

TAKASAGO

MCP & PKP Series Inert Dispensing Pumps

Solenoid Operated, Dispensed Volumes From 1 to 500 µl

DESCRIPTION

Model MCP & PKP dispensing pumps have inert wetted parts and accurately dispense liquid media over an adjustable range of 1 to 500 micro liters.

The pumps utilize a solenoid operated piston with a spring return. The MCP-10 type pump is basically a two-way inert valve with one port plugged. The pumping function is like that of an eye dropper. The MCP-50 and the PKP type pump have opposing duck bill type check valves at the pump inlet and outlet that work with the piston movement for pumping action. The piston stroke can be field adjusted or factory set to deliver a prescribed volume with each solenoid actuation. The process media is isolated from the metal solenoid parts by an inert diaphragm.

Model PKP 300 can pump a maximum of 300 micro liters per solenoid actuation and Model PKP-500 can pump 500 micro liters.

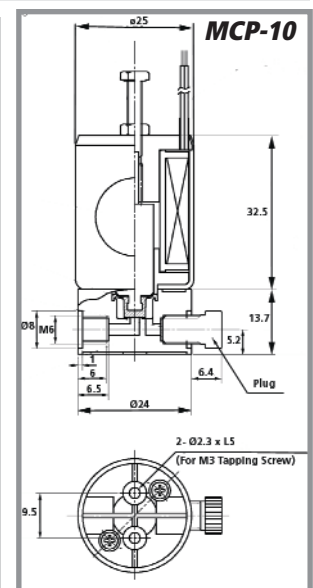
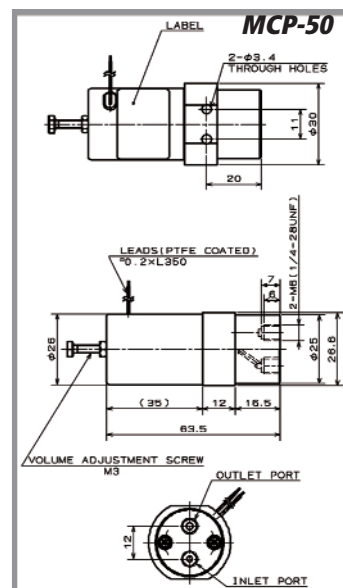
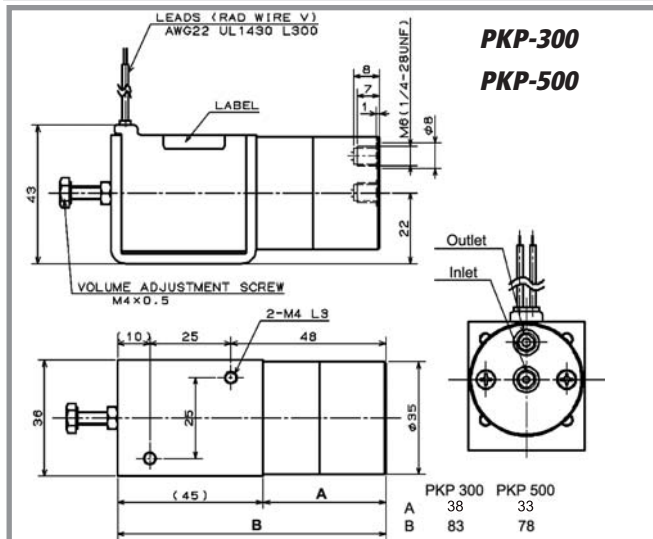


Model MCP-50

SPECIFICATIONS

Pump Model-	MCP-10R	MCP-50	PKP-300PF	PKP-500P
Rated Voltage-	5VDC, 12Vdc, 24Vdc	12Vdc, 24Vdc	12Vdc, 24Vdc	12Vdc, 24Vdc
Power Consumption-	2.6w	4.4w	5.5w	5.5w
Max Pumped Volume/Actuation-	10µl	50µl	300µl	500µl
Adjustable Range-	1-10µl	5-50µl	10-300µl	50-500µl
Pumped Volume Accuracy-	-	±1% 15-50µl; ±2% 5-15µl	±1%	±1% 50-500µl; ±2% 10-50µl
Max Operating Frequency-	4Hz	4Hz	1Hz	2Hz
Fluid Connection-			1/4-28 thread or M6	
Media Temp Range-			10-40°C	
Ambient Temp Range-			10-40°C	
Insulation Class-	Class B	Class B	Class E	Class E
Insulation Resistance-			min 50Mohm at 500Vdc	
Dielectric Strength-			1500Vac/60 seconds	
Body Material-	PPS	PTFE, POM, PP	POM, PP	POM, PP
Isolation Diaphragm-			FPM	
Check Valves-	none	FPM	FPM	Silicone

Operating Notes, models MCP-50, PKP-300,500: 1) The pump duck bill type check valves open at very low differential pressure so the pump outlet must be mounted above the fluid reservoir to prevent siphoning. 2) The pump should be mounted horizontally with the base side down. 3) When the dispense volume is less than 250µl, purging air bubbles is more difficult. It is therefore advisable to prime the pump at max delivery before setting the desired dispense volume. Consult factory for effect of media temperature on output.



*Model	Description
MCP-50-12V-PTFE	5-50µL, 12VDC, PTFE BODY
MCP-50-24V-PTFE	5-50µL, 24VDC, PTFE BODY
PKP-500P-12V-PP	50-500µL, 12VDC, PP BODY
PKP-500P-24V-PP	50-500µL, 24VDC, PP BODY

*These items are typically available from stock. Please call us to discuss other models of interest in the specification table