

# NAMUR Interface 5 Port Solenoid Valve

# VFN2000N Series



The interface surface complies with NAMUR.

- Can be directly installed on the industrial valve actuator that complies with NAMUR.

## How to Order

VFN2 1 20 N - 5 D Z - 02 F -

**Solenoid**

1	Single solenoid
2	Double solenoid

**Voltage**

1	100 VAC, 50/60 Hz
2	200 VAC, 50/60 Hz
3	110 to 120 VAC, 50/60 Hz
4	220 VAC, 50/60 Hz
5	24 VDC
6	12 VDC
7	240 VAC, 50/60 Hz

For other rated voltages, please contact SMC.

NAMUR Interface

**Electrical entry**

G	Grommet
E	Grommet terminal
T	Conduit terminal
D	DIN terminal
DO	DIN terminal (Without connector)
Y <sup>(Note)</sup>	DIN terminal (Without connector)
YQ <sup>(Note)</sup>	DIN terminal (Without connector)

(Note) Conforming to DIN 43650, Form B

**Thread type**

Nil	Rc (PT)
F	G (PF)
N	NPT

**Manual override**

Nil	Non-locking push type (Flush)
A	Non-locking push type (Extended)
B	Locking type (Tool required)

**Light/Surge voltage suppressor**

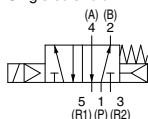
Nil	None
Z	With light/surge voltage suppressor
S <sup>(Note)</sup>	With surge voltage suppressor

(Note) Available for grommet type only.

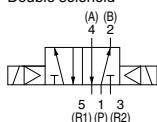


## Symbol

Single solenoid



Double solenoid



## Specifications

<b>Valve specifications</b>	<b>Valve construction</b>	Rubber seal
	<b>Fluid</b>	Air
	<b>Max. operating pressure</b>	0.9 MPa (130 psi)
	<b>Min. operating pressure</b>	0.15 MPa (22 psi)
	<b>Ambient and fluid temperature</b>	-10 to +60°C (Note 1)
	<b>Lubrication</b>	Not required (Note 2)
	<b>Pilot valve manual override</b>	Non-locking push type (Flush/Extended)/Locking type (Tool required)
	<b>Enclosure</b>	Dustproof
	<b>Port size</b>	1/4
	<b>Cv factor (Effective area)</b>	Refer to "Flow Rate Characteristics" table below.
<b>Electrical specifications</b>	<b>Weight</b>	Refer to "Weight" table below.
	<b>Other</b>	Cylinder ports should be NAMUR hole pattern.
	<b>Coil rated voltage</b>	12, 24 VDC, 100, 110 to 120, 200, 220, 240 VAC (50/60 Hz)
	<b>Allowable voltage fluctuation</b>	-15 to +10% of rated voltage
	<b>Coil insulation type</b>	Class B or equivalent
	<b>Apparent power AC (Power consumption)</b>	<b>Inrush</b> 5.0 VA/60 Hz, 5.6 VA/50 Hz
	<b>Power consumption DC</b>	<b>Holding</b> 2.3 VA (1.5 W)/60 Hz, 3.4 VA (2.1 W) 9/50 Hz
<b>Electrical entry</b>	1.8 W	
		Grommet, Grommet terminal, Conduit terminal, DIN terminal

Note 1) Use dry-air at low temperature.

Note 2) Use turbine oil No.1 (ISO VG32), if lubricated.

## Flow Rate Characteristics

		Flow rate characteristics					
		1→4/2 (P→A/B)			4/2→5/3 (A/B→EA/EB)		
		C	b	Cv	C	b	Cv
2-position	Single solenoid	3.48	0.25	0.85	4.57	0.17	1.06
	Double solenoid	3.48	0.25	0.85	4.57	0.17	1.06

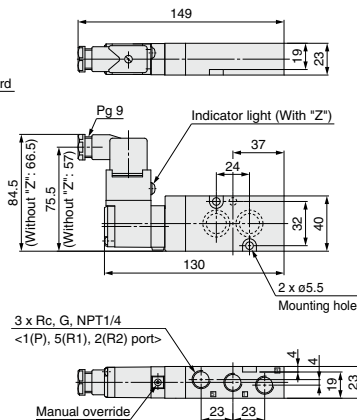
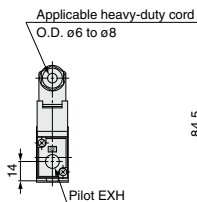
## Weight

Model	Weight (g)
VFN2120N-5D-02F	260
VFN2220N-5D-02F	400

**Dimensions**

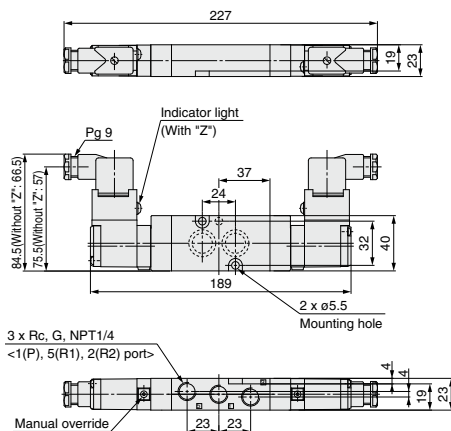
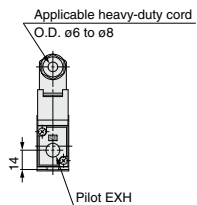
**DIN terminal**

VFN2120N-□<sup>D</sup>(Y)□□-02□-□



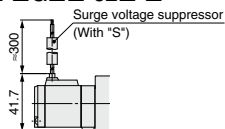
**DIN terminal**

VFN2220N-□<sup>D</sup>(Y)□□-02□-□



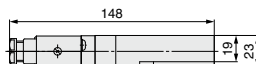
**Grommet**

VFN2120N-□G□□-02□-□



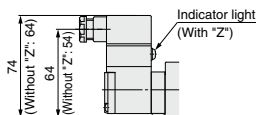
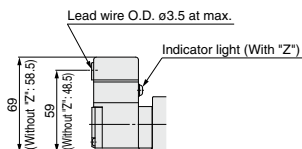
**Conduit terminal**

VFN2120N-□T□□-02□-□



**Grommet terminal**

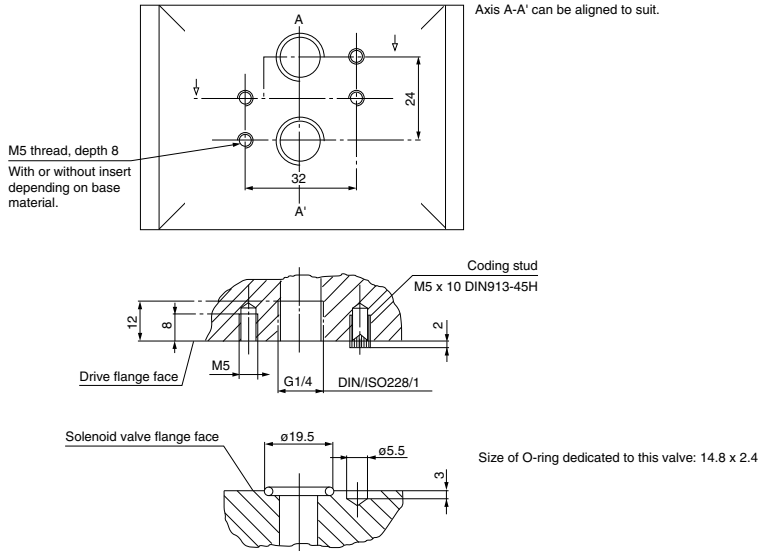
VFN2120N-□E□□-02□-□



IP
IW
1301
AW
IL1□
IL2□
IT
CP□
IS
<b>VFN</b>
IN-
T□

# VFN2000N Series

## NAMUR Mounting Pattern



The solenoid valve can be attached with 2 mounting bolts.  
 The positioning of the coding stud hole is left up to the manufacturer and thus also determines the location of the coding stud.

## How to Order Pilot Valve

SF4 - 5 D Z - 12 - X99 -

### Coil rated voltage

1	100 VAC, 50/60 Hz
2	200 VAC, 50/60 Hz
3	110 to 120 VAC, 50/60 Hz
4	220 VAC, 50/60 Hz
5	24 VDC
6	12 VDC
7	240 VAC, 50/60 Hz

For other rated voltages, please contact SMC.

### Electrical entry

G	Grommet
E	Grommet terminal
T	Conduit terminal
D	DIN terminal
DO	DIN terminal (Without connector)
Y <sup>Note)</sup>	DIN terminal
Y0 <sup>Note)</sup>	DIN terminal (Without connector)

Note) Conforming to DIN 43650, Form B

### CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

### Pilot valve assembly for VFN200N/VFN2000N

### Manual override

Nil	Non-locking push type (Flush)
A	Non-locking push type (Extended)
B	Locking type (Tool required)

### Light/Surge voltage suppressor

Nil	None
Z	With light/surge voltage suppressor
S <sup>Note)</sup>	With surge voltage suppressor

Note) Available for grommet type only.  
 Grommet type is available only with surge voltage suppressor, not with indicator light.