



Fine regulator (pilot operated)

PMP⁰₂⁴02 Series

Changes in pressure of chemical liquids and pure water supply parts can be achieved with pilot air control, A regulator designed to adjust pressure for stability.

- Connection tube size: ø6, ø10, ø12, ø25, 1/4", 3/8", 1/2", 3/4", 1"

RoHS

Export controlled items

* Eligibility: PMP402 (*4)

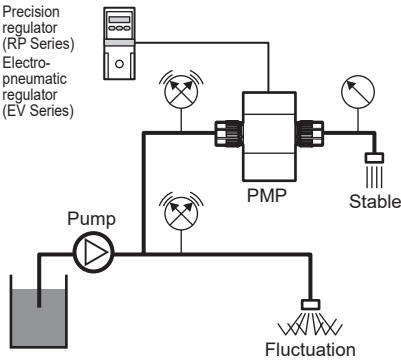
Specifications

Item	PMP002	PMP202	PMP402
Working fluid	Pure water, chemical liquids (*2)		Pure water (*3)
Fluid temperature °C	10 to 90		10 to 90
Proof pressure MPa	1.0		1.0
Max. working pressureMPa	0.5		0.5
Set pressure MPa	0.02 to 0.3		0.07 to 0.4
Operating pressureMPa	0 to 0.4		0 to 0.45
Recommended flow rateL/min	0.2 to 3	0.2 to 5	2 to 20
Operating port	Rc1/8		Rc1/8
Ambient temperature°C	10 to 60		10 to 60
Mounting orientation	Unrestricted		Unrestricted
Connection	O.D. ø6 tube connection (integrated fitting), O.D. 1/4" tube connection (integrated fitting), O.D. ø10 tube connection (integrated fitting), O.D. 3/8" tube connection (integrated fitting)		O.D. 3/4" tube connection (Integrated fitting) (O.D. 1" and OD1/2" options available)
Weight kg	0.13	0.28	1.7

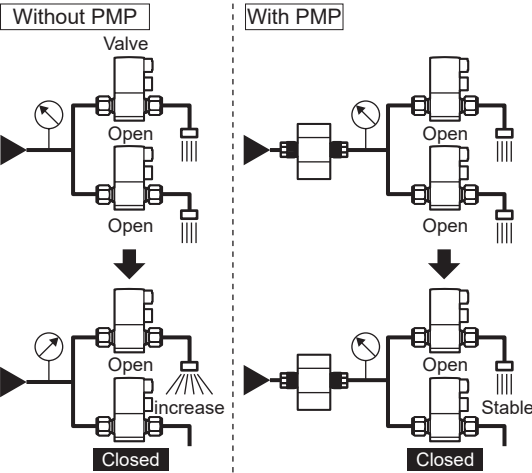
- *1: Non-relief
 *2: Check the compatibility of product structural materials, working fluids and atmosphere.
 *3: Contact CKD when using chemical liquids.
 *4: Excludes O.D. ø12 and 1/2" tube connection.
 *5: When using chemical liquids with high permeability, permeated gas may contaminate the pilot mechanism, which may adversely affect the operating components. Consult with CKD if protection is needed for the operating components.

Application

Stable discharge (pressure/flow rate)

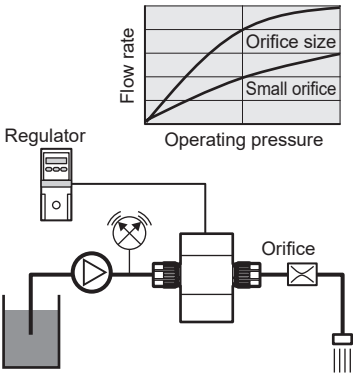


Branched flow rate uniformizing



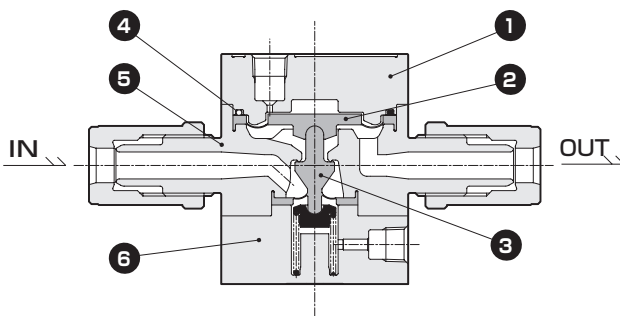
Note: Install a flow rate adjustment valve such as FMD00 on the secondary side when adjusting fine flow rates.

Remote flow rate setting



⚠ Always read the precautions on Intro Pages 7 to 14 before use.

How to order



Part No.	Part name	Material
1	Cover	PVDF
2	Diaphragm	PTFE
3	Valve diaphragm	PTFE
4	O-ring	FKM
5	Body	PFA, PTFE
6	Bottom plate	PVDF

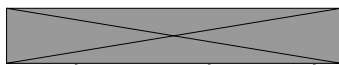
The material and structure may vary depending on the model number. Contact CKD for details.

How to order

PMP002 - 10BUP - X

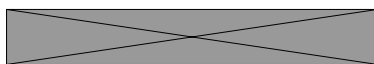
Model No. ❶ Connection ❷ Mounting method

Code	Description	ø 100	1/4" (6.35)	ø 150	3/8" (9.52)
Body material		PFA		PFA	
② Mounting method					
F	Flange mounting	●		●	
X	Bottom mounting	●		●	



Model No. ① Connection ② Bottom plate direction

n plate direction			① Connection							
			6UP	8BUP	6UR	8BUR	10UP	10BUP	10UR	10BUR
			Super 300 Pillar fitting P series integrated		F-LOCK 60 Series Integrated fitting		Super 300 Pillar fitting P series integrated		F-LOCK 60 Series Integrated fitting	
			ø6 x ø4 tube connection	1/4" x5/32" tube connection	ø6 x ø4 tube connection	1/4" x5/32" tube connection	ø10 x ø8 tube connection	3/8" x 1/4" tube connection	ø10 x ø8 tube connection	3/8" x 1/4" tube connection
			PFA		PFA		PFA		PFA	
			② Bottom plate direction							
Code	Description	●		●		●		●		
Body material		PFA		PFA		PFA		PFA		
Blank	Vertical	●		●		●		●		
1	Horizontal	●		●		●		●		



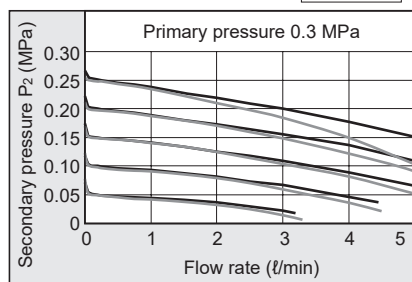
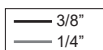
Model No. ① Connection Fluid specification
 ② Bottom plate direction

		1 Connection				
		12UP	25UP	15BUP	20BUP	25BUP
		Super 300 Pillar fitting P Series integrated				
		ø12 x ø10 tube connection	"25 x ø22 tube connection	1/2" x 3/8" tube connection	3/4" x 5/8" tube connection	1" x 7/8" tube connection
		PTFE	PTFE	PTFE	PTFE	PTFE
Code	Description					
Body material		PTFE	PTFE	PTFE	PTFE	PTFE
2 Bottom plate direction						
Blank	Vertical	●	●	●	●	●
1	Horizontal	●	●	●	●	●

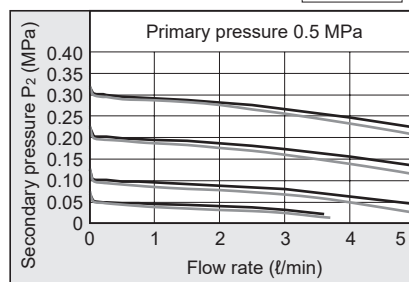
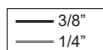
Flow characteristics / Pressure characteristics / Pressure adjustment characteristics

PMP002

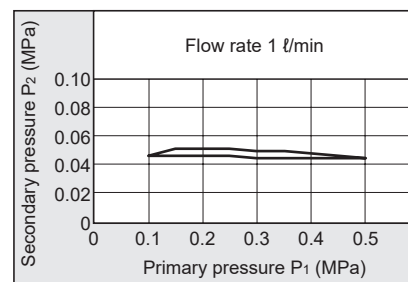
Flow characteristics 1 (water)



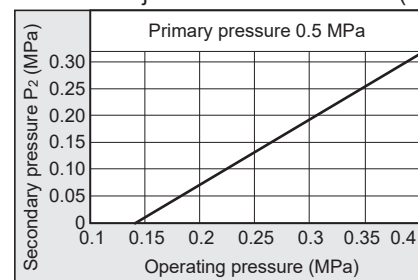
Flow characteristics 2 (water)



Pressure characteristics (water)

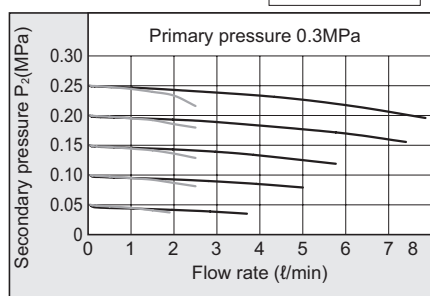
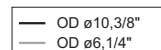


Pressure adjustment characteristics (water)

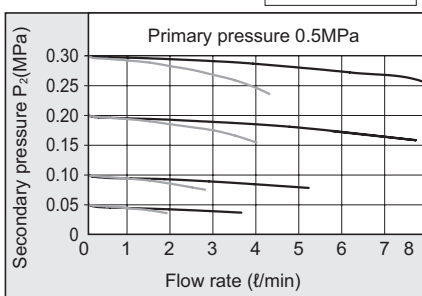
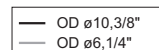


PMP202

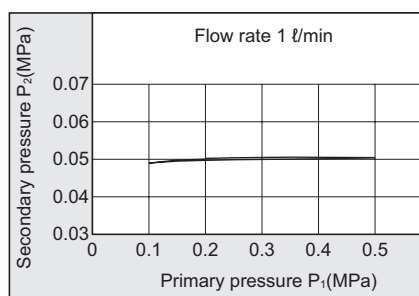
Flow characteristics 1 (water)



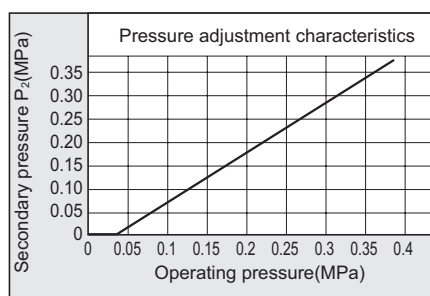
Flow characteristics 2 (water)



Pressure characteristics (water)

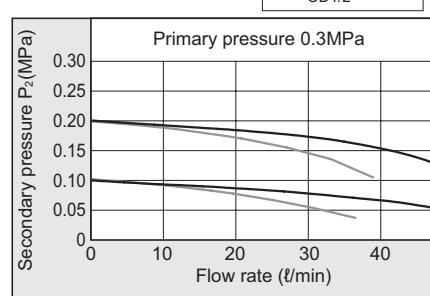
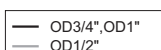


Pressure adjustment characteristics (water)

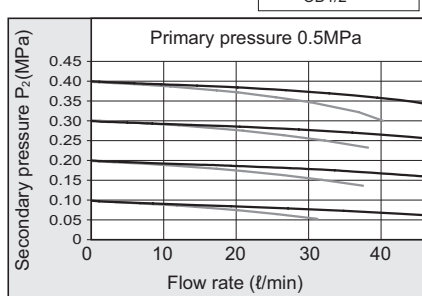
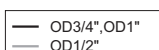


PMP402

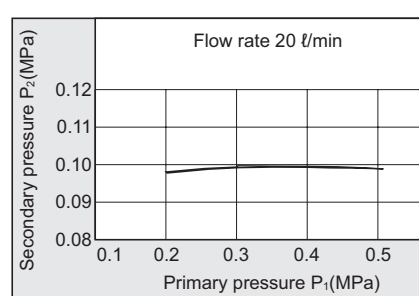
Flow characteristics 1 (water)



Flow characteristics 2 (water)

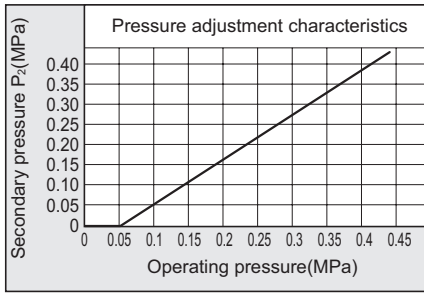


Pressure characteristics (water)



PMP402

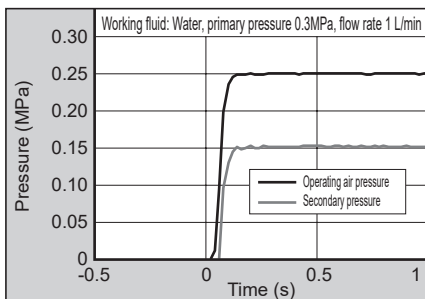
Pressure adjustment characteristics (water)



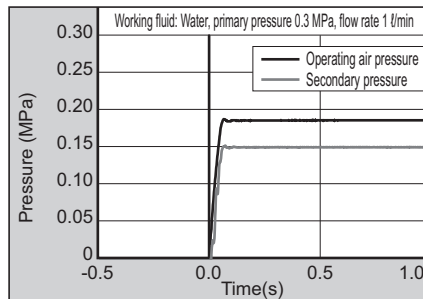
Reference data

Responsivity Tracking of secondary side pressure for operating air

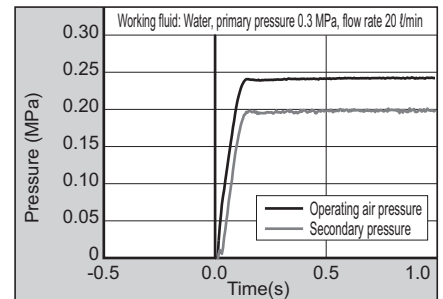
PMP002



PMP202

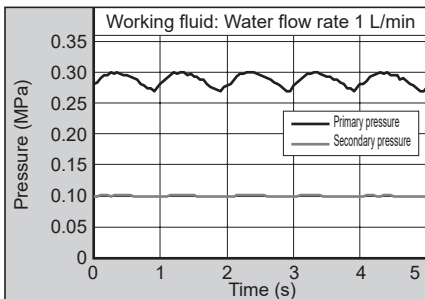


PMP402

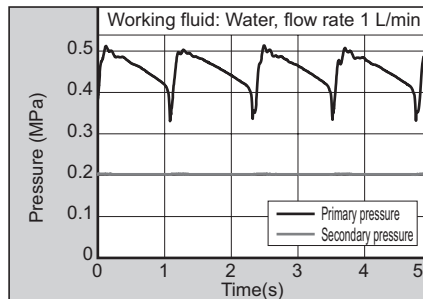


Pulsation absorption Stability of secondary pressure against pulsation of primary pressure

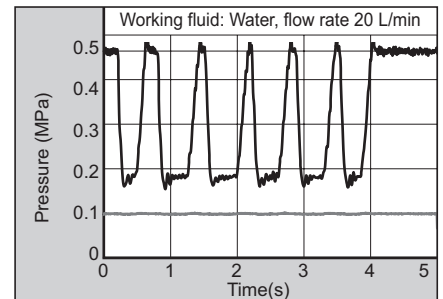
PMP002



PMP202

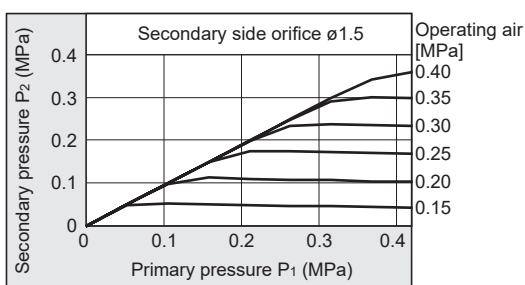


PMP402



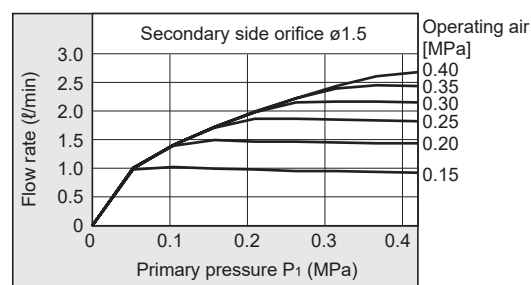
Operating air pressure - secondary pressure characteristics (water)

PMP002



Operating air pressure - flow characteristics (water)

PMP002



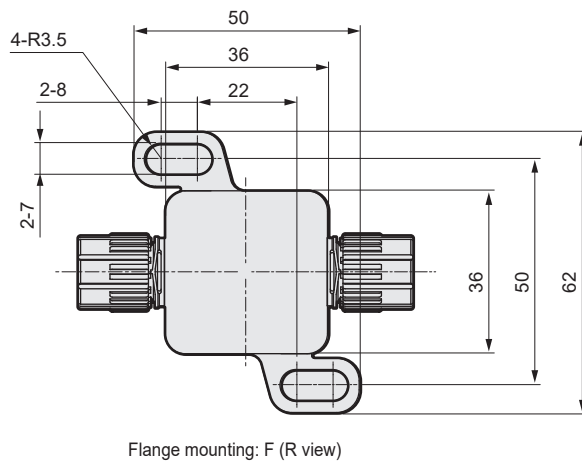
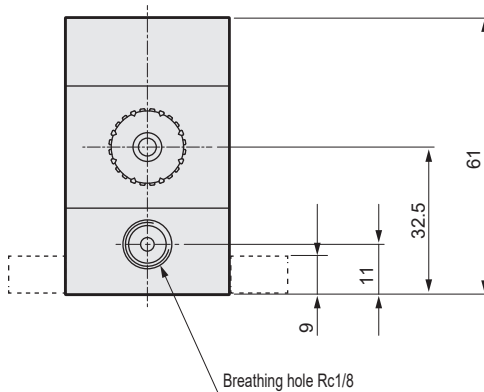
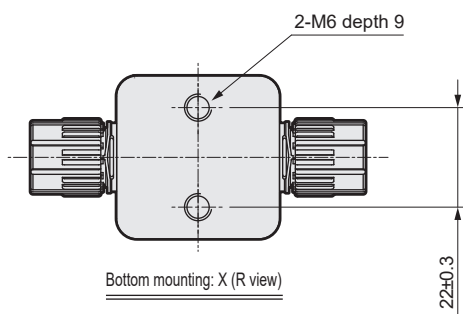
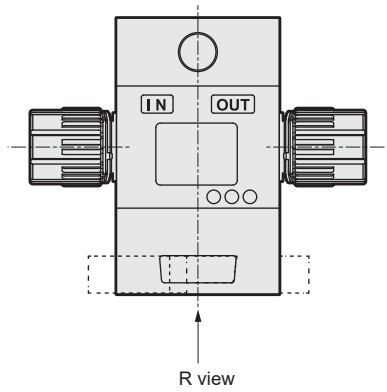
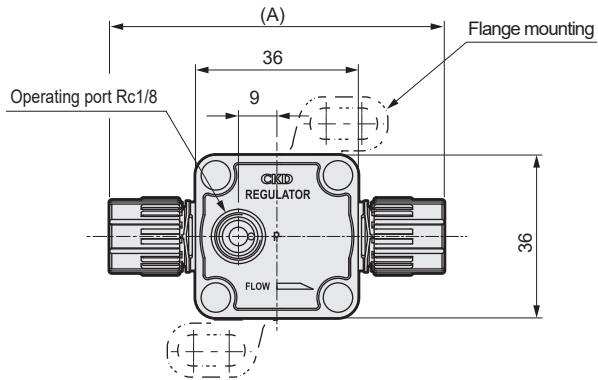
■ How to use

- Set the temperature, pressure, flow rate and other use conditions within the specification range of the product.
- If the product will be out of use for long periods, stop the supply pressure on the primary side.
- This product is a non-relief-type, and if used with the secondary side closed, it may retain the high pressure generated by water hammer, etc.
- Do not use as a residual pressure exhaust valve.

Part3R	Part2	Part1	High pressure	Metall-free	Large bore size	Polyvinyl chloride	Drainage	Part3RN	Part2	High pressure	Metall-free	Large bore size	Single unit	Air operated integrated	Pilot	Manual	Electric	Manual	Manual/Fine flow rate	Fine level Switch	Related products
			Air operated valve							Manual valve						Regulator	Flow rate adjusting valve				

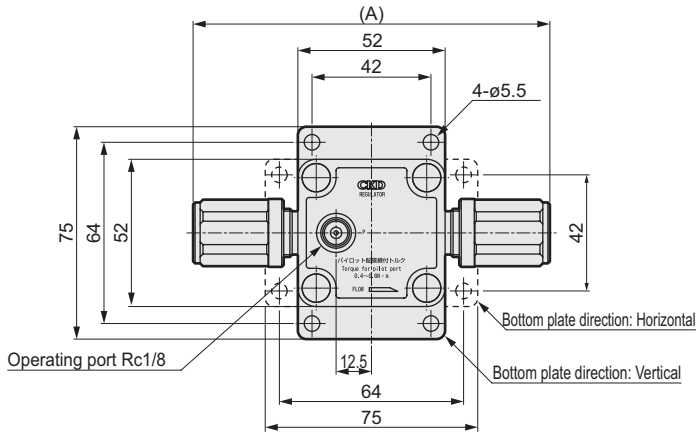
Dimensions

●PMP002-*1-*

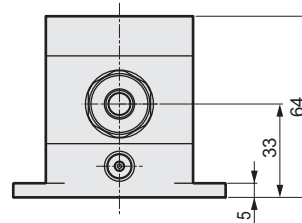
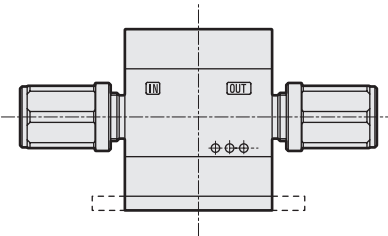


Dimensions		A
*1	Connector No.	
	6UP	74
	8BUP	74
	10UP	86
	10BUP	86

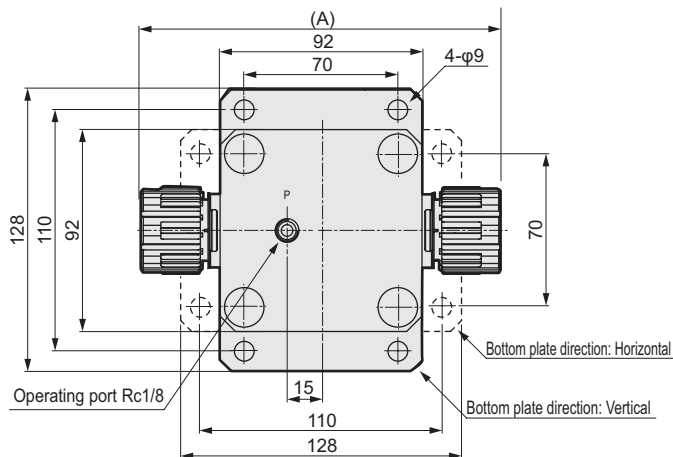
●PMP202- *1 *



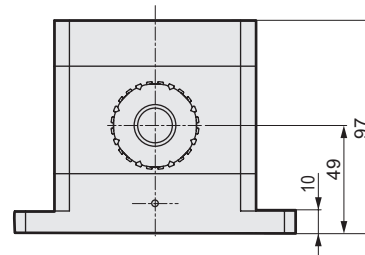
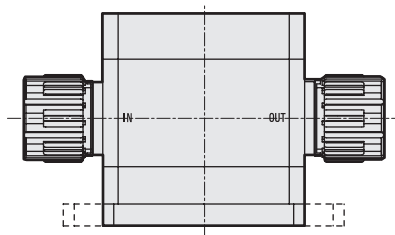
Dimensions	
*1 (Connector No.)	A
6UP	90
8BUP	90
6UR	112
8BUR	114
10UP	102
10BUP	102
10UR	126
10BUR	130



●PMP402- *1 -*N



Dimensions	
*1 (Connector No.)	A
12UP, 15BUP	150
20BUP	164
25UP, 25BUP	178



Part3R	Part2	Part1	High pressure	Meta-free	Large bore size	Polyvinyl chloride	Drainage	Part3RN	Part2	High pressure	Meta-free	Large bore size	Single unit	Air operated integrated	Pilot	Manual	Electric	Manual	Manual Fine flow rate	Fine level Switch	Related products
			Air operated valve							Manual valve											