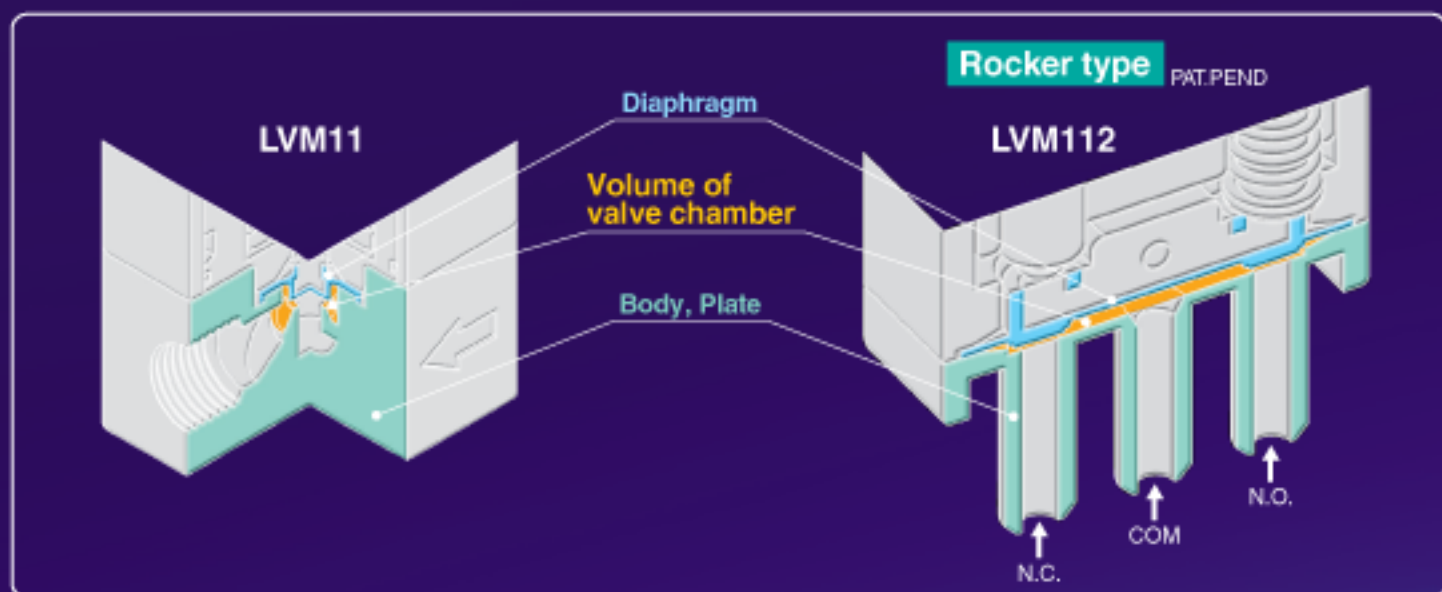


Super Compact Direct Acting 2/3 Port Solenoid Valve for Chemicals

Valve chamber volume of **20 μ l or less**

SMC's unique construction reduces residual liquid to a minimum.
Volume of valve chamber is minimized to avoid the waste of reagents.



< Volume of valve chamber >

The volume of clearance inside the valve chamber found by subtracting the volume of the diaphragm (also excluding the piping volume).

LVM1□R	20 μ l or less
LVM11□	19 μ l or less

- **Wetted part material**
Body and plate: **PEEK**
Diaphragm: **EPDM, FKM or FFKM**
can be selected. Note) FFKM is available as a special order.
- **Service life: 10 million cycles or more**
Note) Based on SMC test conditions.



Series **LVM10/100**

- Power consumption: 1W(LVM11)/1.5W(LVM1nR, LVM11□)
- Valve width: 13mm
- Weight: 30g (LVM11)/32g (LVM1□R, LVM11□)

Variations

Body ported type

LVM11



Tubing type

LVM11R
12R
112

Manual override
(Optional)

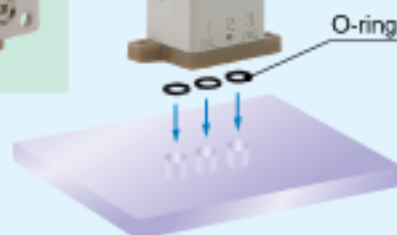
Bracket (Optional)

Tubing



Base mounted type (O-ring seal)

LVM13R
14R
115



Model	Body ported type	Tubing type			Base mounted type (O-ring seal)		
	LVM11	LVM11R	LVM12R	LVM112	LVM13R	LVM14R	LVM115
Valve construction	Diaphragm type direct operated poppet	Diaphragm type direct operated poppet (Rocker type)					
Valve type	N.C.	N.C.	N.O.	Universal	N.C.	N.O.	Universal
Number of ports	2	2		3	2		3
Fluid Note 1)	Air, Water, Pure water, Diluent, Cleaning solvent						
Operating pressure range	0 to 0.25 MPa	200 Torr to 0.25 MPa					
Orifice diameter	1.5 mm	1.4 mm					
Flow characteristics (Cv factor)	0.04	0.03					
Response time	10 ms or less						
Leakage	Zero leakage, either external or internal (at hydraulic pressure)						
Proof pressure	0.38 MPa						
Ambient temperature	0 to 50 °C						
Fluid temperature Note 2)	1 to 50 °C (with no condensation)						
Volume of valve chamber	11 µℓ	20 µℓ	19 µℓ	19 µℓ	20 µℓ	20 µℓ	19 µℓ
Mounting orientation Note 3)	Free						
Enclosure	Equivalent to IP40						
Weight	30 g				32 g		
Rated voltage	12, 24 VDC						
Allowable voltage fluctuation Note 4)	±10% of rated voltage						
Type of coil insulation	Class B						
Power consumption	2.5 W at inrush 1 W at holding (with built-in power saving circuit)	1.5 W					
Coil switching noise Note 5)	50 dB						

Note 1) Select an appropriate material for the wetted part when fluid such as a cleaning solvent is used. Also, be sure to confirm the fluid compatibility in advance.

Note 2) Indicates the volume of clearance inside the valve chamber after the volume of the diaphragm is subtracted.

Note 3) Since the body (orifice shape) is designed to eliminate residual liquid, mounting in a vertical direction with the coil at the top is recommended.

Note 4) When the response speed is regarded as important, prevent negative fluctuation of the voltage by adequate regulation.

Note 5) The value is based on SMC's measurement conditions. The noise level will vary with conditions.

SMC Corporation

1-16-4 Shimbashi, Minato-ku, Tokyo 105-8659, JAPAN

Tel: 03-3502-2740 Fax: 03-3508-2480

URL: <http://www.smcworld.com>

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* Specifications are subject to change without prior notice and any obligation on the part of the manufacturer.

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