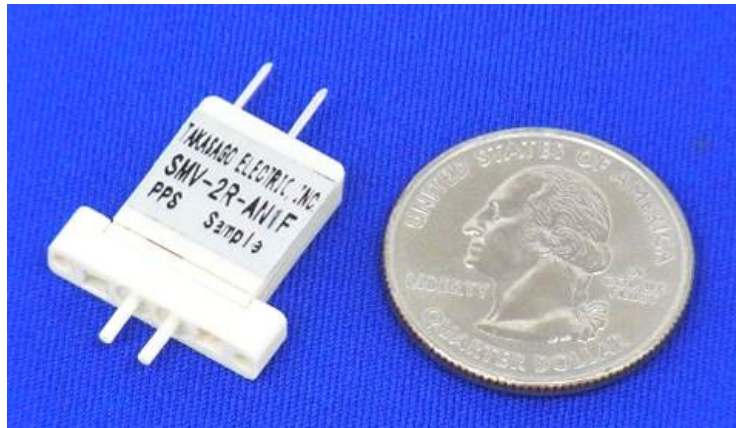


# MINIATURE LOW-COST VALVE SMV Series

(Patented)



## Features

This valve is driven by a piece of shape memory alloy, giving it the following features:

- Compact and light weight: 19 x 18.4 x t4 mm and 1.5 g (approx.).
- Silent operation
- Low power consumption – 0.3 W or less.
- Low cost and disposable.

## Specifications

Type	2-Way N.C.			
Model	Standard		High pressure	
Orifice Diameter (mm)	0.4, 0.8		0.4	0.8
Port Connection	Hose pipe, O-ring (Manifold mount)			
Operating Pressure Range (kPa)	IN	0 ~ 100	0 ~ 250	0 ~ 200
	OUT	0 ~ 50	0 ~ 100	
Operating Temp. Range	5 ~ 40 °C			
Electrical Supply	Current 250 mA *1			
Response Time(Typ.) *2	ON: 600 ms, OFF: 600 ms			
Wetted Materials	Body	PPS *3		
	Diaphragm	FPM or EPDM *3		

\*1: Please see "Cautions concerning Power Supply" below.

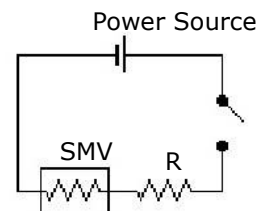
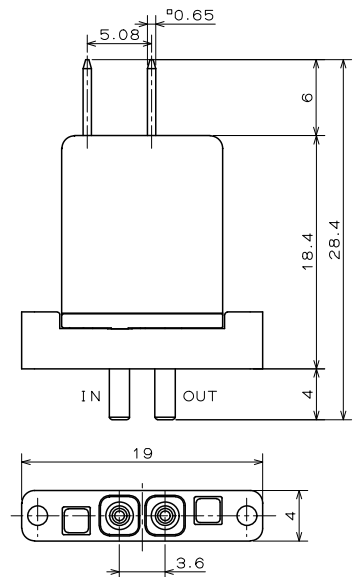
\*2: Response times vary depending on the ambient temperature. The values above are measured at 30°C. Can be improved by controlling the applied current (e.x. PWM, a spike & hold circuit, etc.). Please contact us for details.

\*3: PEEK & Perfluoroelastomer are optionally available.

## Cautions concerning Power Supply

1. Power supply by a constant current circuit is recommended.
2. Operation by 12 VDC power supply or batteries is also possible, but a resistor must be inserted between the valve and the power source. See diagram on right.
3. If you operate the valve by any other method, the shape memory alloy may burn out, resulting in the valve malfunctioning.

## Dimensions



Power Source	Resistor	
12 VDC Power Supply	45 Ω	5 W
AA battery x 2	10 Ω	1 W

Note: Details including specifications may change without notification.

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