


Process Valve: 2 Port Valve For Compressed Air and Air-hydro Circuit Control **Series VNA**

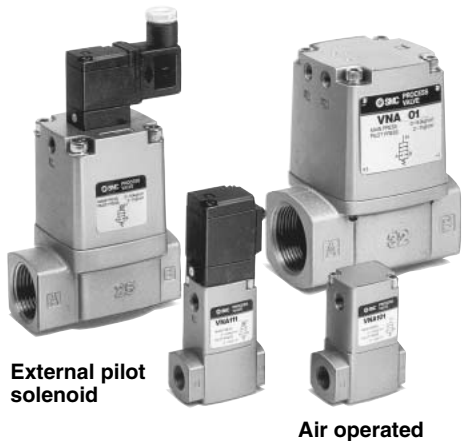
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Model

Model	Port size Rc	Orifice diameter ø (mm)	Flow characteristics				Mass (kg)	
			Measured by air		Measured by water ^{Note}		Air operated	External pilot solenoid
			C [dm ³ / (bar·sec)]	b	Cv	Av x 10 ⁻⁶ m ²		
VNA1□□□-6A	1/8	10	3.5	0.35	0.88	25	0.1	0.2
VNA1□□□-8A	1/4		5.9	0.24	1.5	41		
VNA1□□□-10A	3/8		7.9	0.16	1.9	51		
VNA2□□□-10A	1/2	15	16	0.35	3.8	110	0.3	0.4
VNA2□□□-15A			23	0.25	4.8	130		
VNA3□□□-20A	3/4	20	34	0.16	7.5	210	0.5	0.6


 Note) This product cannot be used for water application.

Model	Port size Rc	Orifice diameter ø (mm)	Flow characteristics		Mass (kg)	
			Cv	Effective area (mm) ²	Air operated	External pilot solenoid
VNA4□□□-25A	1	25	12	220	0.8	0.9
VNA5□□□-32A	1 1/4	32	18	320	1.3	1.4
VNA6□□□-40A	1 1/2	40	28	500	2.1	2.2
VNA7□□□-50A	2	50	43	770	3.1	3.2



Specifications

Fluid (Main piping)	Refer to "Table (1)" on page 358.	
Fluid temperature	VNA□□□ A	-5 to 60°C ^{Note 1)}
	VNA□□□ B	-5 to 99°C ^{Note 1)}
	□□□ C	(Air operated type only)
Ambient temperature	-5 to 50°C ^{Note 1)} (Air operated type: 60°C)	
Proof pressure	1.5 MPa	
Operating pressure range	0 to 1 MPa	
External pilot air	Pressure range	0.2 to 0.7 MPa
	Lubrication	Not required (Use turbine oil Class 1 ISO VG32, if lubricated. ^{Note 2)})
	Temperature	-5 to 50°C ^{Note 1)} (Air operated type: 60°C)
Mounting orientation	Unrestricted ^{Note 3)}	

 Note 1) No freezing
 Note 2) Lubrication is not allowed for use with EPR seal material.
 Note 3) For external pilot solenoid, it is recommended that the pilot solenoid valve be oriented either vertically upward or horizontally.

Pilot Solenoid Valve Specifications

Port size	6A to 25A	32A to 50A	32A to 50A (CE compliant)
Pilot solenoid valve	SF4-□□□-23	VO301-00□□□	VO307-00□□□z-Q
Electrical entry	Grommet, Grommet terminal, Conduit terminal, DIN terminal	Grommet, Conduit, DIN terminal, Other (Option)	DIN terminal
Coil rated voltage (V)	AC (50/60 Hz) DC	100 V, 200 V, Other voltage (Option) 24 V, Other voltage (Option)	
Allowable voltage fluctuation	-15% to +10% of rated voltage		
Temperature rise	35°C or less (When rated voltage is applied.)	70°C or less (When rated voltage is applied.)	50°C or less (When rated voltage is applied.)
Apparent power	AC	Inrush	5.6 VA (50 Hz), 5.0 VA (60 Hz)
		Holding	3.4 VA (50 Hz), 2.3 VA (60 Hz)
Power consumption	DC	1.8 W (without light), 2 W (with light)	
Manual override	Non-locking push type, Other (Option)		Non-locking push type

Note) For "How to Order" pilot solenoid valves, refer to page 363.

JIS Symbol

Style	Valve type	N.C.	N.O.	C.O.
		Normally closed	Normally open	Double acting
Air operated		VNA□01	VNA□02	VNA□03
External pilot solenoid		VNA□11	VNA□12	

VNA

VNB

SGC

VNC

VNH

VND

VCC

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Series VNA



[Option]
Note) CE compliant: For D or DZ only

How to Order

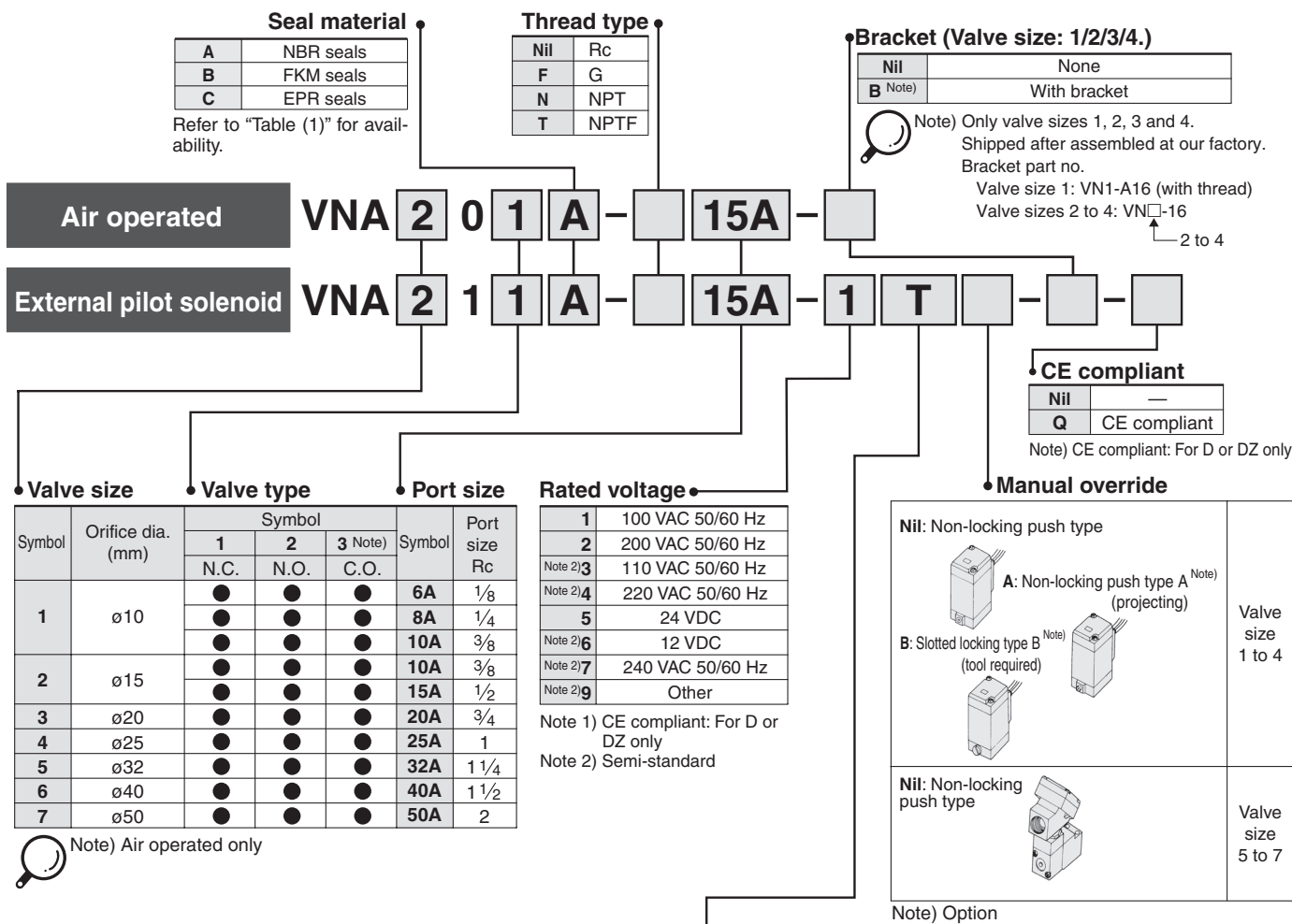


Table (1) Applicable Fluids

Model	VNA□□□A (Valve material: NBR seal)	VNA□□□B (Valve material: FKM seal)	VNA□□□C (Valve material: EPR seal)
Fluid	Air (Standard, Dry) Carbon dioxide (CO ₂) (Less than 0.7 MPa) Nitrogen gas (N ₂) Turbine oil, (Kinematic viscosity) Hydraulic fluid (40 to 100 mm ² /s)	Argon Helium Turbine oil, (Kinematic viscosity) Hydraulic fluid (40 to 100 mm ² /s)	Carbon dioxide (CO ₂) (0.7 MPa or more)

Caution

This product cannot be used for water application.



Note 1) Except rated voltage 6, 7, 9.

Note 2) For valve sizes 5 to 7 of the DZ DIN terminal with light/surge voltage suppressor, be sure to add suffix -X200 at the end of the part number. (For CE compliant product, -X200 is not required.) In this case, the pilot solenoid valve is VO307-□DZ.

Electrical entry/With light/surge voltage suppressor

Symbol	Electrical entry	Valve size
G	Grommet	Valve size 1 to 4
GS	Grommet with surge voltage suppressor	
E	Grommet terminal	
EZ	Grommet terminal with light/surge voltage suppressor	
T	Conduit terminal	Valve size 5 to 7
TZ	Conduit terminal with light/surge voltage suppressor	
D	DIN terminal	
DZ	DIN terminal with light/surge voltage suppressor	
G	Grommet	Valve size 1 to 4
GS	Grommet with surge voltage suppressor	
C	Conduit	
T	Conduit terminal	
TS	Conduit terminal with surge voltage suppressor	Note 2) Valve size 5 to 7
TZ (Note 1)	Conduit terminal with light/surge voltage suppressor	
TL (Note 1)	Conduit terminal with indicator light	
D	DIN terminal	
DL	DIN terminal with indicator light	Valve size 1 to 7
DZ	DIN terminal with light/surge voltage suppressor	

CE compliant

D	DIN terminal	Valve size 1 to 7
DZ	DIN terminal with light/surge voltage suppressor	