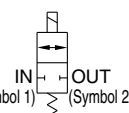
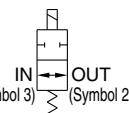
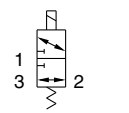


Compact Direct Operated 2/3 Port Solenoid Valve for Chemicals Series *LVM20/200*

How to Order

Base Mounted LVM **20R3** - **5** **A** - -

Symbol	Number of ports	Valve type	
20R3	2	N.C.	
		N.O.	
205R	3	Universal	

CE compliant	
Nil	None
Q	CE compliant

Lead wire length	
Nil	300 mm
6	600 mm
10	1000 mm

Wetted part material		
Symbol	Plate	Diaphragm
A	PEEK	EPDM
B	PEEK	FKM
C	PEEK	Kalrez®

Coil voltage	
Symbol	Voltage
5	24 VDC
6	12 VDC

Function	
Nil	Standard
Y	With power-saving circuit



Specifications

Model	Base mounted		
	LVM20R3	LVM20R4	LVM205R
Valve construction	Diaphragm type direct operated poppet (Rocker type)		
Valve type	N.C.	N.O.	Universal
Number of ports	2		3
Fluid ^{Note 1)}	Air, Water, Pure water, Diluent, Cleaning solvent		
Operating pressure range	-75 kPa to 0.3 MPa		
Orifice diameter	2 mm		
Response time	20 ms or less (at pneumatic pressure)		
Leakage	Zero leakage, either external or internal (at water pressure)		
Proof pressure ^{Note 2)}	0.45 MPa		
Ambient temperature	0 to 50°C		
Fluid temperature	0 to 50°C (with no condensation)		
Volume of valve chamber ^{Note 3)}	84 μℓ		
Mounting orientation ^{Note 4)}	Free		
Enclosure	IP40 or equivalent		
Weight	80 g		
Rated voltage	12, 24 VDC		
Allowable voltage fluctuation ^{Note 5)}	±10% of rated voltage		
Type of coil insulation	Class B		
Power consumption (When rated voltage is at 24 V)	Standard		2.5 W (0.1 A)
	With power-saving circuit	Inrush	4 W (0.17 A)
		Holding	0.6 W
Coil switching noise ^{Note 6)}	60 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 pressure which does not generate breakage, cracks or external leakage after a one-minute airtight test.

Note 3) Indicates the volume of clearance inside the valve chamber after the volume of the diaphragm is subtracted.

Note 4) Since the body (orifice shape) is designed to eliminate residual liquid, mounting in a vertical direction with the coil at the top is recommended. When residual liquid is not considered, any mounting orientation is available.

Note 5) When the response speed is regarded as important, prevent negative fluctuation of the voltage by adequate regulation.

Note 6) The value is based on SMC's measurement conditions. The noise level will vary with conditions.

Note 7) Refer to 10 in "Design and Selection" on the back of page 2, if the valve is to be energized continuously for extended periods of time.

Flow Characteristics

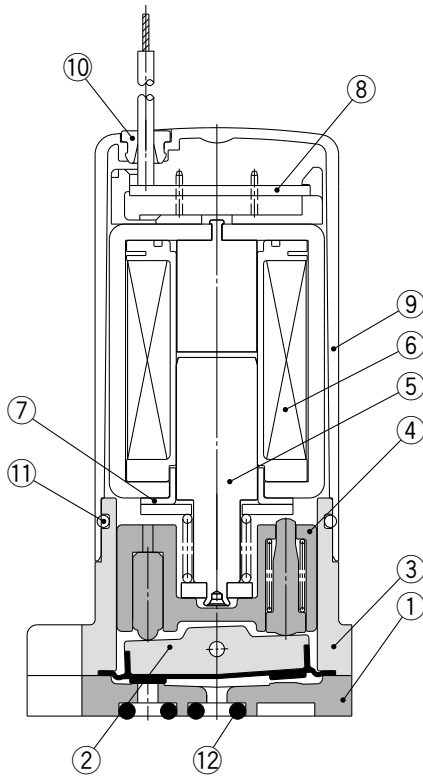
Water		Air	
Av	Cv	C	b
1.56 x 10 ⁻⁶	0.065	0.23	0.27

* The values of Av and Cv are based on JIS B 2005:1995, C and b are based on JIB B 8390:2000.

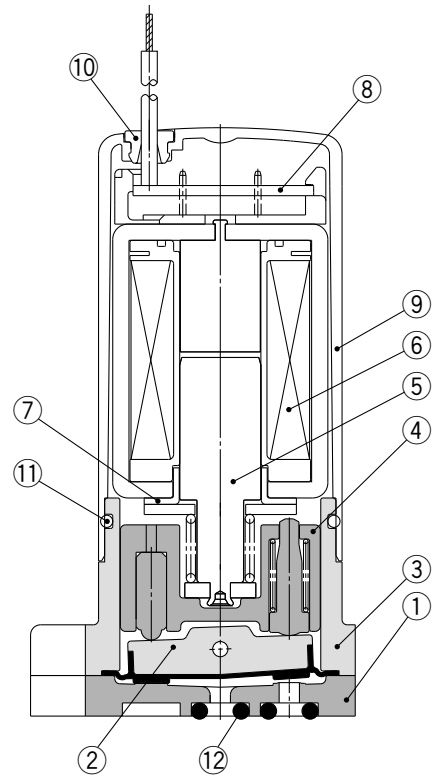
Series LVM20/200

Construction: Base Mounted

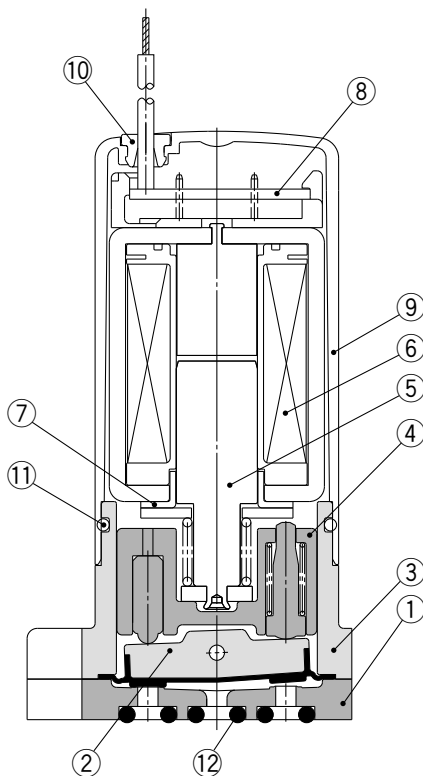
LVM20R3



LVM20R4



LVM205R



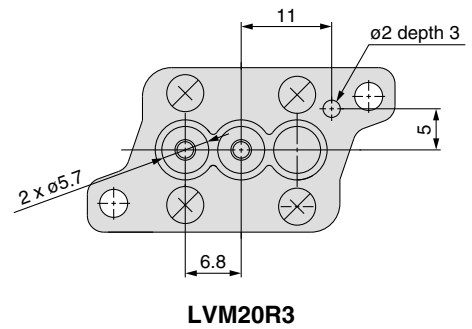
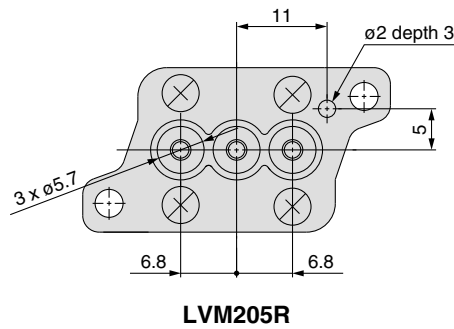
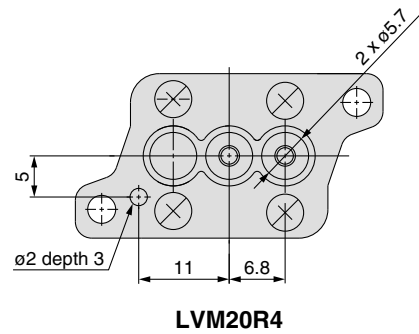
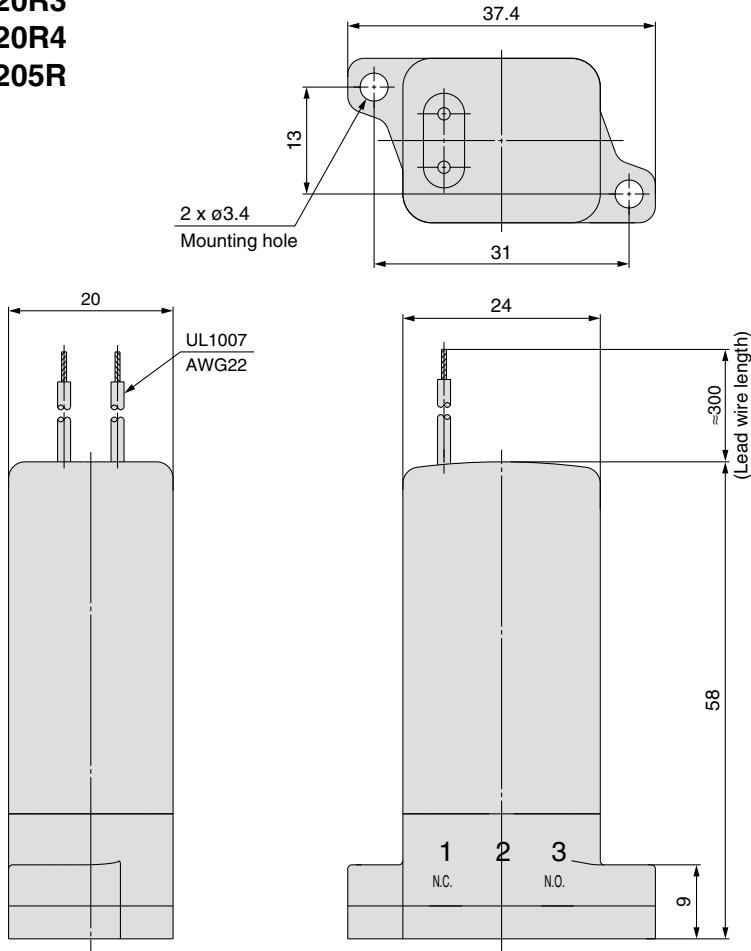
Component Parts: LVM20R3, 20R4, 205R

No.	Description	Material
1	Plate	PEEK
2	Diaphragm assembly	EPDM/FKM/Kalrez®
3	Body	PBT
4	Slide bushing assembly	PPS/Stainless steel
5	Armature assembly	—
6	Coil assembly	—
7	Sleeve	SUY
8	Board assembly	—
9	Casing	PBT
10	Plug	NBR
11	O-ring	NBR
12	O-ring	EPDM/FKM/Kalrez®

Compact Direct Operated 2/3 Port Solenoid Valve for Chemicals *Series LVM20/200*

Dimensions: Base Mounted

LVM20R3
LVM20R4
LVM205R



Recommended interface dimensions

