

Solenoid valves for various fluids used in a wide variety of

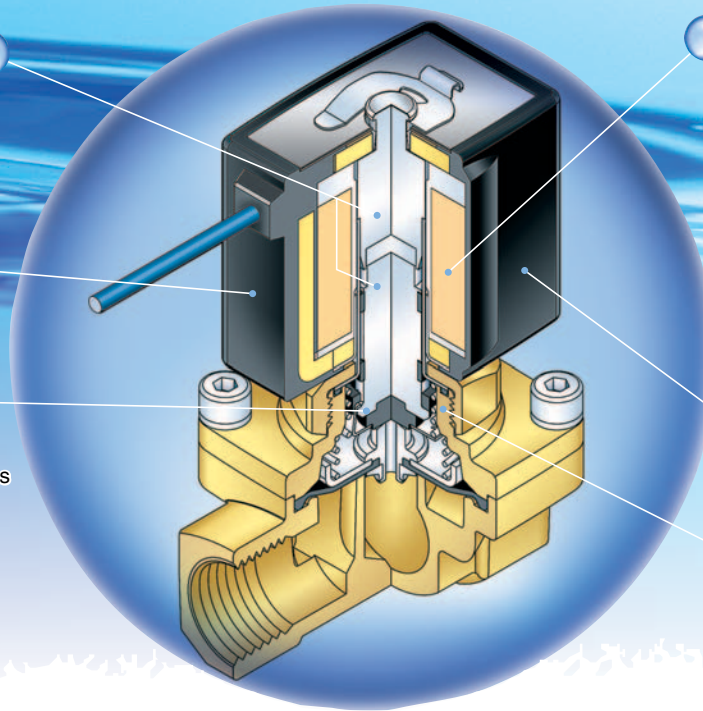
Improvement of corrosion resistance

Special magnetic material adopted

Enclosure: IP65

Low noise construction

Special construction enables to reduce the metal noise. (DC specification)



Reduction of power consumption (DC specification)

VXD21: 6 W

→ **4.5 W** (VXD2140 to 2150)

→ **5.5 W** (VXD2130)

VXD22: 8 W → **7 W**

VXD23: 11.5 W

→ **10.5 W**

Flame resistance UL94V-0 conformed

Flame resistant mold coil material

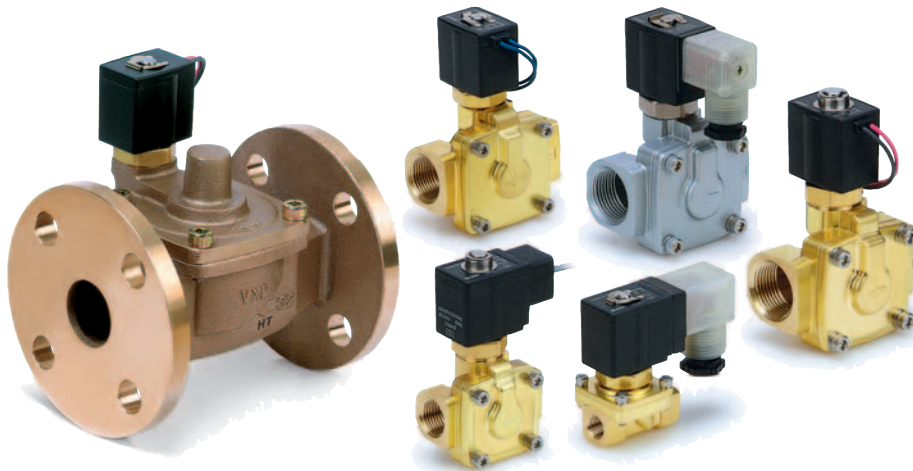
Improvement of maintenance performance

Maintenance is performed easily due to the threaded assembly.

Pilot Operated 3 Port Solenoid Valve

For Water, Oil, Air

New Series VXD21/22/23



Normally Closed (N.C.)

Solenoid valve (Port size)				Orifice size							Material		
Model		VXD21	VXD22	VXD23	3 (10 mm)	4 (15 mm)	5 (20 mm)	6 (25 mm)	7 (35 mm)	8 (40 mm)	9 (50 mm)	Body	Seal
Port no. (Port size)	Thread	02 (1/4)	—	—	●	—	—	—	—	—	—	Brass (C37) Stainless steel	NBR FKM EPDM
		03 (3/8)	—	—	●	●	—	—	—	—	—		
		04 (1/2)	—	—	●	●	—	—	—	—	—		
		06 (3/4)	—	—	—	—	●	—	—	—	—		
	Flange	—	10 (1)	—	—	—	—	●	—	—	—	CAC407	
		—	32 (32A)	—	—	—	—	—	●	—	—		
		—	—	40 (40A)	—	—	—	—	—	●	—		
		—	—	50 (50A)	—	—	—	—	—	—	●		

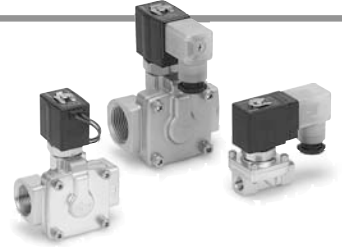
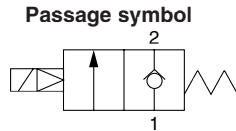
Normally Open (N.O.)

Solenoid valve (Port size)				Orifice size						Material		
Model		VXD21	VXD22	VXD23	4 (15 mm)	5 (20 mm)	6 (25 mm)	7 (35 mm)	8 (40 mm)	9 (50 mm)	Body	Seal
Port no. (Port size)	Thread	03 (3/8)	—	—	●	—	—	—	—	—	Brass (C37) Stainless steel	NBR FKM EPDM
		04 (1/2)	—	—	●	—	—	—	—	—		
		06 (3/4)	—	—	—	●	—	—	—	—		
	Flange	—	10 (1)	—	—	—	●	—	—	—	CAC407	
		—	32 (32A)	—	—	—	—	●	—	—		
		—	—	40 (40A)	—	—	—	—	●	—		
		—	—	50 (50A)	—	—	—	—	—	●		

For Water

Model/Valve Specifications

Normally closed (N.C.)



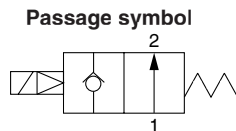
Port size		Orifice size (mmø)	Model	Min. operating pressure differential (MPa)	Max. operating pressure differential (MPa)		Flow characteristics		Max. system pressure (MPa)	^(Note) Weight (g)
					AC	DC	Av x 10 ⁻⁶ m ²	Cv converted		
Thread	1/4 (8A)	10	VXD2130-02	0.02	0.7	0.5	46	1.9	1.5	420
	3/8 (10A)	10	VXD2130-03				58	2.4		670
		15	VXD2140-03				110	4.5		
	1/2 (15A)	10	VXD2130-04		0.7	0.5	58	2.4		500
		15	VXD2140-04				130	5.5		670
	3/4 (20A)	20	VXD2150-06		1.0	1.0	230	9.5		1150
	1 (25A)	25	VXD2260-10				310	13		1650
Flange	32A	35	VXD2270-32	0.03			550	23	5400	
	40A	40	VXD2380-40		740	31			6800	
	50A	50	VXD2390-50		1200	49			8400	



Note) Weight of grommet type. Add 10 g for conduit, 30 g for DIN terminal, and 60 g for terminal type respectively.

• Refer to "Glossary of Terms" on front matter 10, for details on the max. operating pressure differential and the max. system pressure.

Normally open (N.O.)



Port size		Orifice size (mmø)	Model	Min. operating pressure differential (MPa)	Max. operating pressure differential (MPa)	Flow characteristics		Max. system pressure (MPa)	^(Note) Weight (g)	
					AC, DC	Av x 10 ⁻⁶ m ²	Cv converted			
Thread	3/8 (10A)	15	VXD2142-03	0.02	0.7	110	4.5	1.5	690	
	1/2 (15A)		VXD2142-04			130	5.5			
	3/4 (20A)	20	VXD2152-06			230	9.5			1170
	1 (25A)	25	VXD2262-10			310	13			1690
Flange	32A	35	VXD2272-32	0.03		550	23		5400	
	40A	40	VXD2382-40			740	31		6800	
	50A	50	VXD2392-50			1200	49		8400	



Note) Weight of grommet type. Add 10 g for conduit, 30 g for DIN terminal, and 60 g for terminal type respectively.

• Refer to "Glossary of Terms" on front matter 10, for details on the max. operating pressure differential and the max. system pressure.

Operating Fluid and Ambient Temperature

Power source	Operating fluid temperature (°C)		Ambient temperature (°C)
	Solenoid valve option		
	Nil, G, H	E, P	
AC	1 to 60	1 to 99	-10 to 60
DC	1 to 40	—	-10 to 40

Note 1) Since the AC/Class B coil (with a full-wave rectifier) uses a rectifying circuit, the fluid and ambient temperature are the same as the DC specifications.

Note 2) With no freezing

Tightness of Valve (Leakage Rate)

Seal material	Leakage rate (With water pressure)	
	1/4 to 1	32A to 50A
NBR, FKM, EPDM	0.2 cm ³ /min or less	1 cm ³ /min or less

Pilot Operated 2 Port Solenoid Valve Series VXD21/22/23

For Air/Single Unit

How to Order (Single Unit)

DC
AC/Class B coil (with a full-wave rectifier)
 * The AC (Class B) coil for VXD2130 comes with a full-wave rectifier.

Model • Refer to "Table (1)" shown below for availability
Orifice size • Refer to "Table (1)" shown below for availability
Valve/Body configuration •
Port size • Refer to "Table (1)" shown below for availability
Thread type • Refer to "Table (1)" shown below for availability
Solenoid valve option • Refer to "Table (2)" shown below for availability.
Suffix •
Rated voltage •
Electrical entry •
Bracket •
With a full-wave rectifier, surge voltage suppressor •
Electrical entry •
C-Conduit •
Connector •

Nil / **None**
B / **With bracket**
 * Bracket is not removable

Nil / **Rc**
T / **NPTF**
F / **G**
N / **NPT**

1 100 VAC 50/60 Hz
2 200 VAC 50/60 Hz
3 110 VAC 50/60 Hz
4 220 VAC 50/60 Hz
5 24 VDC
6 12 VDC
7 240 VAC 50/60 Hz
8 48 VAC 50/60 Hz
J 230 VAC 50/60 Hz

* Refer to "Table (3)" shown below for availability.

G - Grommet
GS - With grommet surge voltage suppressor
T - With conduit terminal
TS - With conduit terminal and surge voltage suppressor
TL - With conduit terminal and light
TZ - With conduit terminal, surge voltage suppressor and light
D - DIN
DS - DIN with surge voltage suppressor
DL - DIN with light
DZ - DIN with surge voltage suppressor and light
DO - For DIN (without connector)
 * DIN type is available with class B insulation only.

* Refer to "Table (3)" for the available combinations between each electrical option (S, L, Z, and rated voltage)
 * Option S, Z are not available since a surge voltage suppressor is integrated into the AC/Class B coil, as a standard

Table (1) Port/Orifice Size

Normally closed (N.C.)

Solenoid valve (Port size)				Orifice symbol							Material	
Model	VXD21	VXD22	VXD23	3 (10 mmø)	4 (15 mmø)	5 (20 mmø)	6 (25 mmø)	7 (35 mmø)	8 (40 mmø)	9 (50 mmø)	Body	Seal
Port no. (Port size)	Thread	02 (1/4)	—	—	●	—	—	—	—	—	Brass (C37), Stainless steel	NBR
		03 (3/8)	—	—	●	—	—	—	—	—		
		04 (1/2)	—	—	●	—	—	—	—	—		
		06 (3/4)	—	—	—	●	—	—	—	—		
	Flange	—	10 (1)	—	—	—	●	—	—	—	CAC407	
		—	32 (32A)	—	—	—	—	●	—	—		
		—	—	40 (40A)	—	—	—	—	●	—		
		—	—	50 (50A)	—	—	—	—	—	●		

Normally open (N.O.)

Solenoid valve (Port size)				Orifice symbol						Material	
Model	VXD21	VXD22	VXD23	4 (15 mmø)	5 (20 mmø)	6 (25 mmø)	7 (35 mmø)	8 (40 mmø)	9 (50 mmø)	Body	Seal
Port no. (Port size)	Thread	03 (3/8)	—	—	●	—	—	—	—	Brass (C37), Stainless steel	NBR
		04 (1/2)	—	—	●	—	—	—	—		
		06 (3/4)	—	—	●	—	—	—	—		
		—	10 (1)	—	—	●	—	—	—		
	Flange	—	32 (32A)	—	—	—	●	—	—	CAC407	
		—	—	40 (40A)	—	—	—	●	—		
		—	—	50 (50A)	—	—	—	—	●		

Table (2) Solenoid Valve Option

Option symbol	Seal material	Body material/ Shading coil material	Coil insulation type	Note
Nil	NBR	Brass (C37), Cu	B	—
G		Stainless steel, Ag		

Table (3) Rated Voltage Electrical Option

Rated voltage			Class B			Class H		
AC/DC	Voltage symbol	Voltage	With surge voltage suppressor	With light	With light and surge voltage suppressor	With surge voltage suppressor	With light	With light and surge voltage suppressor
AC	1	100 V	●	●	●	●	●	●
	2	200 V	●	●	●	●	●	●
	3	110 V	●	●	●	●	●	●
	4	220 V	●	●	●	●	●	●
	7	240 V	●	—	—	●	—	—
	8	48 V	●	—	—	●	—	—
DC	J	230 V	●	—	—	●	—	—
	5	24 V	●	●	●	DC specification is not available.		
	6	12 V	●	—	—			

Note: Option S, Z are not available as surge voltage suppressor is integrated into the AC/Class B coil as a standard