

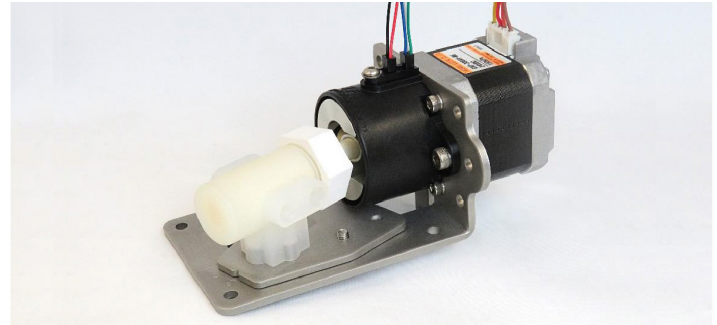
TAKASAGO FLUIDIC SYSTEMS

VALVELESS CERAMIC PISTON PUMP

CAP Series

DESCRIPTION

The CAP Series ceramic piston pump has been designed with a stepper motor and optical sensors for high repeat precision of 0.5% at flow rates less than 330 microliters per shot. The 24 V stepper motor can achieve a service life of 10 million cycles or more. The pump head is available with wetted materials of PVDF, PTFE and Ceramic (Al₂O₃). Customization is available upon request.



SPECIFICATIONS

GENERAL

Typical Flow Rate	100 µL/shot, 200 µL/shot, 300µL/shot
Repeat Precision	CV 0.5 % *2
Motor Speed Range	⁵ ~ ³⁰⁰ RPM
Max. Discharge Pressure	150 kPa
Fluid Temperature Range	0 ~ 60°C
Ambient Temperature Range	0 ~ 40°C
Motor	2-Phase Bipolar-Type Stepper Motor
Rated Voltage	24 VDC
Port Connection	M6, 1/4-28UNF
Wetted Materials	PVDF, PTFE, Ceramic (Al ₂ O ₃)
Outer Dimensions	130 × 84 × 68 mm
Weight	Approx. 630 g

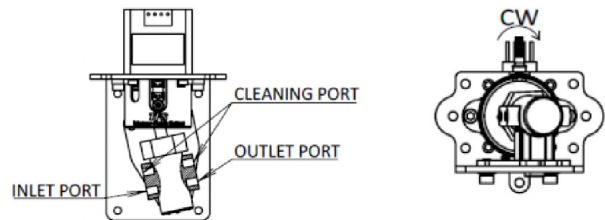
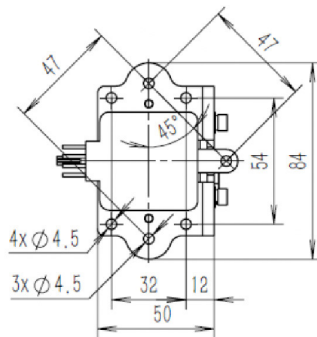
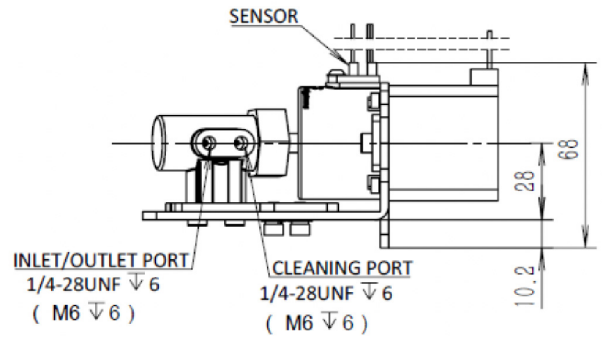
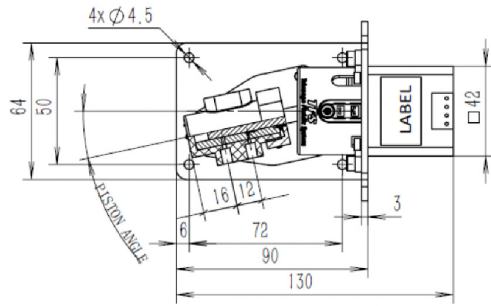
*1 Based on our experimental conditions.

*2 Tested at 100 RPM, 10shot no pressure conditions.

FEATURES

- Ceramic piston pump with stepping motor drive and optical sensor for high repeat precision (CV 0.5%).
- Ceramic with excellent abrasion resistance is used to achieve a service life of 10 million cycles*1 or more.
- Wetted parts are made of PVDF, PTFE, and Al₂O₃ for superior corrosion resistance.
- Flow rates of 100 µL, 200 µL, and 300 µL/shot are standard, but customization is available upon requests.

DIMENSIONS (MM)



MODEL LINEUP

C	A	P	-	① 300	② A	③ V	-	④ 1/4U
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① Flow Rate (μ L/shot)

② Piston / Cylinder Material:

A
Al ₂ O ₃

③ Pump Head Material:

V	T
PVDF	PTFE

④ Port Connection:

1/4U	M6
1/4U-28UNF	M6