




For Multi-Port Connection (Automatic)

# Multi Cupla

## MALC-01 Type for Low Pressure Use

One-way shut-off type for Low pressure use

Working pressure  1.0 MPa (10 kgf/cm <sup>2</sup> )	Valve structure  One-way shut-off	Applicable fluids  Air Water
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**Solo use of socket is possible.**  
**Suitable for operation of ejector pins to open / close valve gates in molding.**

- Solo use of socket is possible.
- As in the case of Multi Cupla MALC-SP type and MALC-HSP type, the distance between the socket plate and the plug plate is designed to be 30 mm when connected. This means the Multi Cupla MALC-01 type can also be installed mixed with any size of MALC-SP type and MALC-HSP type on the same plate.
- A 2 mm axial eccentricity allowance eliminates precise centering at installation.
- Compact size with " thread screw mount " and "with flange" types available.



Specifications				
Body material	Socket: Brass (Nickel plated) Plug: Brass (Nickel plated)			
Pressure unit	MPa	kgf/cm <sup>2</sup>	bar	PSI
Working pressure	1.0	10	10	145
Seal material	Sealing material	Mark		Working temperature range
Working temperature range	nitrile rubber	NBR (SG)		-20°C to +80°C

Max. Tightening Torque		Nm {kgf-cm}
Thread screw mount	15 (153)	
Flange	1.5 (15)	

**Interchangeability**  
Socket and plug of MALC-01 Type can be connected regardless of end configuration. Not interchangeable with MALC-SP Type (for medium pressure use) MALC-1SP or MALC-HSP Type (for high pressure use) MALC-1HSP.

Min. Cross-Sectional Area		(mm <sup>2</sup> )
Min. cross-sectional area	28	

**Suitability for Vacuum**  
Not suitable for vacuum application in either connected or disconnected condition.

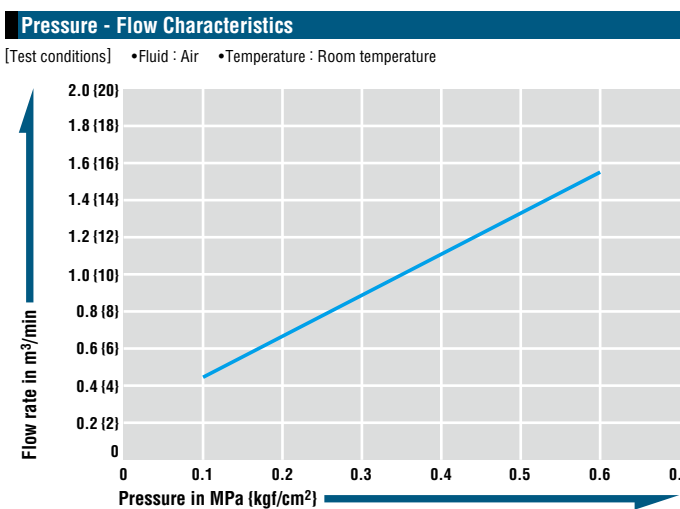
**Load Required to Maintain Connection When Line Is Pressurized**

$$F = (P \times 160) + 50 \{ f = p \times 1.6 + 5 \}$$

Minimum load required to maintain connection F [N] { f [kgf] }

Actual value of pressure P [MPa] { p [kgf/cm<sup>2</sup>] }

Assign the actual value of pressure [P (MPa), p (kgf/cm<sup>2</sup>)] to the above formula.  
Maintain the connection with this load [F (N), f (kgf)] or more.  
However, the maximum acceptable load is 500 N {51 kgf}.

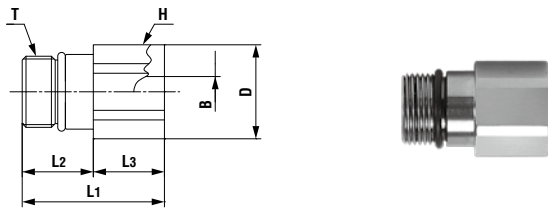


**Acceptable distance between plates**

Socket and plug or plate must be used in contact with each other. Maximum 0.5 mm distance between socket and plug or plate is acceptable.

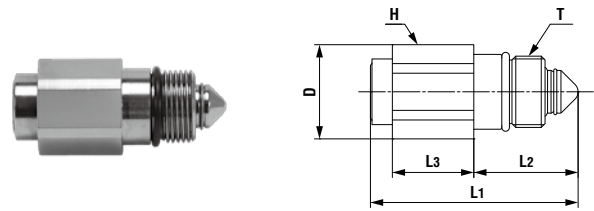
Models and Dimensions

**Plug MALC-01TP type (Thread screw mount)**



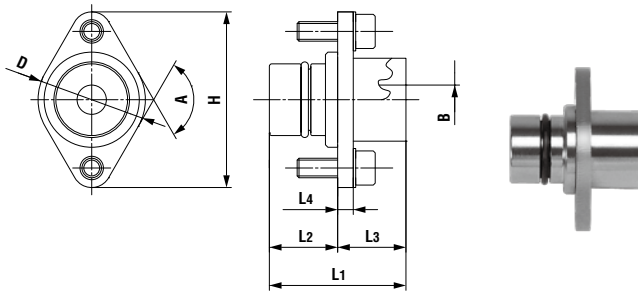
Model	Application	Mass (g)	Dimensions (mm)						
			L1	L2	L3	øD	øB	H(WAF)	T
MALC-01TP	See drawings below.	40	28	(14)	14	18.5	6	Hex.17	M14×1

**Socket MALC-01S type (Thread screw mount)**



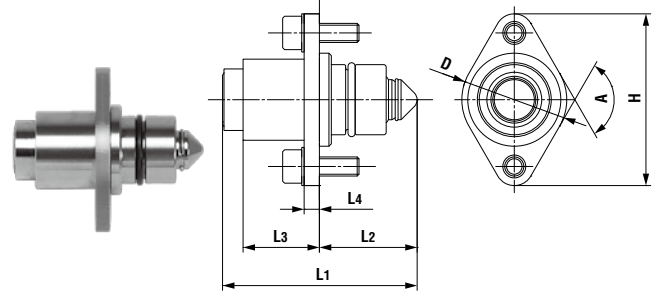
Model	Application	Mass (g)	Dimensions (mm)					
			L1	L2	L3	øD	H(WAF)	T
MALC-01S	See drawings below.	39	(41)	(20.5)	16	18.5	Hex.17	M14×1

**Plug MALC-01TP-FL type (With flange)**



Model	Application	Mass (g)	Dimensions (mm)							
			L1	L2	L3	L4	øD	A	øB	H
MALC-01TP-FL	See drawings below.	52	28	(14)	14	3.2	(22)	120°	6	36

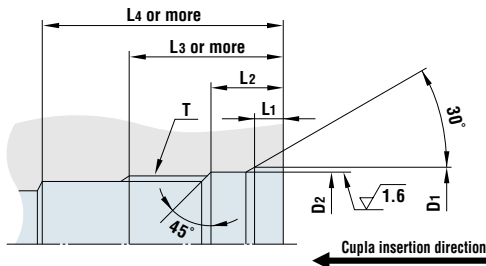
**Socket MALC-01S-FL type (With flange)**



Model	Application	Mass (g)	Dimensions (mm)						
			L1	L2	L3	L4	øD	A	H
MALC-01S-FL	See drawings below.	51	(41)	(20.5)	16	3.2	(22)	120°	36

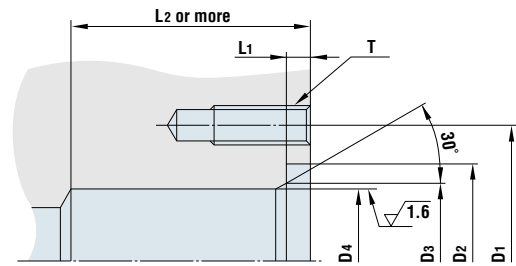
Dimensions of End Configurations

**MALC-01TP / 01S type (Thread screw mount)**



Model	Dimensions (mm)						
	øD1	øD2	L1	L2	L3	L4	T
MALC-01S	15.8 <sup>+0.05</sup> <sub>0</sub>	14.8 <sup>+0.05</sup> <sub>0</sub>	3	7.5 <sup>+0.2</sup> <sub>0</sub>	16	25	M14 × 1
MALC-01TP						18	

**MALC-01TP-FL / 01S-FL type (With flange)**

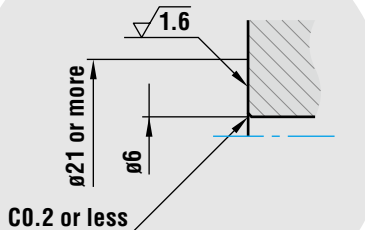


Model	Dimensions (mm)						
	D1	øD2	øD3	øD4	L1	L2	T
MALC-01S-FL		20	16	14.8 <sup>+0.05</sup> <sub>0</sub>	2.5 <sup>+0.1</sup> <sub>0</sub>	25	2×M4×0.7
MALC-01TP-FL	PCD28					16	Thread depth 10 mm or more

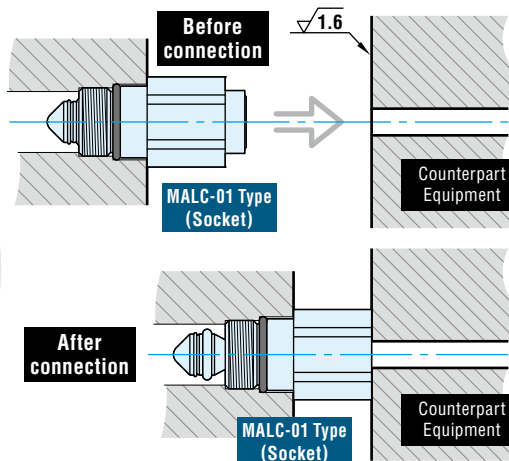
**Solo use of socket is possible**

The shape of counterpart for solo use of socket

The shape of counterpart for connection



The angle of inclination between the socket and counterpart must be within 0.5 degrees.



Distance between plates is 16 mm for solo use of socket.

As in the case of Multi Cupla MALC-SP type and MALC-HSP type, the distance between the socket plate and the plug plate is designed to be 30 mm when connected. This means the Multi Cupla MALC-01 type can also be installed mixed with any size of MALC-SP type and MALC-HSP type on the same plate.

A 2 mm axial eccentricity allowance.

