

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

NAMUR Interface

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 ^{Note)}	DIN terminal
YO ^{Note)}	DIN terminal (Without connector)

Note) Conforming to DIN 43650, Form B

Thread type

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

CE/UKCA marking

Nil	—
Q	CE/UKCA marked product

Manual override

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

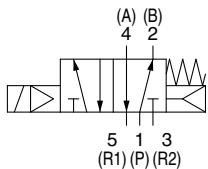
Light/Surge voltage suppressor

Nil	None
Z	With light/surge voltage suppressor
S ^{Note)}	With surge voltage suppressor

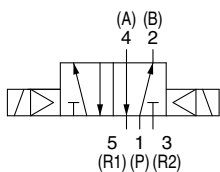
Note) Available for grommet type only.

Symbol

Single solenoid



Double solenoid



Specifications

Valve specifications	Valve construction	Rubber seal	
	Fluid	Air	
	Max. operating pressure	0.9 MPa (130 psi)	
	Min. operating pressure	0.15 MPa (22 psi)	
	Ambient and fluid temperature	-10 to +60°C ^{Note 1)}	
	Lubrication	Not required ^{Note 2)}	
	Pilot valve manual override	Non-locking push type (Flush/Extended)/Locking type (Tool required)	
	Enclosure	Dustproof	
	Port size	1/4	
	Cv factor (Effective area)	Refer to "Flow Rate Characteristics" table below.	
Weight	Refer to "Weight" table below.		
Other	Cylinder ports should be NAMUR hole pattern.		
Electrical specifications	Coil rated voltage	12, 24 VDC, 100, 110 to 120, 200, 220, 240 VAC (50/60 Hz)	
	Allowable voltage fluctuation	-15 to +10% of rated voltage	
	Coil insulation type	Class B or equivalent	
	Apparent power AC (Power consumption)	Inrush	5.0 VA/60 Hz, 5.6 VA/50 Hz
		Holding	2.3 VA (1.5 W)/60 Hz, 3.4 VA (2.1 W) 9/50 Hz
	Power consumption DC	1.8 W	
Electrical entry	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
VFN2120N-5D-02F	260
VFN2220N-5D-02F	400

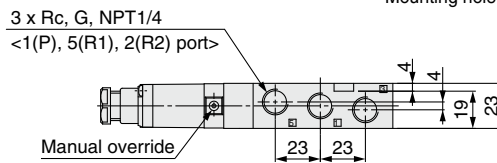
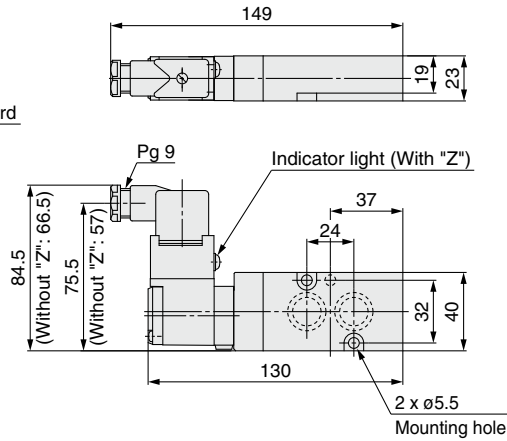
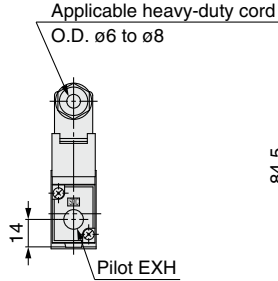
(g)

VFN2000N Series

Dimensions

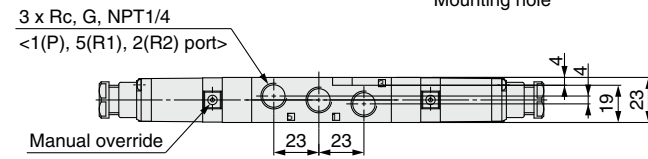
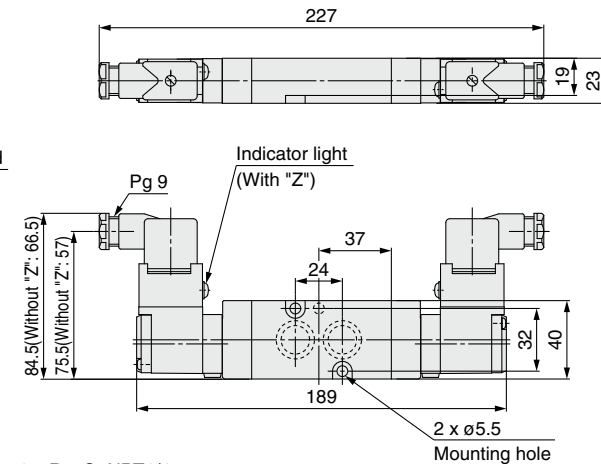
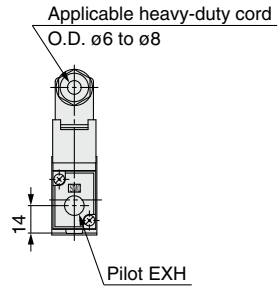
DIN terminal

VFN2120N-□^D_(Y)□□-02□-□



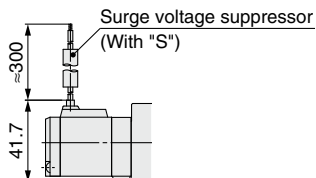
DIN terminal

VFN2220N-□^D_(Y)□□-02□-□



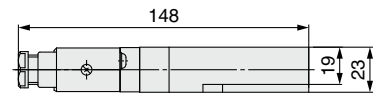
Grommet

VFN2120N-□G□□-02□-□



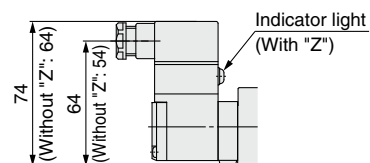
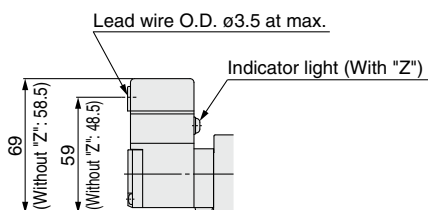
Conduit terminal

VFN2120N-□T□□-02□-□

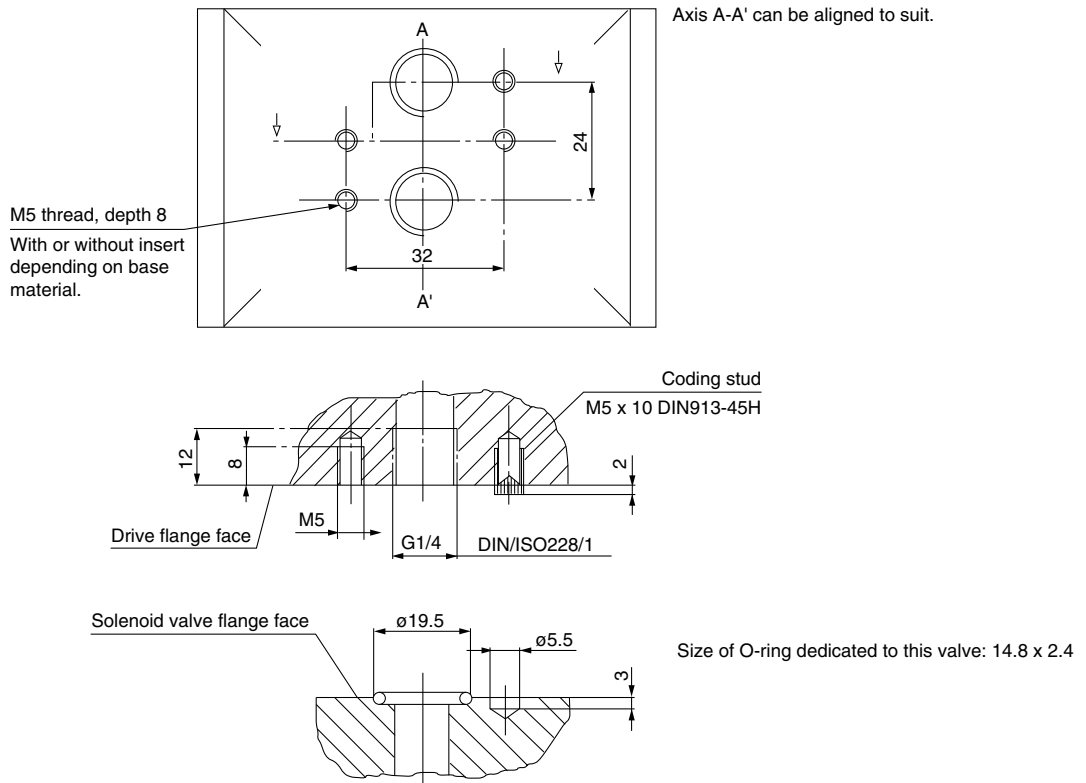


Grommet terminal

VFN2120N-□E□□-02□-□



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
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Electrical entry

G	Grommet
E	Grommet terminal
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D	DIN terminal
DO	DIN terminal (Without connector)
Y ^{Note)}	DIN terminal
Y0 ^{Note)}	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 ^{Note)}	With surge voltage suppressor

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