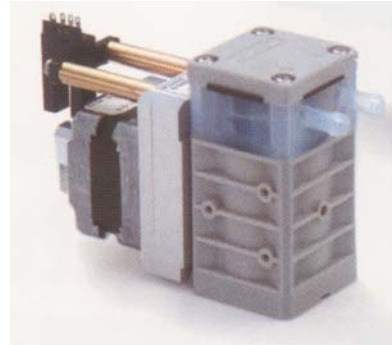


**NAMIKI****Model 7039 & 7049 Miniature Diaphragm Liquid Pumps**

*Adjustable Flow, Vac. to 375 mm Hg, Pressure to 1.0 bar, Flow to 110 ml/min*

**DESCRIPTION**

Models 7039 & 7049 liquid diaphragm pumps are an excellent choice where flow control, chemical resistance, plastic wetted components, DC power operation and quiet, reliable performance are required. They are typically used on medical equipment, laboratory automated chemistry applications, environmental sampling equipment and a range of industrial applications such as pick-and-place operations, ink jet printer systems and food packaging equipment.



Model 7039 & 7049 pumps incorporate a 24 V stepper motor and have a nominal delivery of 32 ml/min (0.32 ml/stroke) at 100 RPM. The motor shaft incorporates an eccentric that is attached to the pump diaphragm. Two opposing floating discs with seats respond to the diaphragm motion resulting in pumping action.

A driver circuit is offered as an option for driving the stepper motor. A photomicrosensor is also available for feedback based on the position of the diaphragm.

The pump is produced by Namiki Corporation, a world leader in DC motor production and technology.

**SPECIFICATIONS****GENERAL**

Ports: Hose nozzle (barb) for 3-4 mm I.D. tubing,  
5 mm optional

Wetted Materials:

Pump Body: PFA

Diaphragm, Seal & Valve Material: \*FKM Enhanced  
or PTFE-coated diaphragm, FFPM valves

\*Proprietary fluoro elastomer for improved  
chemical resistance (excellent for Ammonia,  
Methanol & Toluene)

Ambient & Fluid Temperature Range: 0 to 50°C

Exhaust Pressure Range: 0 to 1.0 bar (14.7 PSI)

Suction Pressure Range: 0 to -375 mm Hg

Nominal Voltage: 10.8 V

Motor: 3-Phase stepper motor

Step: 1.2°/step

Nominal Speed: 100 (full step) RPM

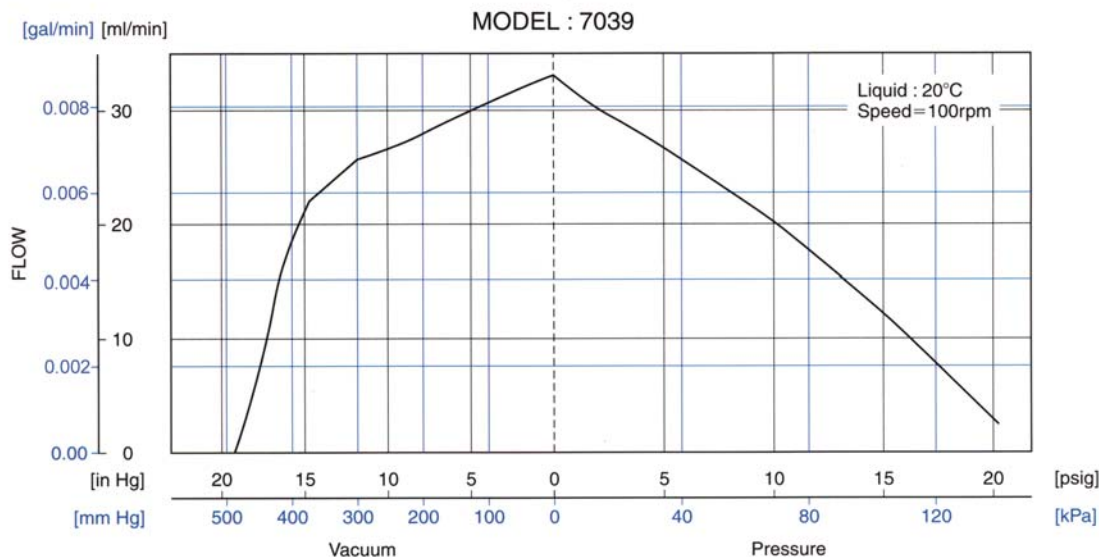
Flow Rate at Nominal Speed: 32 ml/min

Nominal Current Consumption: 0.3 A/phase

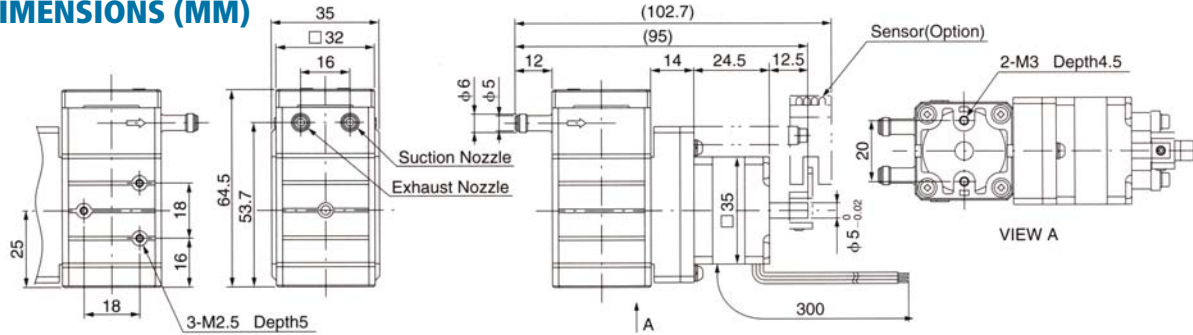
Pull-in Rate: Over 900 (full step) pps

Pull-out Rate: Under 1100 (full step) pps

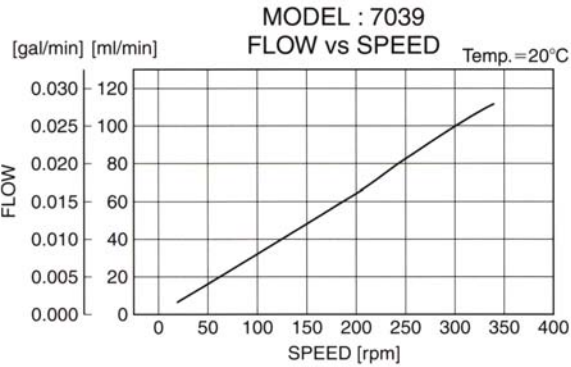
Weight: 280g



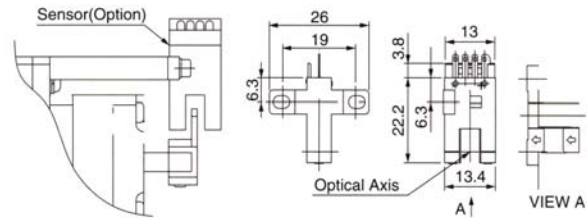
## DIMENSIONS (MM)



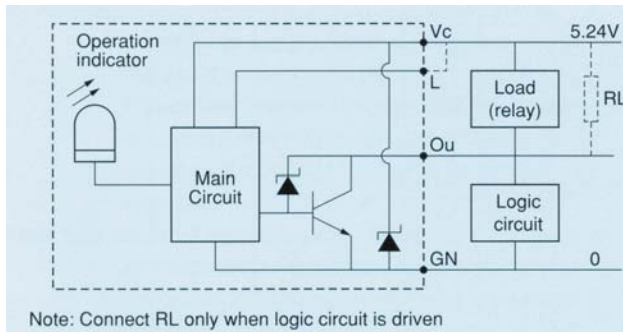
## FLOW/SPEED CHARACTERISTICS



Optional Photomicrosensor: Omron, EE-SX672A



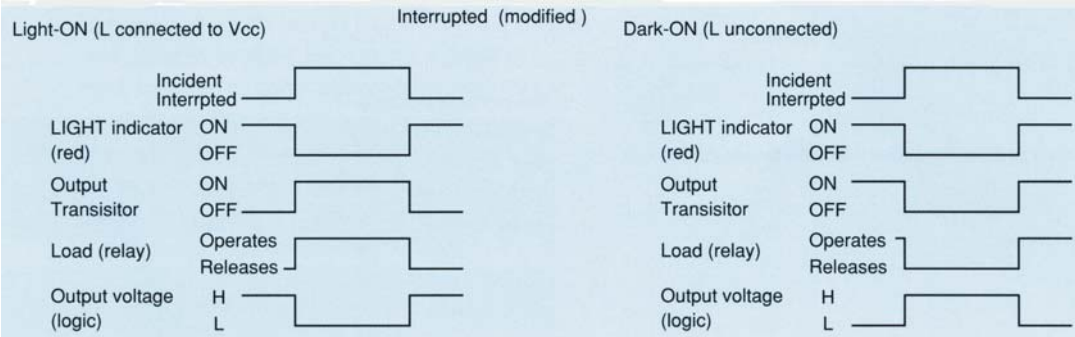
## PHOTOMICROSENSOR OUTPUT CIRCUIT (NPN)



Supply Voltage: 5 to 24 V  
Current Consumption: 35 mA  
Max Load Current: 100 mA  
Max Frequency: 1 kHz  
Electrical:

Pin 1- Vcc  
Pin 2- L  
Pin 3- Output

## PHOTOMICROSENSOR TIMING CHART



## ORDERING INFORMATION

Included Items	Model Number							
	7039D	7039S	7039SD	7049	7049D	7049S	7049SD	7039 Driver
Diaphragm, Seal & Valve Material	FKM	FKM	FKM	PTFE	PTFE	PTFE	PTFE	-
Built-in Photomicrosensor	No	Yes	Yes	No	No	Yes	Yes	-
7039 Driver Supplied with Pump	Yes	No	Yes	No	Yes	No	Yes	-

**Bold Items Typically Ship From Stock**



Optional 7039 Stepping Motor Driver