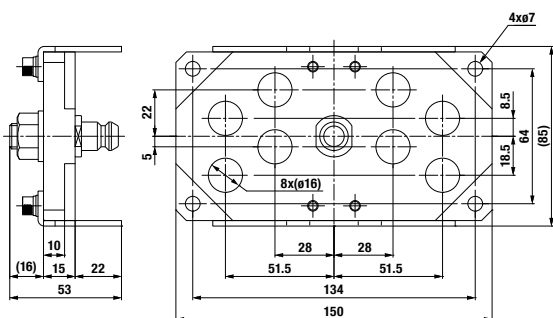


Plate model of Socket side  
**MAM-B-2S8-CL**

Plate model of Plug side  
**MAM-B-2P8-CL**





Models and Dimensions

**Model MAM-A-2P6-CL×MAM-A-2S6-CL (6 Port Type / Plate size : Small)**

-Application: R 1/4 -Mass: Plug (860 g), Socket (1658 g)

Dimensions (mm)

Plate type

**MAM-A Type**

**6**  
Ports

Applicable  
Coupling

Plug	Socket
MAM-A-ZEL-2P	MAM-A-ZEL-2S
MAM-A-2P	MAM-A-2S

Plate model of Socket side

**MAM-A-2S6-CL**

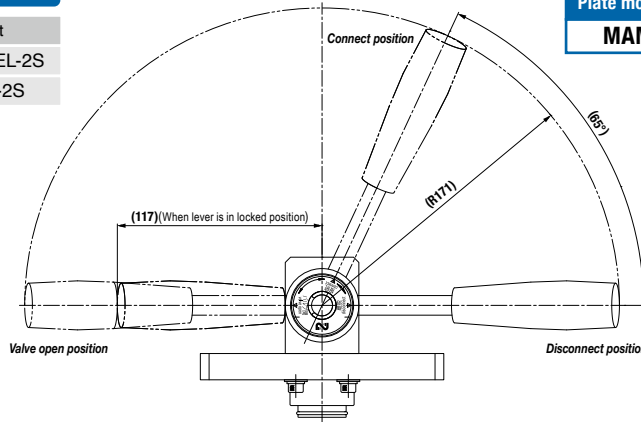
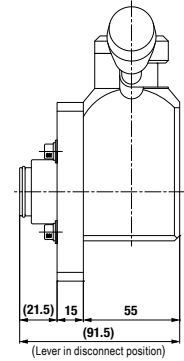
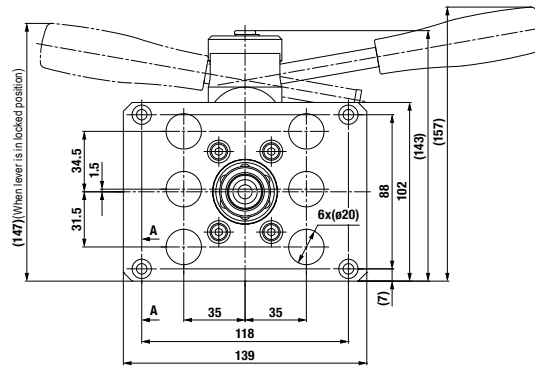
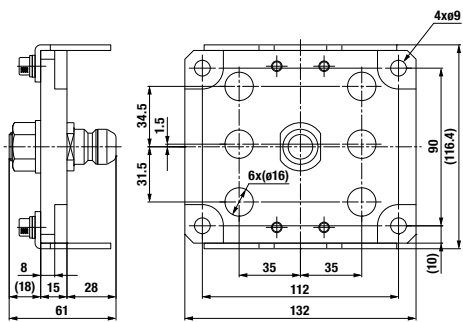


Plate model of Plug side

**MAM-A-2P6-CL**



**Model MAM-A-2P12-CL×MAM-A-2S12-CL (12 Port Type / Plate size : Large)**

-Application: R 1/4 -Mass: Plug (1170 g), Socket (1816 g)

Dimensions (mm)

Plate type

**MAM-A Type**

**12**  
Ports

Applicable  
Coupling

Plug	Socket
MAM-A-ZEL-2P	MAM-A-ZEL-2S
MAM-A-2P	MAM-A-2S

Plate model of Socket side

**MAM-A-2S12-CL**

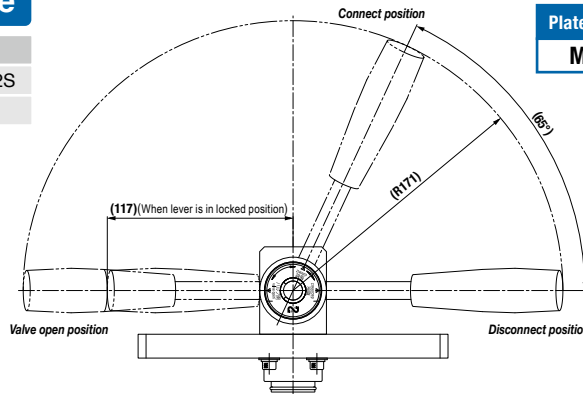
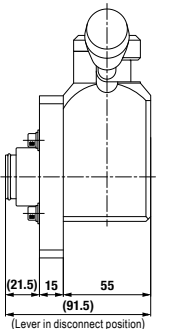
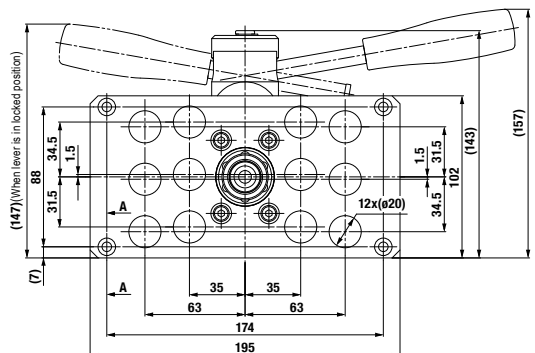
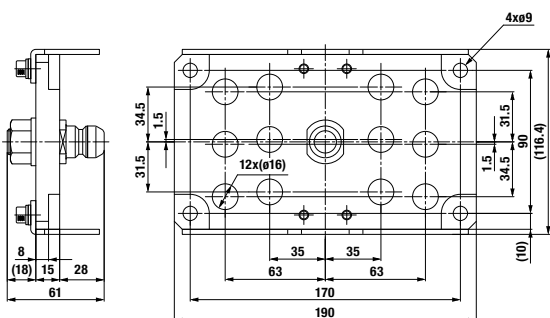


Plate model of Plug side

**MAM-A-2P12-CL**



Models and Dimensions

**Model MAM-A-3P6-CL×MAM-A-3S6-CL (6 Port Type / Plate size : Small)**

-Application: R 3/8 -Mass: Plug (878 g), Socket (1668 g)

Dimensions (mm)

Plate type

**MAM-A Type**

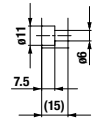
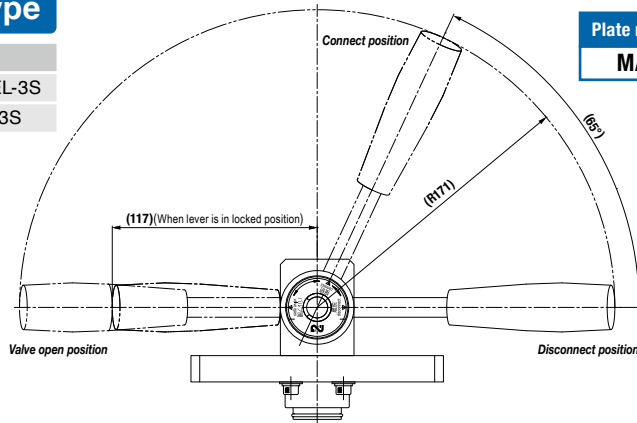
Plate model of Socket side

**MAM-A-3S6-CL**

**6**  
Ports

Applicable Coupling

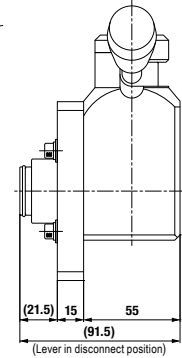
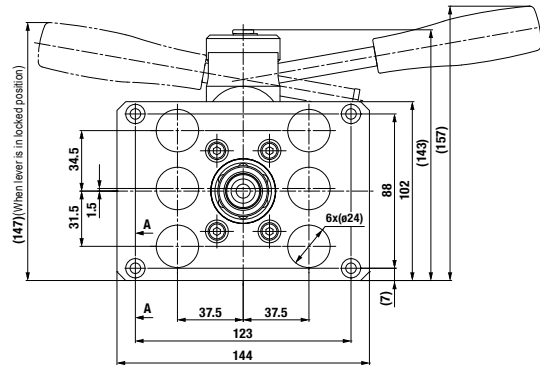
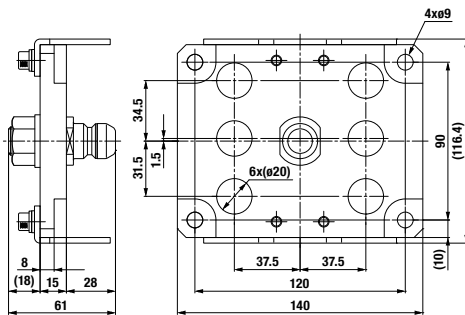
Plug	Socket
MAM-A-ZEL-3P	MAM-A-ZEL-3S
MAM-A-3P	MAM-A-3S



Cross section A-A  
(4 corners)

Plate model of Plug side

**MAM-A-3P6-CL**



**Model MAM-A-3P12-CL×MAM-A-3S12-CL (12 Port Type / Plate size : Large)**

-Application: R 3/8 -Mass: Plug (1206 g), Socket (1836 g)

Dimensions (mm)

Plate type

**MAM-A Type**

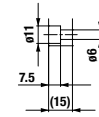
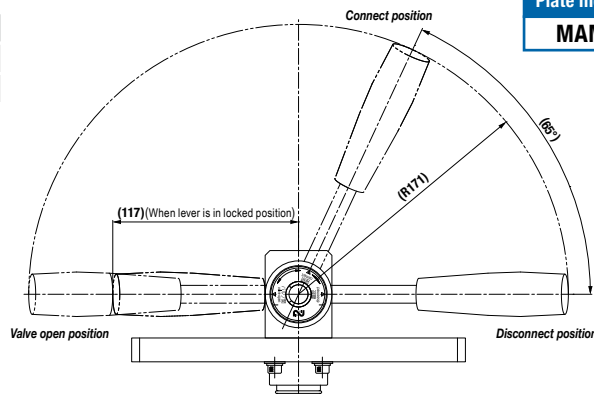
Plate model of Socket side

**MAM-A-3S12-CL**

**12**  
Ports

Applicable Coupling

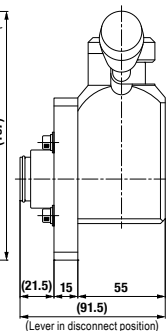
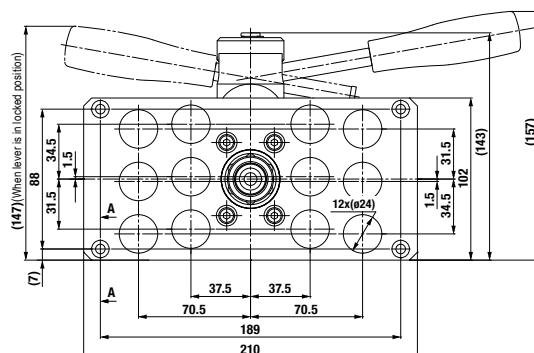
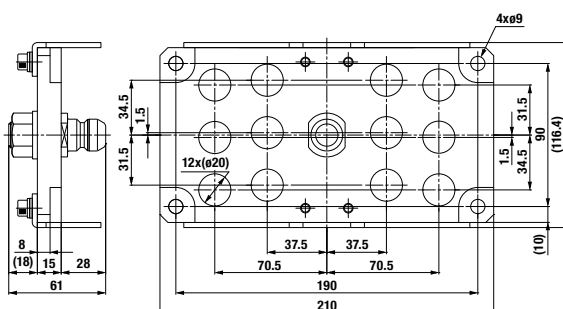
Plug	Socket
MAM-A-ZEL-3P	MAM-A-ZEL-3S
MAM-A-3P	MAM-A-3S



Cross section A-A  
(4 corners)

Plate model of Plug side

**MAM-A-3P12-CL**



Models and Dimensions

Model **MAM-A-4P4-CL**×**MAM-A-4S4-CL** (4 Port Type / Plate size : Small)

-Application: R 1/2 -Mass: Plug (892 g), Socket (1676 g)

Dimensions (mm)

Plate type

**MAM-A Type**

**4**  
Ports

Applicable  
Coupling

Plug	Socket
MAM-A-ZEL-4P	MAM-A-ZEL-4S
MAM-A-4P	MAM-A-4S

Plate model of Socket side  
**MAM-A-4S4-CL**

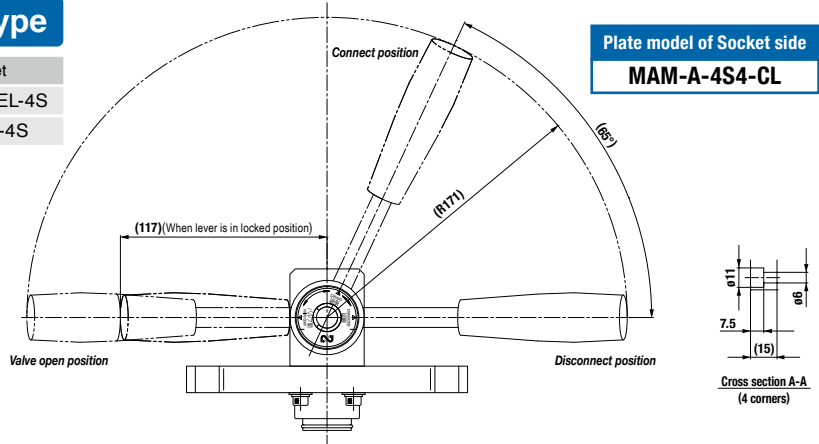
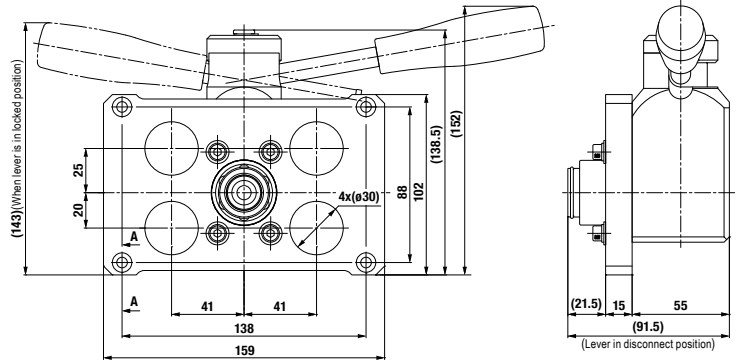
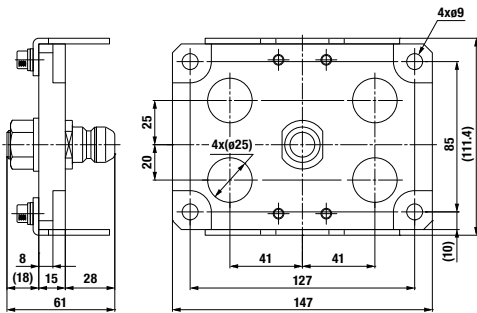


Plate model of Plug side  
**MAM-A-4P4-CL**



Model **MAM-A-4P8-CL**×**MAM-A-4S8-CL** (8 Port Type / Plate size : Large)

-Application: R 1/2 -Mass: Plug (1284 g), Socket (1952 g)

Dimensions (mm)

Plate type

**MAM-A Type**

**8**  
Ports

Applicable  
Coupling

Plug	Socket
MAM-A-ZEL-4P	MAM-A-ZEL-4S
MAM-A-4P	MAM-A-4S

Plate model of Socket side  
**MAM-A-4S8-CL**

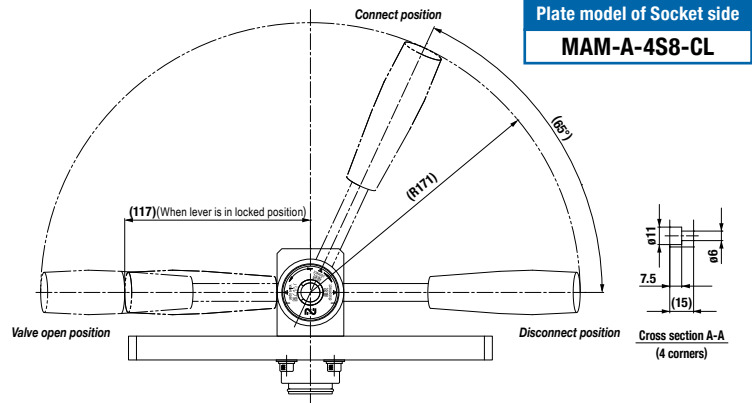
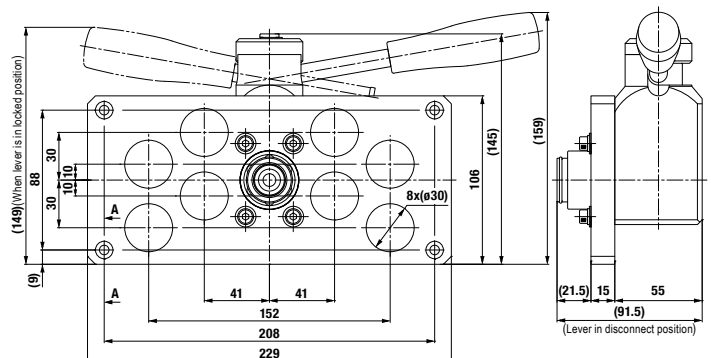
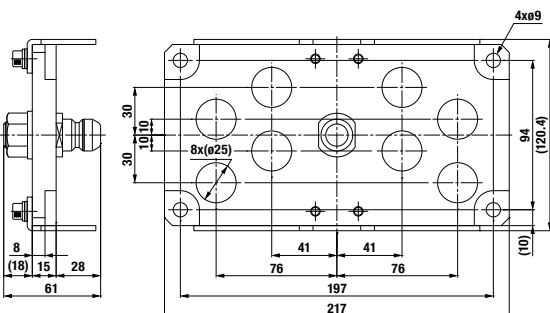


Plate model of Plug side  
**MAM-A-4P8-CL**





## Quick Connect Couplings

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ISO 9001  
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