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Pulse Valve Valve for Dust Collector

Excludes the air operated type
(For details, refer to pages 7 and 17.)

Solenoid Valve Type | **SMARTVENT Type** | **Air Operated Type**

RoHS

New **A SMARTVENT type has been added.** p. 17

The integrated control board eliminates the need for a control box.



IP67/IP65
For details, refer to page 4.

Air

ATEX Compliant

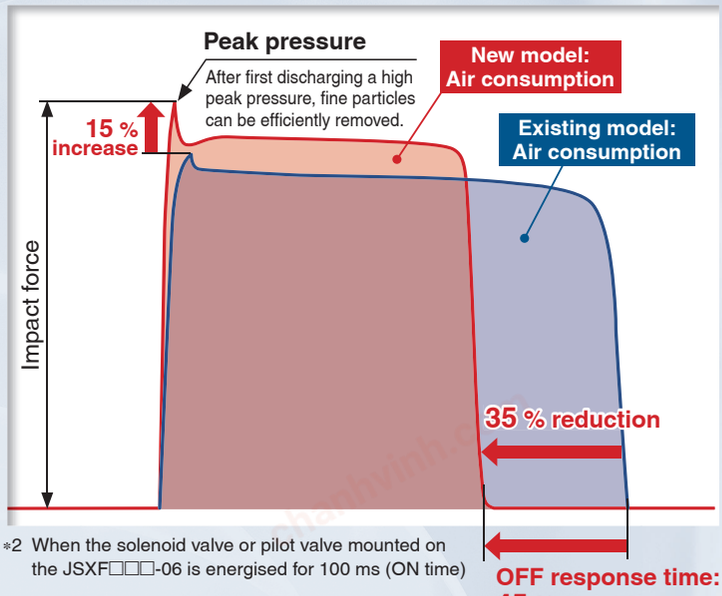
56-JSXF Series p. 35
55-JSXFA Series p. 37

10 million cycles*1 or more

*1 Based on SMC's specific testing conditions (JSXF□□□-06)

High peak pressure and low air consumption

Peak pressure	**15 %*2 increase**
Air consumption	**35 %*2 reduction**



*2 When the solenoid valve or pilot valve mounted on the JSXF□□□-06 is energised for 100 ms (ON time)

Fluid temperature: –40 to 60 °C

Can be used in a wide range of temperatures

Variations

Type		Port size				Orifice diameter [mm]				
		3/4 (20A)	1 (25A)	1 1/2 (40A)	2 (50A)	Ø 32	Ø 40	Ø 45	Ø 50	Ø 55
Solenoid valve type **JSXF Series** p. 7	Compression fitting type	●	●	●	●	●	●		●	
	Direct piping type	●	●	●	●	●	●		●	
	Immersion type	●	●	●	●	●	●		●	●
New SMARTVENT type **JSXF-P□ Series** p. 17	Compression fitting type	●	●	●	●	●	●		●	
	Direct piping type	●	●	●	●	●	●		●	
	Immersion type	●	●	●	●	●	●		●	●
Air operated type **JSXFA Series** p. 21	Compression fitting type	●	●	●	●	●	●	●	●	
	Direct piping type	●	●	●	●	●	●	●	●	
	Immersion type	●	●	●	●	●	●	●	●	●

JSXF/JSXFA Series

SMC

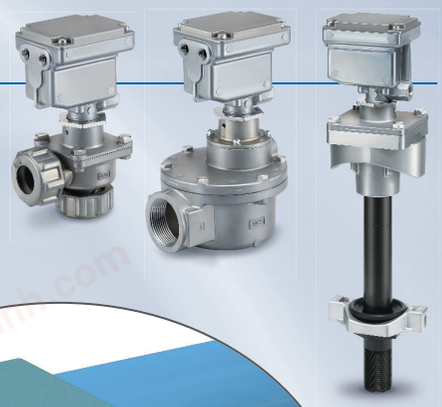
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Pulse Valve Valve for Dust Collector *JSXF/JSXFA Series*

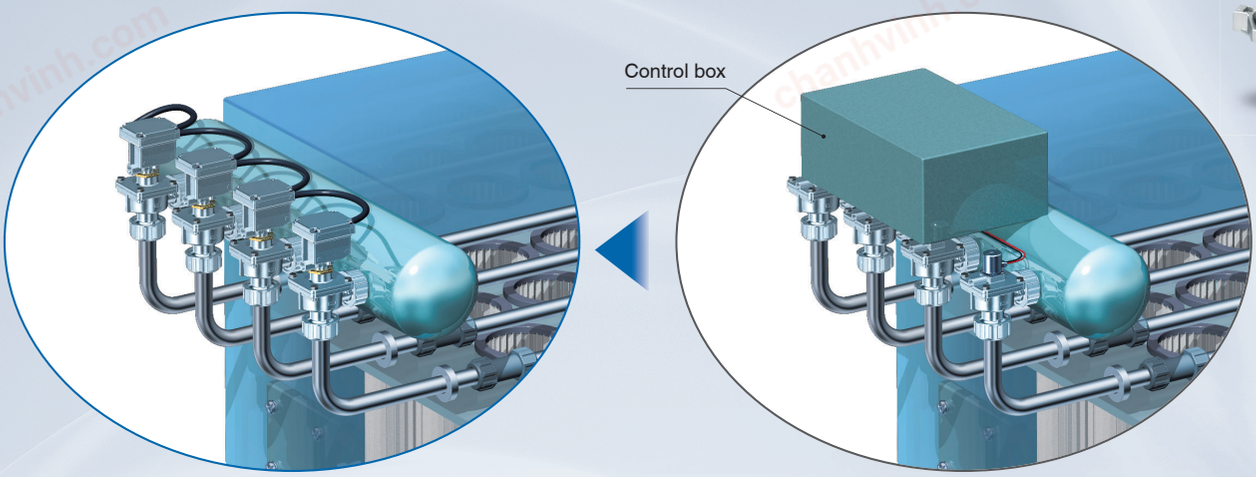
Solenoid Valve Type | SMARTVENT Type | Air Operated Type

New SMARTVENT Type

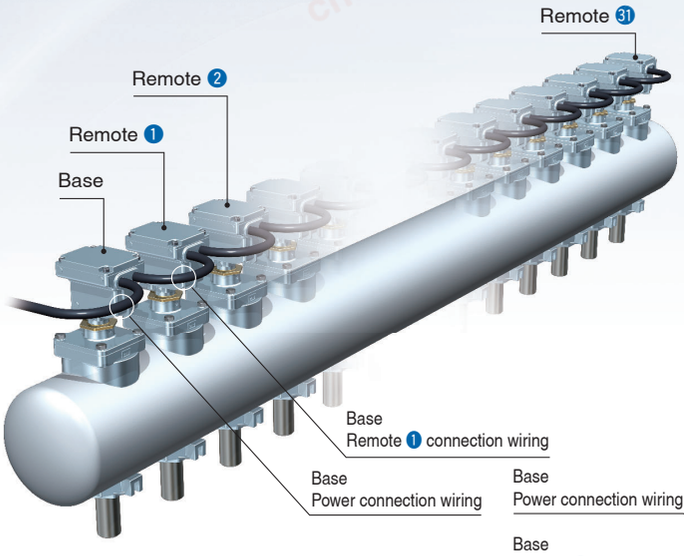


No control box required
Allows for reduced wiring

The solenoid valve type features a built-in control board.



A single base valve can control up to max. 31 remote valves!

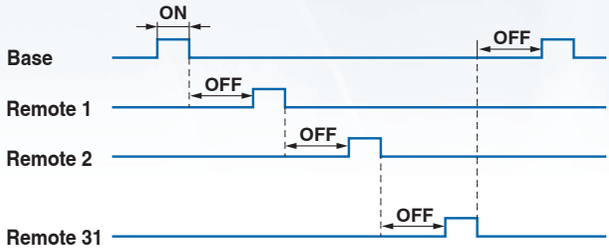


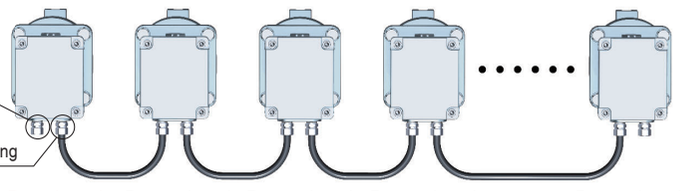
The pulse sequence order can be changed.

The base valve collectively controls the response time.

ON time: 10-step setting is possible (Setting range: 100 to 234 ms)
OFF time: 16-step setting is possible (Setting range: 4 to 29 s)

Operating sequence example





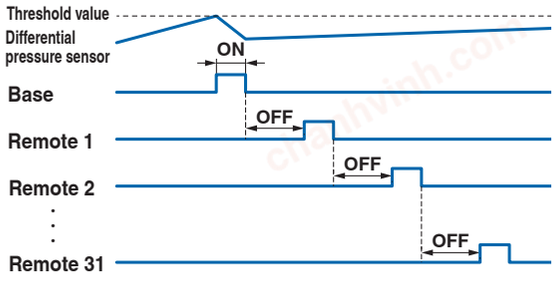
Base board | Remote board | Remote board | Remote board | Remote board

Daisy chain connection x 31 units

Filter clogging can be detected when used in combination with a differential pressure sensor (provided by the customer).

Differential pressure sensor installation

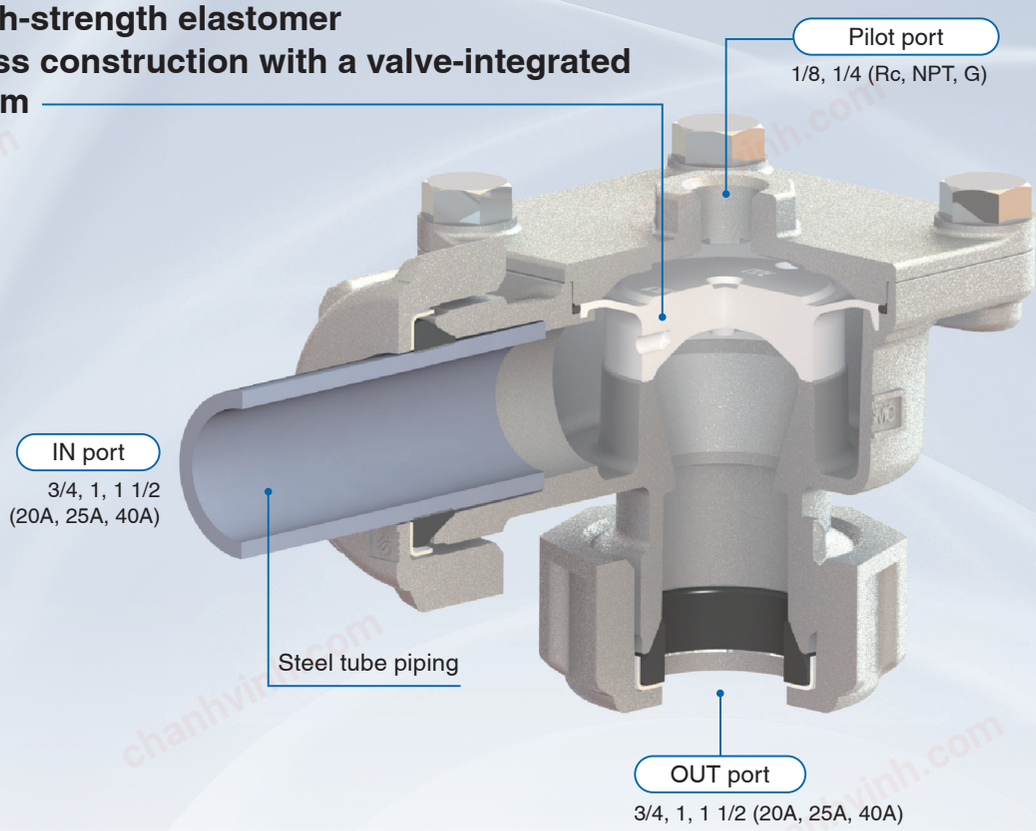
Operation sequence diagram



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Long service life: 10 million cycles*1 or more

Uses high-strength elastomer
Springless construction with a valve-integrated diaphragm



OFF response time: 45 %*1, *2 reduction

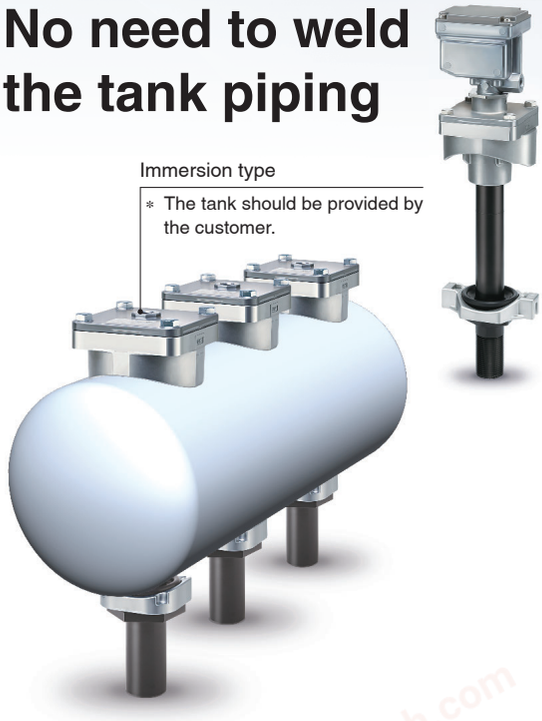
Easier maintenance

The springless diaphragm allows for easy maintenance of the valve. A main valve and sub-valve (for 40A) are included in the maintenance kit.

Flow rate characteristics: 40 %*1, *2 increase

Optimal design for the internal geometry

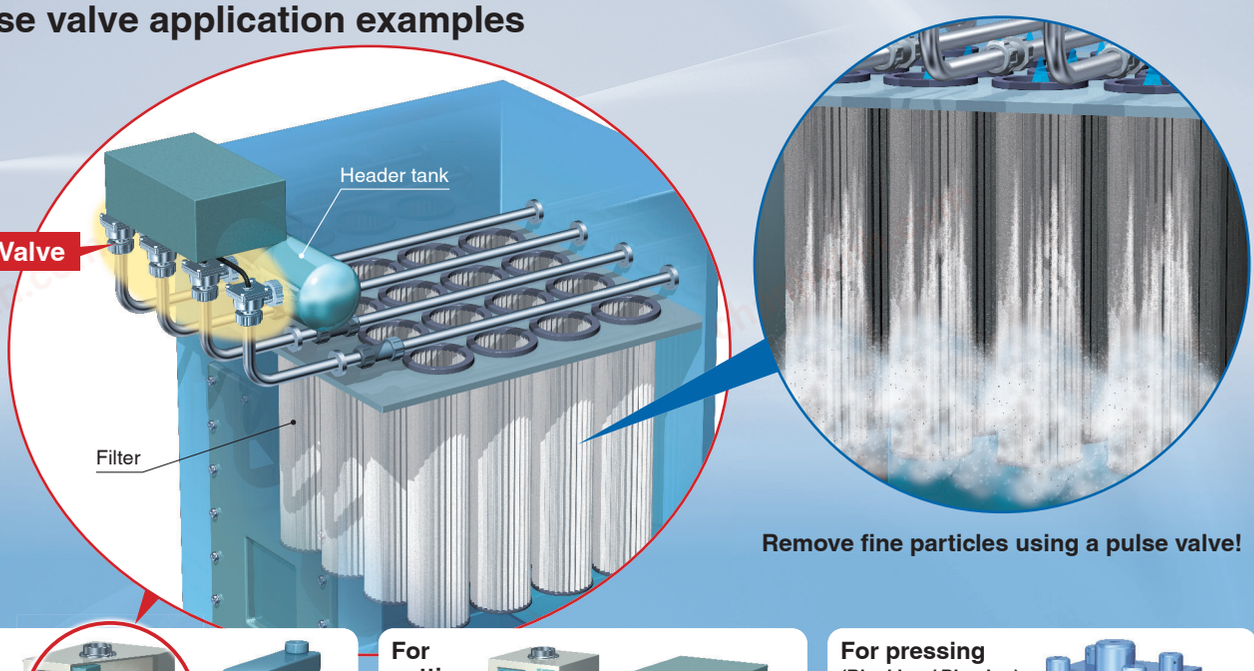
No need to weld the tank piping



*1 Based on SMC's specific testing conditions (JSXFA-06, Pilot valve orifice of Ø 5 mm or larger, Excludes made-to-order option "A")
*2 Compared with the existing SMC model

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Pulse valve application examples

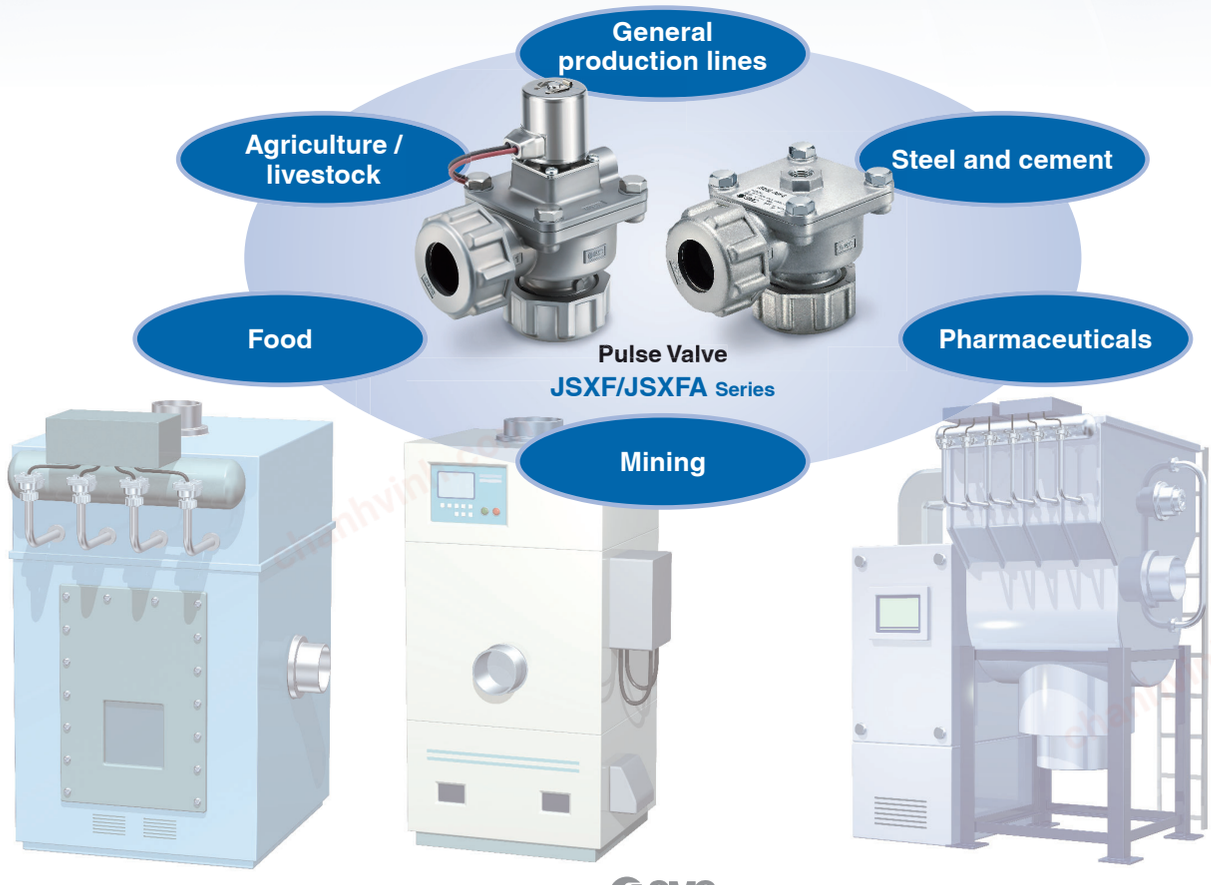








Pulse blow can be used in various industries!



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Series Variations

Solenoid Valve Type p. 7

1 (IN) 2 (OUT)

Piping	Port size	Orifice diameter (Ø 32 / Ø 40 / Ø 45 / Ø 50 / Ø 55)	Thread type	Options/ Made to order	Standards (CE *1, UKCA *1, ATEX compliant)	Enclosure (IP67, IP65, NEMA4)
Compression fitting type  **(56-)JSXFE Series**	3/4 (20A)	Ø 32	Rc NPT G	Options · Silencer (3/4, 1, 1 1/2, 2) p. 15 · Cable for M12 connector (1000, 2000, 5000 mm) p. 16 Made to order · Tank hole dia.: Ø 76 (1 1/2 6-inch tank) p. 33	● ● ● p. 35	● ● *2
	1 (25A)	Ø 40			● ● ● p. 35	● ● *2
	1 1/2 (40A)	Ø 50			● ● ● p. 35	● ● *2
Direct piping type  **(56-)JSXFF Series**	3/4 (20A)	Ø 32			● ● ● p. 35	● ● *2
	1 (25A)	Ø 40			● ● ● p. 35	● ● *2
	1 1/2 (40A)	Ø 50			● ● ● p. 35	● ● *2
Immersion type  **(56-)JSXFH Series**	3/4 (20A) Tank size: 4, 5 inch	Ø 32			● ● ● p. 35	● ● *2
	1 (25A) Tank size: 5, 6 inch	Ø 40			● ● ● p. 35	● ● *2
	1 1/2 (40A) Tank size: 6, 8 inch	Ø 45			● ● ● p. 35	● ● *2
	2 (50A) Tank size: 8, 10 inch	Ø 55			● ● ● p. 35	● ● *2

*1 Differs depending on the voltage and electrical entry. For details, refer to page 7. *2 Only the DIN connector

SMARTVENT Type p. 17

1 (IN) 2 (OUT)

Piping	Port size	Orifice diameter (Ø 32 / Ø 40 / Ø 45 / Ø 50 / Ø 55)	Thread type	Option/ Made to order	Standards	Enclosure
Compression fitting type  **JSXFE Series**	3/4 (20A)	Ø 32	Rc NPT G	Option · Silencer (3/4, 1, 1 1/2, 2) p. 20 Made to order · Tank hole dia.: Ø 76 (1 1/2 6-inch tank) p. 33	● ●	● ●
	1 (25A)	Ø 40			● ●	● ●
	1 1/2 (40A)	Ø 50			● ●	● ●
Direct piping type  **JSXFF Series**	3/4 (20A)	Ø 32			● ●	● ●
	1 (25A)	Ø 40			● ●	● ●
	1 1/2 (40A)	Ø 50			● ●	● ●
Immersion type  **JSXFH Series**	3/4 (20A) Tank size: 4, 5 inch	Ø 32			● ●	● ●
	1 (25A) Tank size: 5, 6 inch	Ø 40			● ●	● ●
	1 1/2 (40A) Tank size: 6, 8 inch	Ø 45			● ●	● ●
	2 (50A) Tank size: 8, 10 inch	Ø 55			● ●	● ●

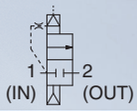
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Pulse Valve Valve for Dust Collector *JSXF/JSXFA Series*

Solenoid Valve Type | SMARTVENT Type | Air Operated Type

Series Variations

Air Operated Type p. 21



Piping	Port size	Orifice diameter (Ø 32 / Ø 40 / Ø 45 / Ø 50 / Ø 55)	Thread type	Options/ Made to order	Standards (CE, UKCA, ATEX compliant)	Enclosure (IP67, IP65, NEMA4)
Compression fitting type  **(55-)JSXFAE Series**	3/4 (20A)	Ø 32	Rc NPT G	Option · Silencer (1 1/2, 2) p. 31 Made to order · Tank hole dia.: Ø 76 (1 1/2 6-inch tank) p. 33 · Special pilot valve orifice diameter (3/4, 1) p. 21	● p. 37	
	1 (25A)	Ø 40			● p. 37	
	1 1/2 (40A)	Ø 50			● p. 37	
Direct piping type  **(55-)JSXFAF Series**	3/4 (20A)	Ø 32			● p. 37	
	1 (25A)	Ø 40			● p. 37	
	1 1/2 (40A)	Ø 50			● p. 37	
Immersion type  **(55-)JSXFAH Series**	3/4 (20A) Tank size: 4, 5 inch	Ø 32			● p. 37	
	1 (25A) Tank size: 5, 6 inch	Ø 40			● p. 37	
	1 1/2 (40A) Tank size: 6, 8 inch	Ø 45			● p. 37	
	2 (50A) Tank size: 8, 10 inch	Ø 55			● p. 37	

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CONTENTS

Pulse Valve **Valve for Dust Collector**



Compression fitting type



Direct piping type



Immersion type



Compression fitting type



Direct piping type



Immersion type



Compression fitting type



Direct piping type



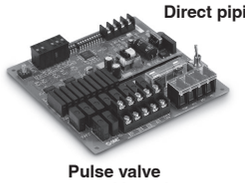
Immersion type



Compression fitting type



Direct piping type



Pulse valve control board

- **Solenoid Valve Type JSXF Series**
  - How to Order ····· p. 7
  - Specifications ····· p. 8
  - Construction ····· p. 9
  - Dimensions ····· p. 11
  - Replacement Parts ····· p. 15
  - Option ····· p. 16
- **SMARTVENT Type JSXF-P□ Series**
  - How to Order ····· p. 17
  - Specifications ····· p. 18
  - Construction ····· p. 18
  - Dimensions ····· p. 19
  - Replacement Parts ····· p. 20
- **Air Operated Type JSXFA Series**
  - How to Order ····· p. 21
  - Specifications ····· p. 22
  - Construction ····· p. 23
  - Dimensions ····· p. 25
  - Replacement Parts ····· p. 31

Working Principle ····· p. 32
Immersion Type: Made to Order ····· p. 33
ATEX Compliant Solenoid Valve Type **56-JSXF Series** ····· p. 35
ATEX Compliant Air Operated Type **55-JSXFA Series** ····· p. 37
Dedicated Controller for Operation **VXFC Series** ····· p. 38
Glossary of Terms ····· p. 40
Specific Product Precautions ····· p. 41

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Pulse Valve Valve for Dust Collector

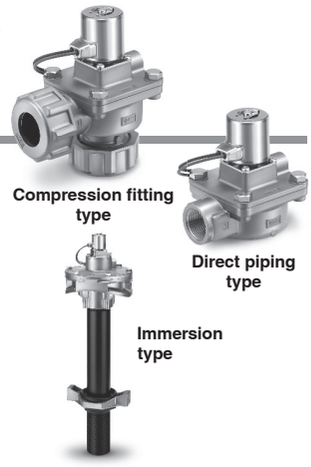
Solenoid Valve Type

JSXF Series

Differs depending on the voltage and electrical entry

RoHS

SMARTVENT Type ▸ p. 17
Air Operated Type ▸ p. 21



How to Order

Compression	JSXF	☐	E	–	06	R	–	5	CS	B	– S
Direct Piping	JSXF	☐	F	–	06	R	–	5	CS	B	– S
Immersion	JSXF	☐	H	4	– 06	R	1	– 5	CS	B	– S
		❶	❷	❸	❹	❺	❻	❼	❽	❾	❿

❶ Valve type

—	Solenoid valve

❷ Piping

E	Compression fitting type*1	
F	Direct piping type	
H	Immersion type*2	

*1 Seals and washers are included.
*2 The valve and pipe do not come assembled.

❸ Tank size (JSXFH only)

4	4 inch
5	5 inch
6	6 inch
8	8 inch
10	10 inch

❹ Port size*1

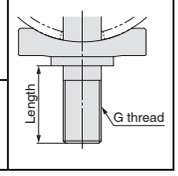
06	3/4 (20A)
10	1 (25A)
14	1 1/2 (40A)
20*2	2 (50A)

*1 For port size selection, refer to the "Variations for Port Size and Option" table below.
*2 Port size 20 is only available for the JSXFH.

❺ Thread type

R	Rc
N	NPT
F	G

❻ OUT port piping configuration (JSXFH only)

Symbol	Length	G thread	Appearance
1	Short	None	
2	Long		
3	Short	Yes	
4	Long		

❼ Rated voltage

AC

Symbol	Rated voltage
1	100 VAC
2	200 VAC
3	120 VAC (110 VAC)
4	220 VAC
7	240 VAC
J	230 VAC

DC

Symbol	Rated voltage
5	24 VDC

❽ Electrical entry

Symbol	Electrical entry		CE/UKCA-compliant
G	Grommet*1		24 VDC
GS	Grommet with PCB (With surge voltage suppressor)		100 VAC 24 VDC
CS	Conduit (With surge voltage suppressor)		All voltages
DS	DIN terminal (With surge voltage suppressor)		All voltages
DZ	DIN terminal with light (With surge voltage suppressor)		All voltages
DN	DIN terminal without connector (With surge voltage suppressor)		All voltages
WN	M12 connector*2 (With surge voltage suppressor)		All voltages

*1 Only 24 VDC can be selected for the rated voltage.
*2 A cable for the M12 connector is not included with the product. Refer to "Option" on page 16 to order it separately.

❾ Fluid and ambient temperatures

B	–40 to 60 °C

❿ Silencer

—	Without
S	With

Shipped together with the product
Refer to "Replacement Parts" on page 15.

Made to Order

Tank hole dia.: Ø 76 (Port size 14, 6-inch tank)	p. 33

Variations for Port Size and Option

Model	Tank size	Port size			
		06	10	14	20
JSXFE	—	●	●	●	—
JSXFF	—	●	●	●	—
JSXFH	4 inch	●	—	—	—
	5 inch	●	●	—	—
	6 inch	—	●	●	—
	8 inch	—	—	●	●
	10 inch	—	—	—	●
Silencer		●	●	●	●

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Specifications

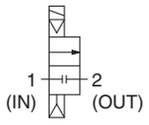
Common Specifications

Valve specifications	Valve construction		Pilot operated diaphragm
	Valve type		Normally closed (N.C.)
	Fluid		Air
	Withstand pressure [MPa]		1.5
	Min. operating pressure differential [MPa]		0.1
	Max. operating pressure differential [MPa]		0.9
	Max. system pressure [MPa]		0.9
	Fluid temperature [°C]		–40*1 to 60
	Ambient temperature [°C]		–40 to 60
	Enclosure		IP67 (IP65 for the DIN connector)*2
	Standards*3		CE/UKCA
Coil specifications	Allowable voltage fluctuation		±10 % of the rated voltage
	Allowable leakage voltage	AC	5 % or less of the rated voltage
		DC	2 % or less of the rated voltage
	Apparent power*4, *5	AC	18 VA
	Power consumption*4	DC	12 W

∗1 No condensation
∗2 If water enters the product, it may result in operation failure or breakage. Therefore, take appropriate measures to prevent water from entering the product when used in an environment where it is constantly exposed to water.
∗3 Conformance to standards varies depending on the model. For details, refer to page 7.
∗4 Power consumption/Apparent power: The value at an ambient temperature of 20 °C and when the rated voltage is applied (Variation: ±10 %)
∗5 There is no difference in the frequency and the inrush and energised apparent power, since a rectifying circuit is used in the AC.

Be sure to read "Specific Product Precautions" before handling.

Symbol





JSXFE Series

Individual Specifications: Compression Fitting Type / Direct Piping Type

Series		JSXFE/F		
		06	10	14
Orifice diameter [mm]		Ø 32	Ø 40	Ø 50
Port size		3/4	1	1 1/2
Weight*1 [g]	Compression	740	1,230	2,100
	Direct piping	560	820	1,480



JSXFF Series

∗1 Indicates case of grommet type
Add 20 g for grommet with PCB, 70 g for conduit, 50 g for DIN terminal, and 15 g for M12 connector.

Individual Specifications: Immersion Type

Series			JSXFH							
			06		10		14		20	
Orifice diameter [mm]			Ø 32		Ø 40		Ø 45		Ø 55	
Port size			3/4		1		1 1/2		2	
Tank size		ANSI	4	5	5	6	6	8	8	10
Weight*1 [g]	Piping configuration	1	1,380	1,390	2,050	2,110	2,960	3,080	4,670	4,840
		2	1,410	1,430	2,100	2,210	3,120	3,310	4,990	5,150
		3	1,380	1,390	2,050	2,110	2,960	3,080	4,670	4,840
		4	1,410	1,430	2,100	2,210	3,120	3,310	4,990	5,150



JSXFH Series

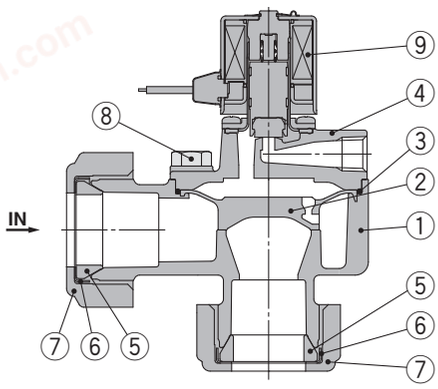
∗1 Indicates case of grommet type
Add 20 g for grommet with PCB, 70 g for conduit, 50 g for DIN terminal, and 15 g for M12 connector.

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Construction

JSXFE/Compression Fitting Type

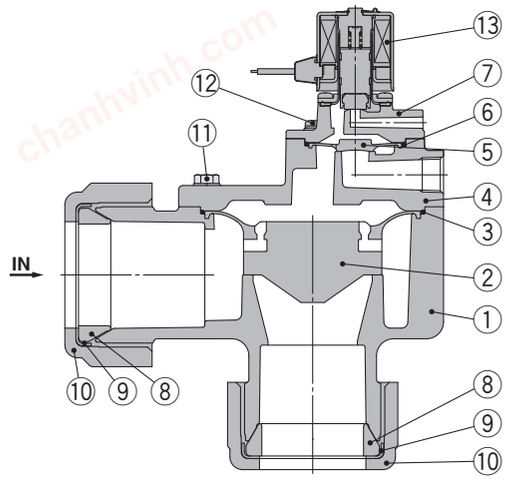
Port sizes 06, 10



Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Seal**	NBR
6	**Washer**	Fe (Chromating)
7	**Compression nut**	ADC
8	**Hexagon bolt**	Stainless steel
9	**Pilot valve**	—

Port size 14



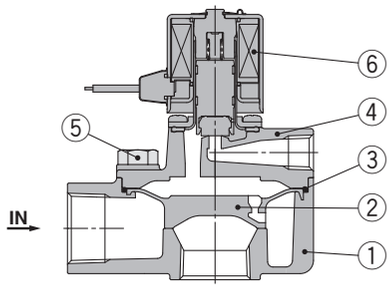
Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Sub-valve**	Resin
6	**O-ring**	NBR
7	**Bonnet**	ADC

No.	Description	Material
8	**Seal**	NBR
9	**Washer**	Fe (Chromating)
10	**Compression nut**	ADC
11	**Hexagon bolt**	Stainless steel
12	**Cross recessed round head screw**	Stainless steel
13	**Pilot valve**	—

JSXFF/Direct Piping Type

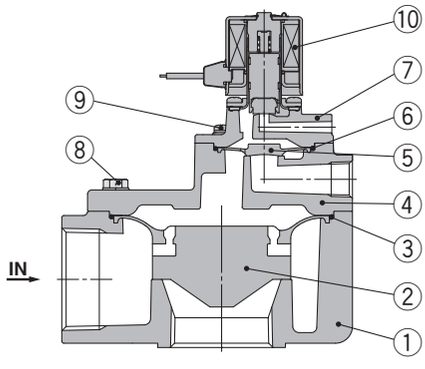
Port sizes 06, 10



Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Hexagon bolt**	Stainless steel
6	**Pilot valve**	—

Port size 14



Component Parts

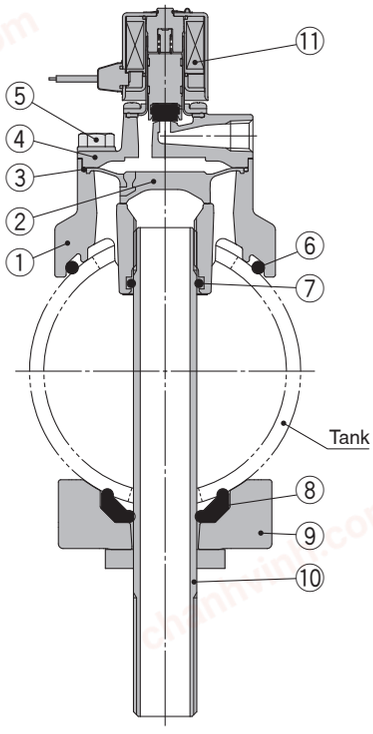
No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Sub-valve**	Resin
6	**O-ring**	NBR
7	**Bonnet**	ADC
8	**Hexagon bolt**	Stainless steel
9	**Cross recessed round head screw**	Stainless steel
10	**Pilot valve**	—

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Construction

JSXFH/Immersion Type

Port sizes 06, 10

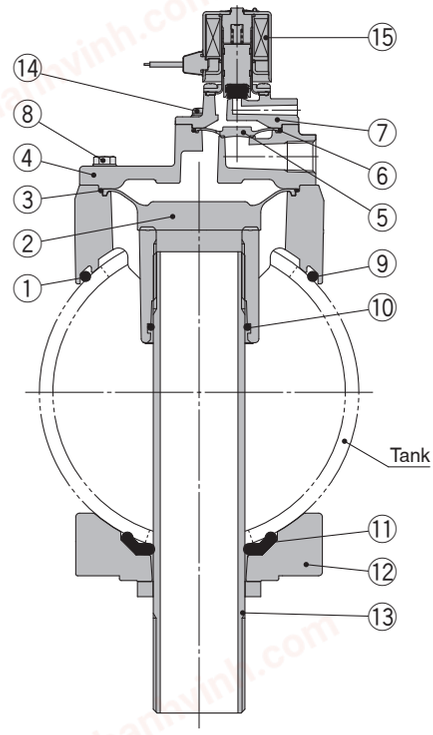


∗ The tank should be provided by the customer.

Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Hexagon bolt**	Stainless steel
6	**O-ring**	NBR
7	**O-ring**	NBR
8	**Gasket**	NBR
9	**Bottom support**	ADC
10	**Outlet pipe assembly**	STKM + SS400
11	**Pilot valve**	—

Port sizes 14, 20



∗ The tank should be provided by the customer.

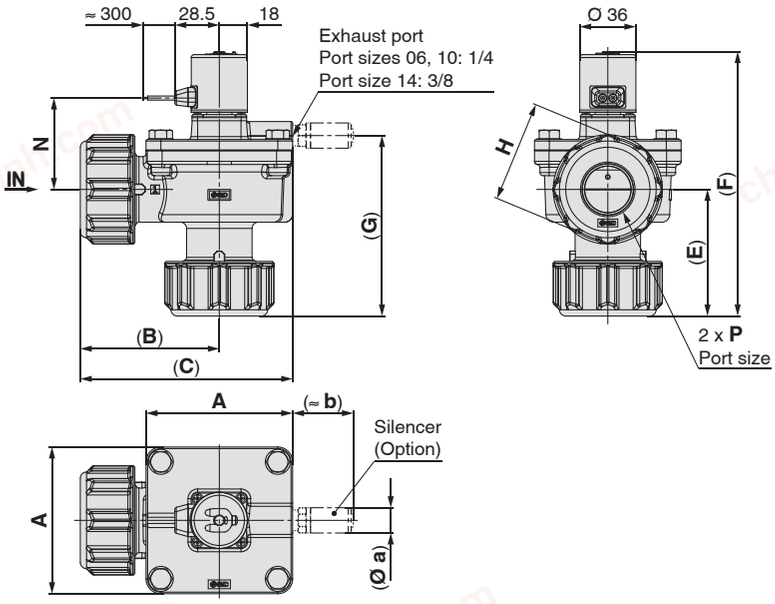
Component Parts

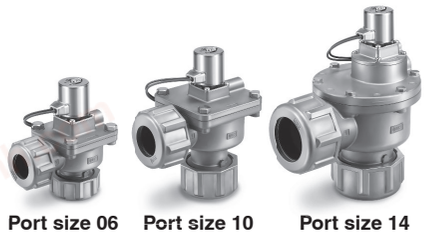
No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Sub-valve**	Resin
6	**O-ring**	NBR
7	**Bonnet**	ADC
8	**Hexagon bolt**	Stainless steel
9	**O-ring**	NBR
10	**O-ring**	NBR
11	**Gasket**	NBR
12	**Bottom support**	ADC
13	**Outlet pipe assembly**	STKM + SS400
14	**Cross recessed round head screw**	Stainless steel
15	**Pilot valve**	—

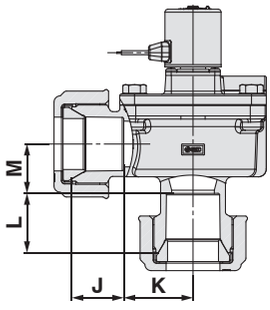
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Dimensions: JSXFE/Compression Fitting Type

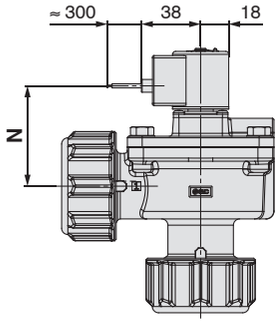
G: Grommet



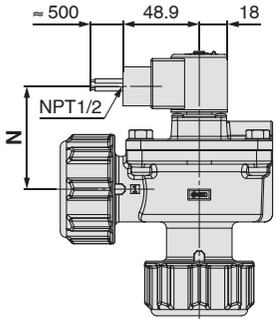




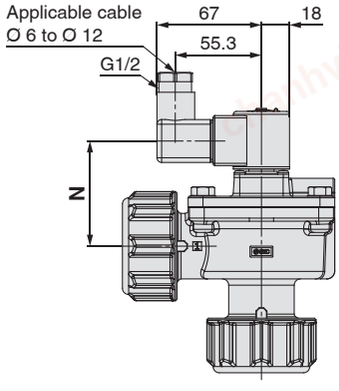
GS: Grommet with PCB



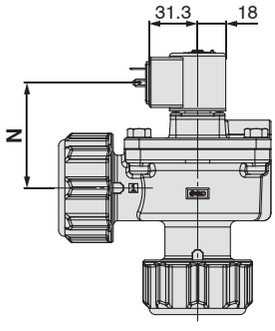
CS: Conduit



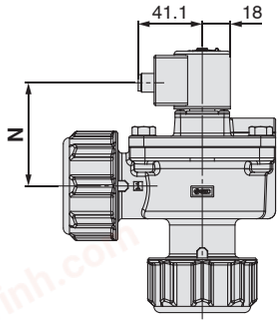
DS: DIN terminal
DZ: DIN terminal with light



DN: Without DIN connector



WN: M12 connector



Dimensions

[mm]

Model	Port size P	A	(B)	(C)	(E)	(F)	(G)	H	J	K	L	M
JSXFE-06	3/4	74	76	113	54	136	82	54	25.4	41.3	25.4	18.8
JSXFE-10	1	94	90	137	82	170	116	65	33.3	44.4	38.1	31.6
JSXFE-14	1 1/2	Ø 126	117	178	92	217	139	80	51.3	50.7	45	33

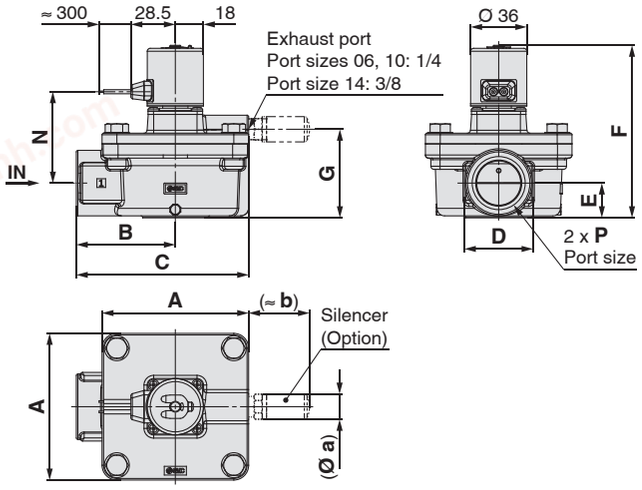
The dimensions in ( ) show the dimensions after tightening.

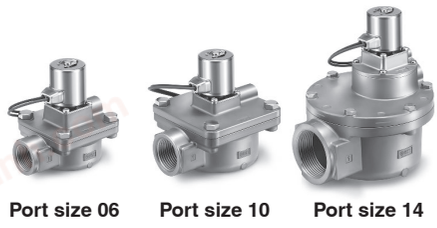
Model	Port size P	Grommet	Grommet with PCB	Conduit	DIN terminal	Without DIN connector	M12 connector	With silencer	
		N						a	b
JSXFE-06	3/4	52.6	58.3	59.9	61.4	61.4	60.2	16.5	39
JSXFE-10	1	58.6	64.3	65.9	67.4	67.4	66.2		
JSXFE-14	1 1/2	95.6	101.3	102.9	104.4	104.4	103.2	20	52

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Dimensions: JSXFF/Direct Piping Type

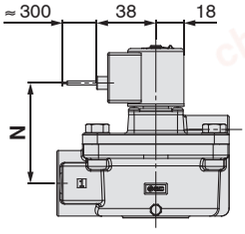
G: Grommet



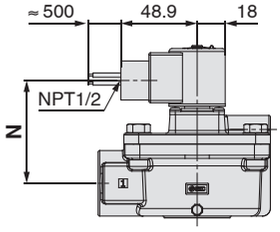


Port size 06 Port size 10 Port size 14

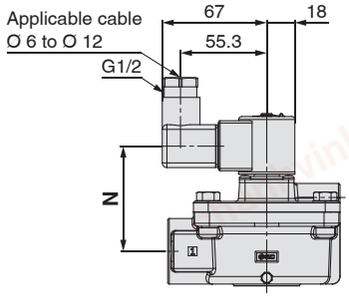
GS: Grommet with PCB



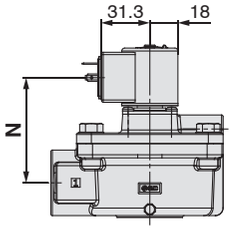
CS: Conduit



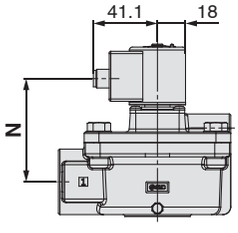
DS: DIN terminal
DZ: DIN terminal with light



DN: Without DIN connector



WN: M12 connector



Dimensions

[mm]

Model	Port size P	A	B	C	D	E	F	G
JSXFF-06	3/4	74	55.5	92.5	36	19.3	101.6	47.8
JSXFF-10	1	94	63.5	110.5	44	22.2	110.5	56.7
JSXFF-14	1 1/2	O 126	75.1	136.6	65	32	157.3	79

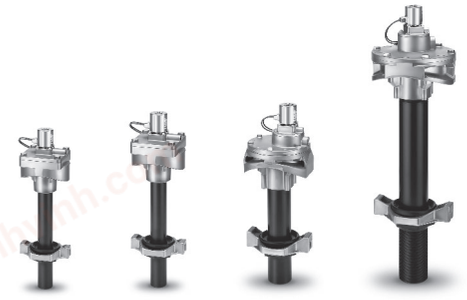
Model	Port size P	Grommet	Grommet with PCB	Conduit	DIN terminal	Without DIN connector	M12 connector	With silencer	
		N						a	b
JSXFF-06	3/4	52.6	58.3	59.9	61.4	61.4	60.2	16.5	39
JSXFF-10	1	58.6	64.3	65.9	67.4	67.4	66.2		
JSXFF-14	1 1/2	95.6	101.3	102.9	104.4	104.4	103.2	20	52

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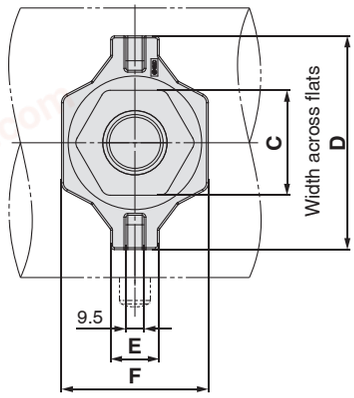
Solenoid Valve Type

JSXF Series

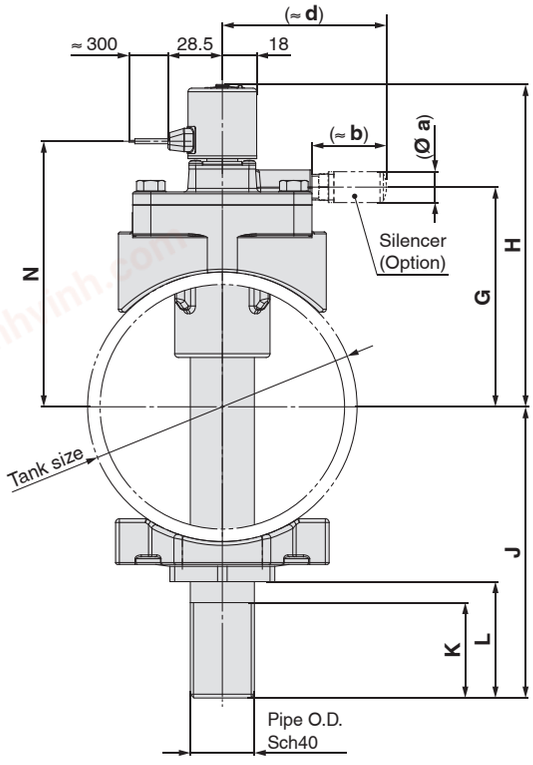
Dimensions: JSXFH/Immersion Type

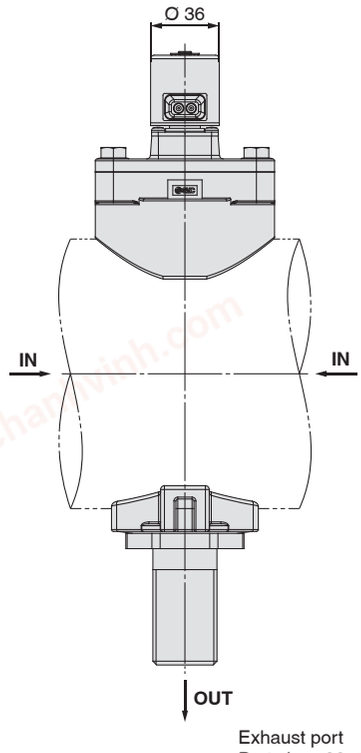


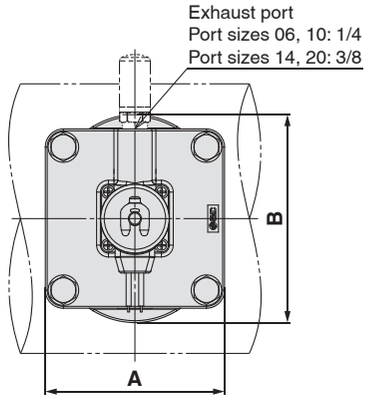
Port size 06 | Port size 10 | Port size 14 | Port size 20



G: Grommet







Dimensions

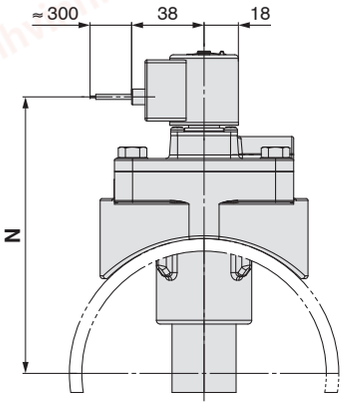
Model	Port size	Tank size	Pipe O.D.	A	B	C	D	E	F	G	H
JSXFH4-06	3/4	4 inch (ANSI 4")	Ø 26.7 (ANSI 3/4")	90	93	46	90	25.5	63	99	153
JSXFH5-06		5 inch (ANSI 5")								113	166
JSXFH5-10	1		Ø 33.6 (ANSI 1")	94	109	55	112	25.5	77	115	168
JSXFH6-10		6 inch (ANSI 6")								128	182
JSXFH6-14	1 1/2		Ø 48.3 (ANSI 1 1/2")	131	131	65	130	34.5	90	124	202
JSXFH8-14		8 inch (ANSI 8")								150	228
JSXFH8-20	2		Ø 60.3 (ANSI 2")	168	170	80	160	34.5	108	165	243
JSXFH10-20		10 inch (ANSI 10")								192	270

Model	Port size	OUT port piping configuration											
		1			2			3			4		
		J	K	L	J	K	L	J	K	L	J	K	L
JSXFH4-06	3/4	146 ±5	—	62	164 ±5	—	80	146 ±5	G3/4" x 50	62	164 ±5	G3/4" x 70	80
JSXFH5-06		153 ±5		56	173 ±5		76	153 ±5	G3/4" x 50	56	173 ±5	G3/4" x 70	76
JSXFH5-10	1	153 ±5		61	173 ±5		81	153 ±5	G1" x 50	61	173 ±5	G1" x 70	81
JSXFH6-10		173 ±5		68	213 ±5		108	173 ±5	G1" x 50	68	213 ±5	G1" x 90	108
JSXFH6-14	1 1/2	169 ±5		61	209 ±5		101	169 ±5	G1 1/2" x 50	61	209 ±5	G1 1/2" x 90	101
JSXFH8-14		198 ±5		65	258 ±5		125	198 ±5	G1 1/2" x 50	65	258 ±5	G1 1/2" x 110	125
JSXFH8-20	2	197 ±5		60	257 ±5		120	197 ±5	G2" x 50	60	257 ±5	G2" x 110	120
JSXFH10-20		224 ±5		60	284 ±5		120	224 ±5	G2" x 50	60	284 ±5	G2" x 110	120

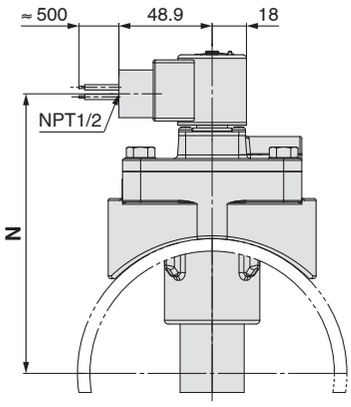
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Dimensions: JSXFH/Immersion Type

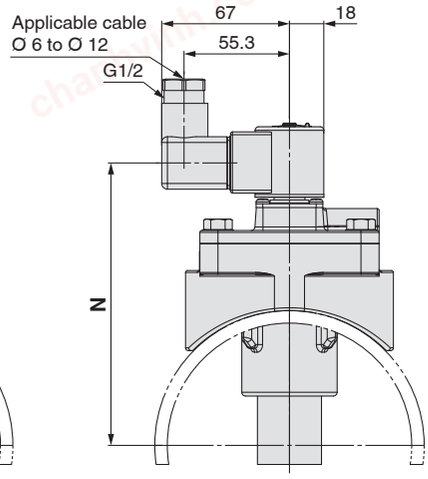
GS: Grommet with PCB



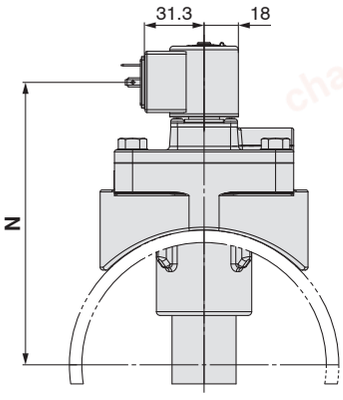
CS: Conduit



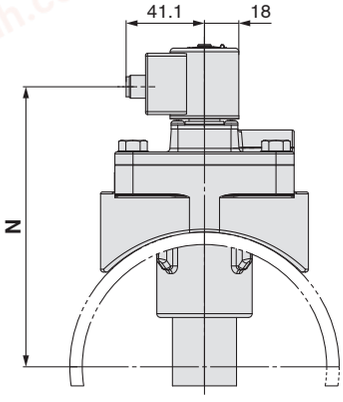
DS: DIN terminal
DZ: DIN terminal with light



DN: Without DIN connector



WN: M12 connector



Dimensions

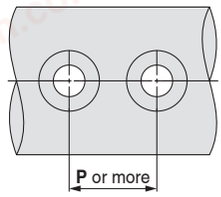
[mm]

Model	Port size	Grommet	Grommet with PCB	Conduit	DIN terminal	Without DIN connector	M12 connector	With silencer		
		N						a	b	d
JSXFH4-06	3/4	123	129	131	132	132	131	16.5	39	76
JSXFH5-06		137	142	144	146	146	144			
JSXFH5-10	1	139	144	146	148	148	146			86
JSXFH6-10		152	158	160	161	161	160			
JSXFH6-14	1 1/2	173	178	180	182	182	180	20	52	114
JSXFH8-14		198	204	205	207	207	206			
JSXFH8-20	2	213	219	220	222	222	221			95
JSXFH10-20		240	246	247	249	249	248			

Recommended Tank Dimensions

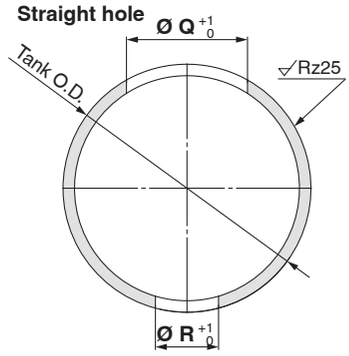
* The tank should be provided by the customer.

Tank hole pitch

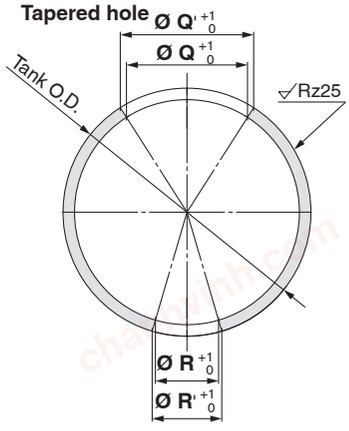


Tank hole machining

Straight hole



Tapered hole



Recommended Tank Dimensions

[mm]

Model	Port size	Tank size	Tank O.D.	Tank hole pitch P	Straight hole		Tapered hole			
					Q	R	Q	Q'	R	R'
JSXFH4-06	3/4	4 inch (ANSI 4")	O 114.3 +1.6 −0.8	95	55	28	55	61.5	28	31.3
JSXFH5-06		5 inch (ANSI 5")	O 141.3 +1.6 −0.8							
JSXFH5-10	1			100	69	36	69	76	36	39.7
JSXFH6-10		6 inch (ANSI 6")	O 168.3 +1.6 −0.8							
JSXFH6-14	1 1/2			135	95	52	95	104	52	56.8
JSXFH8-14		8 inch (ANSI 8")	O 219.1 +1.6 −0.8							
JSXFH8-20	2			175	117	62	117	126	62	67
JSXFH10-20		10 inch (ANSI 10")	O 273.1 +2.4 −0.8							

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Replacement Parts (Solenoid Valve Type/JSXF□)

Port size	Model	Replacement part number			
		Main valve assembly (Main valve + O-ring)	Sub-valve assembly (Sub-valve + O-ring)	Silencer	Solenoid coil*1
06	**JSXF(E, F, H)□-06□-□□B-(S)**	JSXF-06B-KT	—	Rc, G thread: AN20-02 NPT thread: AN20-N02	JSXF□□-□□-□□B-KT1 Valve part number
10	**JSXF(E, F, H)□-10□-□□B-(S)**	JSXF-10B-KT	—		
14	**JSXF(E, F)□-14□-□□B-(S)**	JSXF-14B-KT	JSXF-14B-KT2	Rc, G thread: AN30-03 NPT thread: AN30-N03	
	JSXFH□-14□-□□B-(S)	JSXF-14B-1-KT			
20	**JSXFH□-20□-□□B-(S)**	JSXF-20B-KT	JSXF-14B-KT2		

*1 The solenoid coil has a name plate with the product part number printed on it. In addition, the name plate has the marks of all applicable standards printed on it. For the solenoid coil, eligibility for CE marking standard certification varies depending on the electrical entry type and the rated voltage. When ordering a solenoid coil with different specifications than the valve currently in use, refer to "How to Order" in the catalog to confirm the status of standard compliance.

Disassembly/Assembly Procedure

⚠Caution

1. **Before disassembly, be sure to turn OFF the power supply and pressure supply, and then release the residual pressure.**
2. **Confirm that the solenoid coil temperature has dropped sufficiently before removing the product.**

Disassembly

1) Remove the clip, and then remove the solenoid coil.
2) Loosen the hexagon bolts (cross recessed round head screws), and remove the bonnet assembly (bonnet), O-ring, and the main valve (sub-valve).

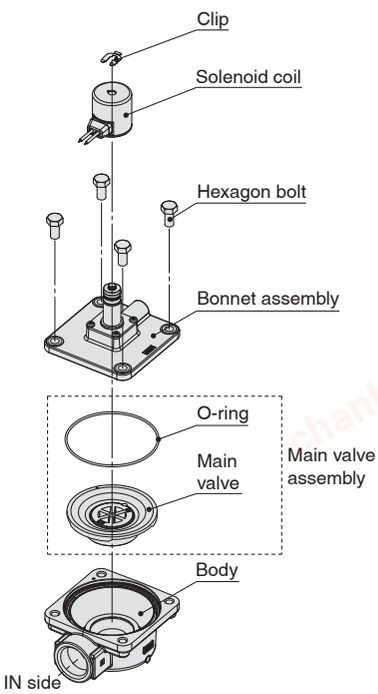
Assembly

1) Attach the main valve (sub-valve) to the body. The main valve (sub-valve) has a predetermined mounting direction. **Assemble the valve referring to Fig. 1.** If the valve is assembled incorrectly, it can cause a malfunction.
2) Mount the O-ring to the body groove. (See Fig. 2.) After mounting the O-ring, check to make sure that the O-ring is fitted properly into the groove, external leakage and/or operation failure may occur.
3) Attach the bonnet assembly (bonnet) to the body.
4) Tighten the hexagon bolts (cross recessed round head screws) diagonally. (See Table 1 for the tightening torque.)
5) Secure the solenoid coil with a clip. (For details, refer to "Specific Product Precautions" on page 46.)

Table 1. Proper Tightening Torque [N·m]

JSXF□-06□		M8	12.5 to 13.8
JSXF□-10□		M8	12.5 to 13.8
JSXF□-14□	Main valve	M6	5.2 to 5.7
	Sub-valve	M4	1.5 to 1.7
JSXF□-20□	Main valve	M8	12.5 to 13.8
	Sub-valve	M4	1.5 to 1.7

Port sizes 06, 10



Port sizes 14, 20

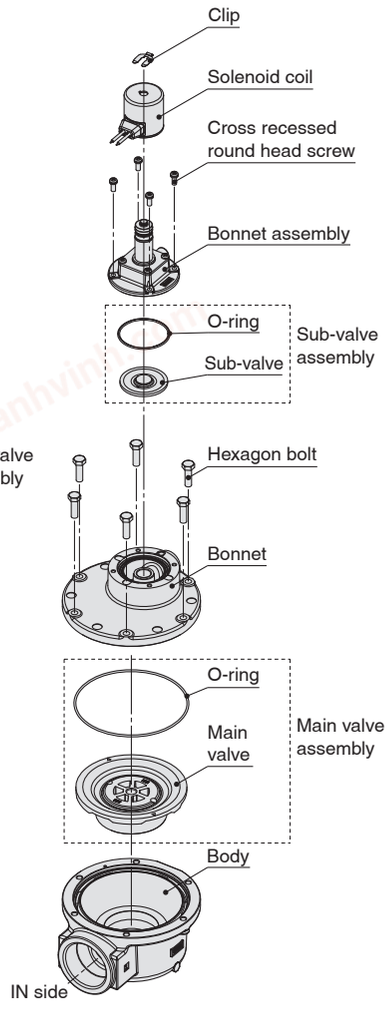
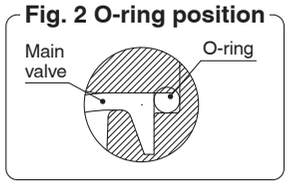
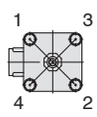


Fig. 2 O-ring position



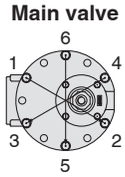
Port sizes 06, 10

Main valve



Port sizes 14, 20

Main valve



Sub-valve

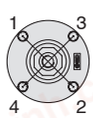
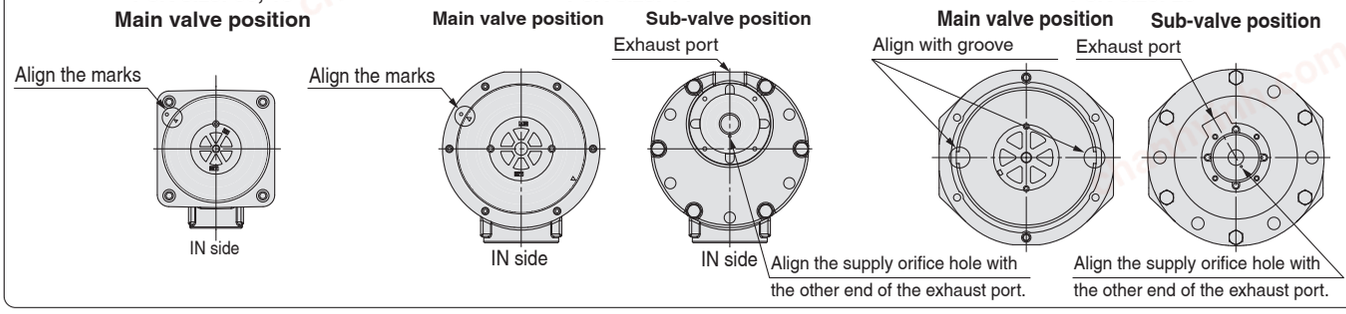


Fig. 1 Valve position



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JSXF Series Option

Cable for M12 Connector (Female Connector with Cable)

The solenoid valve does not come with a cable for the M12 connector.
Please order it separately if necessary.

JSX022 – 30 – [1] – [1]

Specification

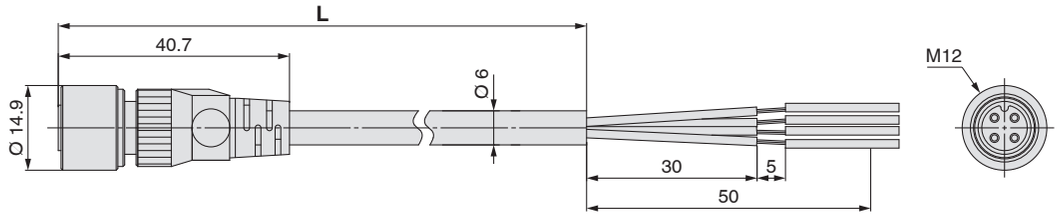
1	For DC voltages
2	For AC voltages

Cable length L [mm]

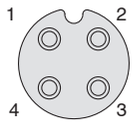
1	1000
2	2000
5	5000

Specifications

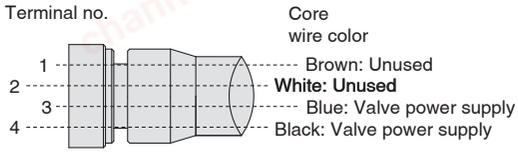
Part number		JSX022-30-1-□	JSX022-30-2-□
Key type		A-coded	B-coded
Rating/Performance	Rated current	4 A	
	Rated voltage	250 V	
	Contact resistance	40 mΩ or less	
	Insulation resistance	1000 MΩ or more	
	Withstand voltage	1500 VAC	
	Operating temperature range	–25 to 70 °C	
	Min. bending radius (Fixed)	50 mm	
	Protection class	IP67 (Only with screw tightened)	
	Allowable repeated insertion/withdrawal	200	
Material	Material of knurl	Brass (Ni plating)	
	Contact (Surface treatment)	Copper alloy (Au plating)	
	Connector material	PBT	
	Cover	Soft PBT	



For DC voltages (A-coded)

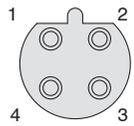


Socket connector pin arrangement

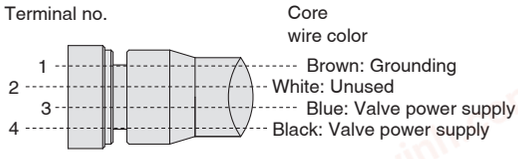


Connections

For AC voltages (B-coded)



Socket connector pin arrangement



Connections

∗ The solenoid valve has no polarity for DC voltages.

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Pulse Valve

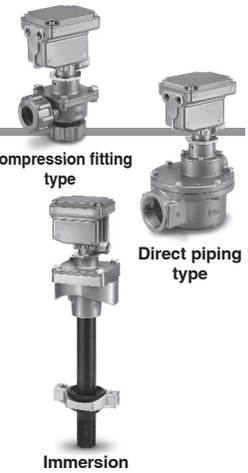
SMARTVENT Type

JSXF-P□ Series

Solenoid Valve Type ▸ p. 7
Air Operated Type ▸ p. 21

How to Order

Compression	JSXF	□	E	–	06	F	–	5	PR	B	–	S	2
Direct Piping	JSXF	□	F	–	06	F	–	5	PR	B	–	S	2
Immersion	JSXF	□	H	4	– 06	F	1	– 5	PR	B	–	S	2
		❶	❷	❸	❹	❺	❻	❼	❽	❾		❿	⓫



❶ Valve type

—	Solenoid valve

❷ Piping

E	Compression fitting type*1	
F	Direct piping type	
H	Immersion type*2	

*1 Seals and washers are included.
*2 The valve and pipe do not come assembled.

❸ Tank size (JSXFH only)

4	4 inch
5	5 inch
6	6 inch
8	8 inch
10	10 inch

❹ Port size*1

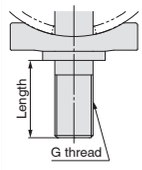
06	3/4 (20A)
10	1 (25A)
14	1 1/2 (40A)
20*2	2 (50A)

*1 For port size selection, refer to the "Variations for Port Size and Option" table below.
*2 Port size 2 0 is only available for the JSXFH.

❺ Thread type

R	Rc
N	NPT
F	G

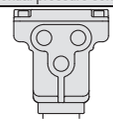
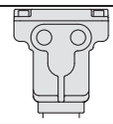
❻ OUT port piping configuration (JSXFH only)

Symbol	Length	G thread	Appearance
1	Short	None	
2	Long		
3	Short	Yes	
4	Long		

❼ Rated voltage

Symbol	Rated voltage
5	24 VDC

❽ Electric control

Symbol	Board type	External input (Differential pressure sensor)	
PP*1	Base	With (3 holes)	
PB		Without (2 holes)	
PR	Remote		

*1 When using a differential pressure sensor (provided by the customer), select PP for the base valve. Use a 2-wire type 4 to 20 mA specification differential pressure sensor.

❾ Fluid and ambient temperatures

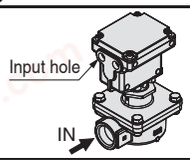
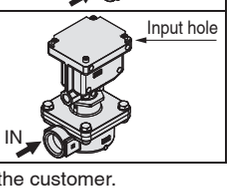
B	–40 to 60 °C

❿ Silencer

—	Without
S	With

· Shipped together with the product
· 2 pcs. for 40A and 50A Refer to "Replacement Parts" on page 20.

⓫ Electrical entry

—	IN side	
2	180° Inverted	

· It can be changed by the customer. For details, refer to page 44.

Variations for Port Size and Option

Model	Tank size	Port size			
		06	10	14	20
JSXFE	—	●	●	●	—
JSXFF	—	●	●	●	—
JSXFH	4 inch	●	—	—	—
	5 inch	●	●	—	—
	6 inch	—	●	●	—
	8 inch	—	—	●	●
	10 inch	—	—	—	●
Silencer		●	●	●	●

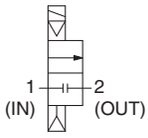
Made to Order

Tank hole dia.: Ø 76 (Port size 14, 6-inch tank)	p. 33

For more information on using SMARTVENT types, refer to the operation manual. Download it from our website: https://www.smc.eu

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Symbol





JSXFE Series



JSXFF Series



JSXFH Series

Specifications

Common Specifications

Valve specifications	**Valve construction**		Pilot operated diaphragm
	Valve type		Normally closed (N.C.)
	Fluid		Air
	Pilot valve orifice dia.	**[mm]**	Ø 4.5
	Withstand pressure	**[MPa]**	1.5
	Min. operating pressure differential	**[MPa]**	0.1
	Max. operating pressure differential	**[MPa]**	0.9
	Max. system pressure	**[MPa]**	0.9
	Fluid temperature	**[°C]**	–40*1 to 60
	Ambient temperature	**[°C]**	–40 to 60
	Enclosure*2		IP67, NEMA4
	Standards		CE/UKCA
Coil specifications	**Rated voltage**	**[V]**	24 VDC
	Allowable voltage fluctuation		±10 % of the rated voltage
	Allowable leakage voltage		2 % or less of the rated voltage
	Power consumption*3	**[W]**	18
Board specifications	**ON time**	**[ms]**	100 to 234
	OFF time	**[s]**	4 to 29
	Current consumption	**[mA]**	Base: 25 or less Remote: 15 or less*4

∗1 No condensation
∗2 For IP67 and NEMA4, wired components must be installed in an input hole or the holes must be plugged.
∗3 Power consumption: The value at an ambient temperature of 20 °C and when the rated voltage is applied (Variation: ±10 %)
∗4 Current consumption per remote valve (It is added to match the number of valves.)
Be sure to read "Specific Product Precautions" before handling.

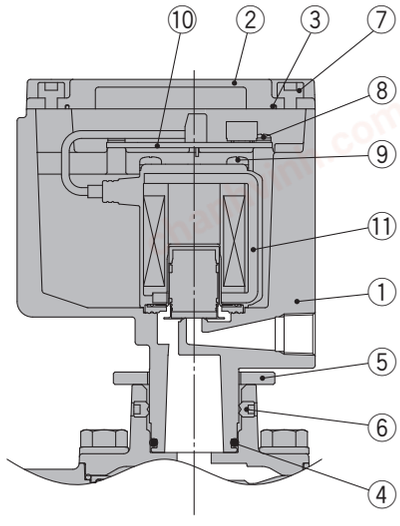
Weight

Model			06		10		14		20	
JSXFE			1,240		1,680		2,620		—	
JSXFF			1,060		1,270		2,000		—	
JSXFH*1	**Tank size**		4	5	5	6	6	8	8	10
	Piping configuration	**1**	1,880	1,890	2,500	2,560	3,480	3,600	5,190	5,360
		2	1,910	1,930	2,550	2,660	3,640	3,830	5,510	5,670
		3	1,880	1,890	2,500	2,560	3,480	3,600	5,190	5,360
		4	1,910	1,930	2,550	2,660	3,640	3,830	5,510	5,670

∗1 The tank weight is not included in the weight table.

Construction

Components other than those shown below are the same as those of the air operated type.



Component Parts

No.	Description	Material
1	**Box**	ADC
2	**Cover**	ADC
3	**Gasket**	NBR
4	**O-ring**	NBR
5	**Nut**	Stainless steel
6	**Hexagon socket head set screw**	Stainless steel
7	**Hexagon socket head cap screw**	Stainless steel
8	**Cross recessed round head screw**	Stainless steel
9	**Cross recessed round head screw**	Fe
10	**Board assembly**	—
11	**Pilot valve**	—

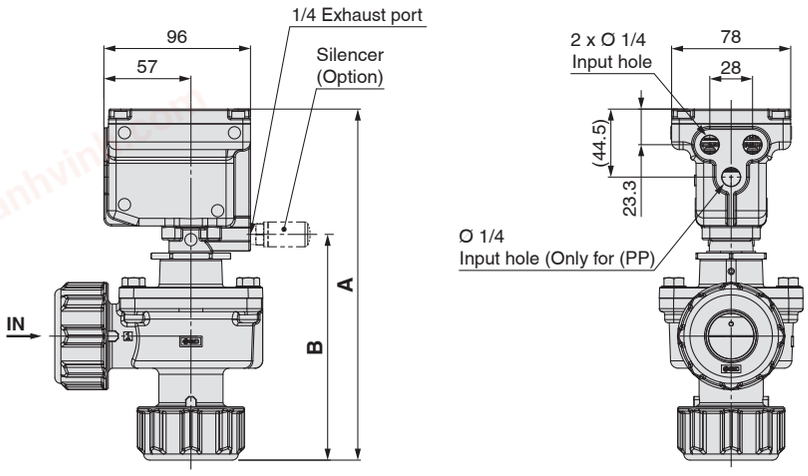
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SMARTVENT Type

JSXF-P□ Series

Dimensions (Dimensions other than those shown below are the same as those of the air operated type.)

JSXFE/Compression fitting type

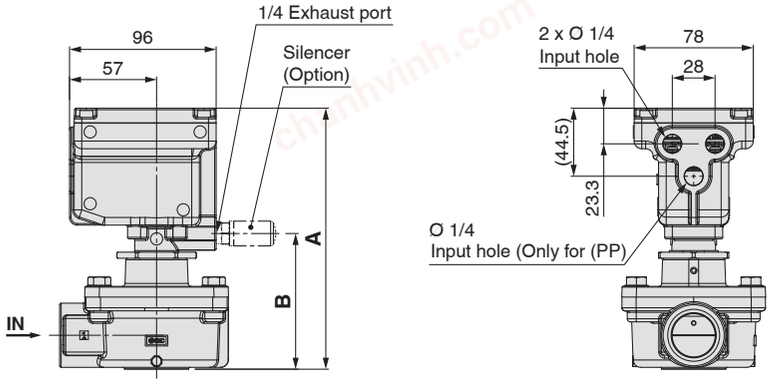


Dimensions [mm]

Model	Port size	A	B
JSXFE-06	3/4	196	114
JSXFE-10	1	230	148
JSXFE-14	1 1/2	280	198

The dimensions indicate the values after screw tightening.

JSXFF/Direct piping type

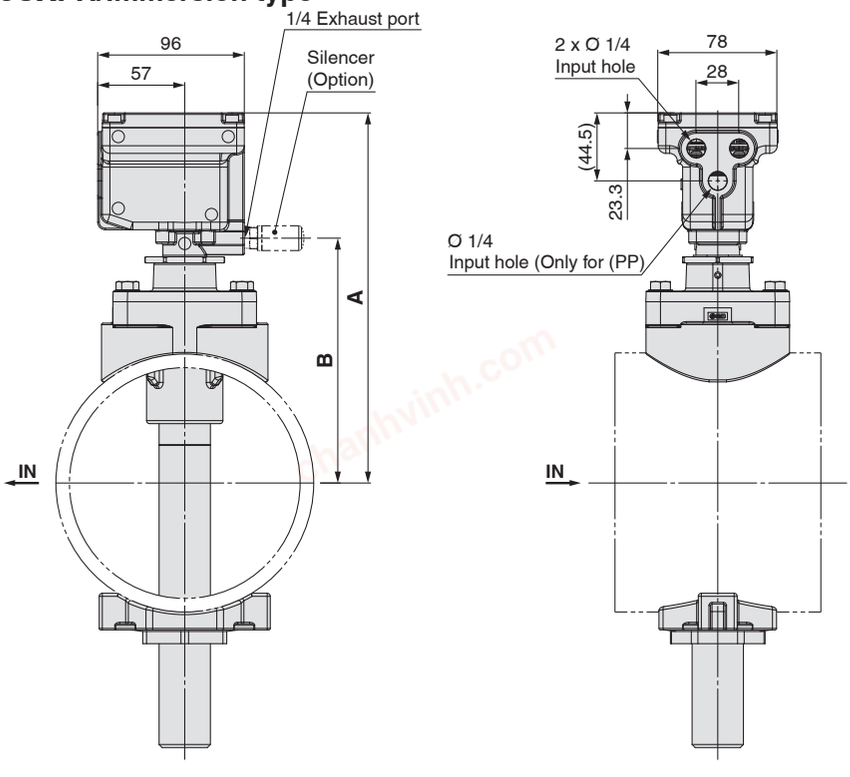


Dimensions [mm]

Model	Port size	A	B
JSXFF-06	3/4	162	80
JSXFF-10	1	171	89
JSXFF-14	1 1/2	221	139

The dimensions indicate the values after screw tightening.

JSXFH/Immersion type



Dimensions [mm]

Model	Port size	A	B
JSXFH4-06	3/4	213	131
JSXFH5-06		227	145
JSXFH5-10	1	229	147
JSXFH6-10		242	160
JSXFH6-14	1 1/2	266	184
JSXFH8-24		291	209
JSXFH8-20	2	306	224
JSXFH10-20		333	251

The dimensions indicate the values after screw tightening.

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Replacement Parts (SMARTVENT Type/JSXF)

Port size	Model	Replacement part number			
		Main valve assembly (Main valve + O-ring)	Sub-valve assembly (Sub-valve + O-ring)	Silencer ①	Silencer ②
06	**JSXF(E, F, H)□-06□-5P□B-(S)**	JSXF-06B-KT	—	Rc, G thread: AN20-02 NPT thread: AN20-N02	—
10	**JSXF(E, F, H)□-10□-5P□B-(S)**	JSXF-10B-KT	—		
14	**JSXF(E, F)□-14□-5P□B-(S)**	JSXF-14B-KT	JSXF-14B-KT2	Rc, G thread: AN20-02 NPT thread: AN20-N02	Rc, G thread: AN30-03 NPT thread: AN30-N03
	JSXFH□-14□-5P□B-(S)	JSXF-14B-1-KT			
20	**JSXFH□-20□-5P□B-(S)**	JSXF-20B-KT	JSXF-14B-KT2		

Disassembly/Assembly Procedure

⚠Caution

1. Before disassembly, be sure to turn OFF the power supply and pressure supply, and then release the residual pressure.

Disassembly

1) Loosen the hexagon bolts, and remove the bonnet assembly (bonnet), O-ring, and the main valve (sub-valve).

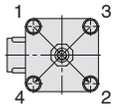
Assembly

1) Attach the main valve (sub-valve) to the body. The main valve (sub-valve) has a predetermined mounting direction.
Assemble the valve referring to Fig. 1.
If the valve is assembled incorrectly, it can cause a malfunction.
2) Mount the O-ring to the body groove. (See Fig. 2.)
After mounting the O-ring, check to make sure that the O-ring is fitted properly into the groove. If it is not in the groove, external leakage and/or operation failure may occur.
3) Attach the bonnet assembly (bonnet) to the body.
4) Tighten the hexagon bolts (hexagon socket head cap screws) diagonally.
(See Table 1 for the tightening torque.)

Table 1. Proper Tightening Torque [N·m]

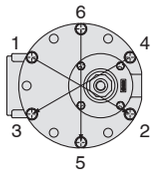
JSXF□-06□		M8	12.5 to 13.8
JSXF□-10□		M8	12.5 to 13.8
JSXF□-14□	Main valve	M6	5.2 to 5.7
	Sub-valve	M4	1.5 to 1.7
JSXF□-20□	Main valve	M8	12.5 to 13.8
	Sub-valve	M4	1.5 to 1.7

Port sizes 06, 10



Port sizes 14, 20

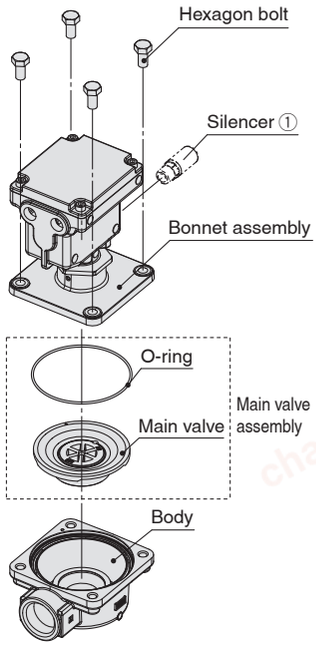
Main valve



Sub-valve



Port sizes 06, 10



Port sizes 14, 20

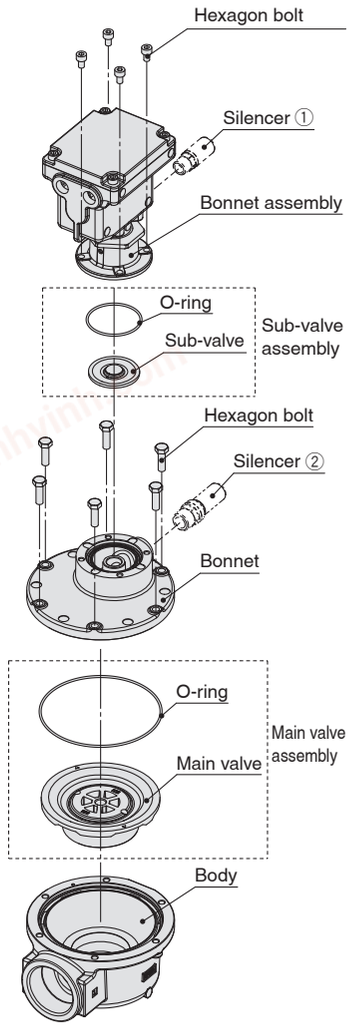


Fig. 2 O-ring position

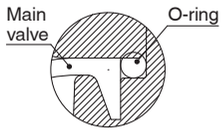
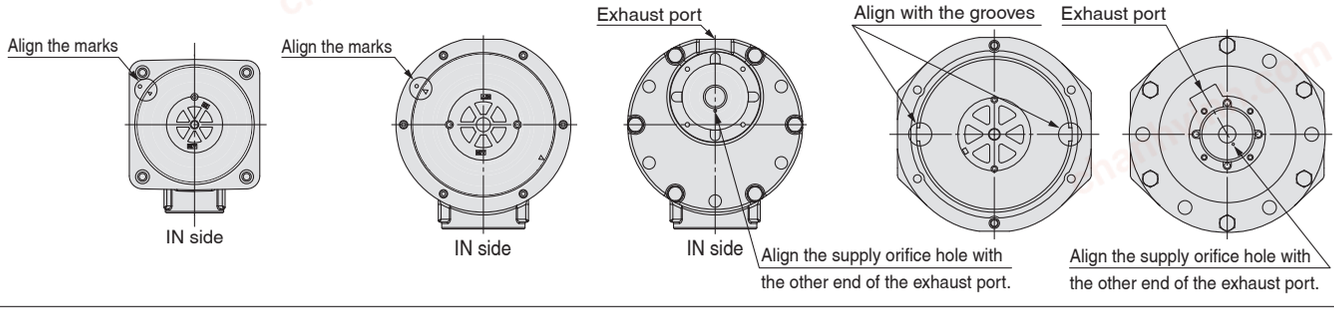


Fig. 1 Valve position



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Pulse Valve Valve for Dust Collector

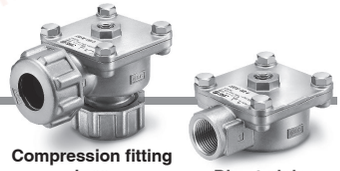
Air Operated Type

JSXFA Series

RoHS

Solenoid Valve Type ▸ p. 7
SMARTVENT Type ▸ p. 17

How to Order


Compression fitting type

Direct piping type


Immersion type

		❶	❷	❸		❹	❺	❻	❼	❽	❾
Compression	JSXF	A	E		–	06	R		– B –		1
Direct Piping	JSXF	A	F		–	06	R		– B –		1
Immersion	JSXF	A	H	4	–	06	R	1	– B –		1

❶ Valve type

A	Air operated

❷ Piping

E	Compression fitting type*1	
F	Direct piping type	
H	Immersion type*2	

*1 Seals and washers are included.
*2 The valve and pipe do not come assembled.

❸ Tank size (JSXFAH only)

4	4 inch
5	5 inch
6	6 inch
8	8 inch
10	10 inch

❹ Port size*1

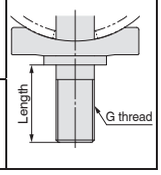
06	3/4 (20A)
10	1 (25A)
14	1 1/2 (40A)
20*2	2 (50A)

*1 For port size selection, refer to the "Variations for Port Size and Option" table below.
*2 Port size 2 0 is only available for the JSXFAH.

❺ Thread type

R	Rc
N	NPT
F	G

❻ OUT port piping configuration (JSXFAH only)

Symbol	Length	G thread	Appearance
1	Short	None	
2	Long		
3	Short	Yes	
4	Long		

❼ Fluid and ambient temperatures

B	–40 to 60 °C

❽ Silencer

(Only port size 14 and 20 can be selected.)

—	Without
S	With

Shipped together with the product
Refer to "Replacement Parts" on page 31.

❾ Pilot port size

—	1/4
1	1/8

Made to Order

Tank hole dia.: Ø 76 (Port size 14, 6-inch tank)	p. 33

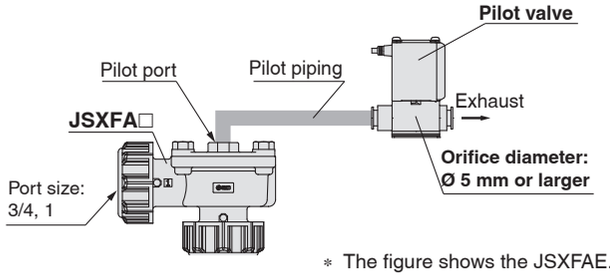
⚠ Caution

Pilot Valve Selection (JSXFA series common)

For the pilot valve orifice diameter, Ø 5 mm or larger is recommended.

The product may not operate correctly if the pilot valve orifice diameter is inadequate. (Port size: 3/4, 1)
Depending on the pilot piping port size*1 or length, the valve may not operate correctly.

*1 The I.D. of the pilot piping must be larger than the pilot valve orifice diameter to use. The max. pilot piping I.D. is 10 mm.



* The figure shows the JSXFAE.

Made to Order (JSXFA series common)

When the pilot valve orifice diameter is Ø 3 mm or larger and less than Ø 5 mm, put "**A**" to the end of the product number for made-to-order.

Pilot valve orifice diameter: Special specification

A	For Ø 3 mm to Ø 5 mm	Port size: 06, 10

JSXFA □ – □ □ – B – □ □ **A**

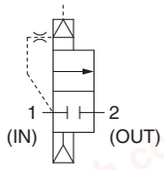
Enter the standard product number.

Variations for Port Size and Option

Model	Tank size	Port size			
		06	10	14	20
JSXFAE	—	●	●	●	—
JSXFAF	—	●	●	●	—
JSXFAH	4 inch	●	—	—	—
	5 inch	●	●	—	—
	6 inch	—	●	●	—
	8 inch	—	—	●	●
	10 inch	—	—	—	●
Pilot valve orifice		●	●	—	—
Silencer		—	—	●	●

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Symbol

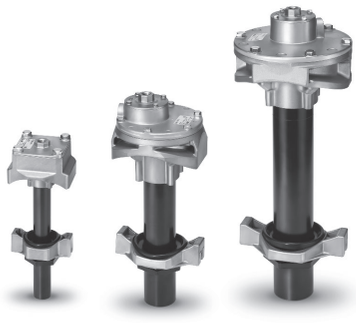




JSXFAE Series



JSXFAF Series



JSXFAH Series

Specifications

Common Specifications

Valve specifications	**Fluid**	Air
	Min. operating pressure differential [MPa]	0.1
	Max. operating pressure differential [MPa]	0.9
	Max. system pressure [MPa]	0.9
	Fluid temperature [°C]	–40*1 to 60
	Ambient temperature [°C]	–40 to 60
	Operating environment	Indoor/Outdoor*2

∗1 No condensation
∗2 For outdoor use, be sure to implement sufficient measures to protect the operational pilot valve from rain water.
Refer to "2-Port Solenoid Valves for Fluid Control Precautions" for protective measures.
Be sure to read "Specific Product Precautions" before handling.

Individual Specifications: Compression Fitting Type / Direct Piping Type

Series		JSXFAE/F		
		06	**10**	**14**
Orifice diameter [mm]		Ø 32	Ø 40	Ø 50
Port size		3/4	1	1 1/2
Weight [g]	**Compression**	470	910	1,850
	Direct piping	290	500	1,230

Individual Specifications: Immersion Type

Series			JSXFAH							
			06		**10**		**14**		**20**	
Orifice diameter [mm]			Ø 32		Ø 40		Ø 45		Ø 55	
Port size			3/4		1		1 1/2		2	
Tank size		**ANSI**	4	5	5	6	6	8	8	10
Weight*3 [g]	**Piping configuration**	**1**	1,110	1,120	1,730	1,790	2,710	2,830	4,420	4,590
		2	1,140	1,160	1,780	1,890	2,870	3,060	4,740	4,900
		3	1,110	1,120	1,730	1,790	2,710	2,830	4,420	4,590
		4	1,140	1,160	1,780	1,890	2,870	3,060	4,740	4,900

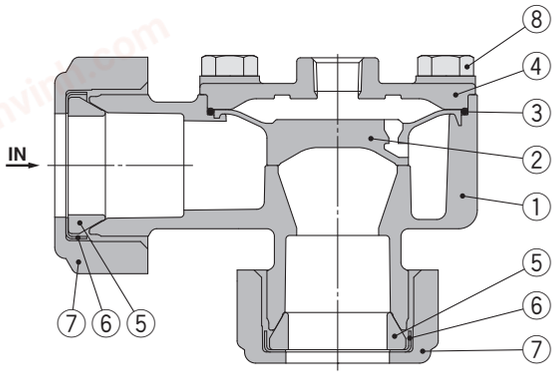
∗3 The tank weight is not included in the weight above.

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Construction

JSXFAE/Compression Fitting Type

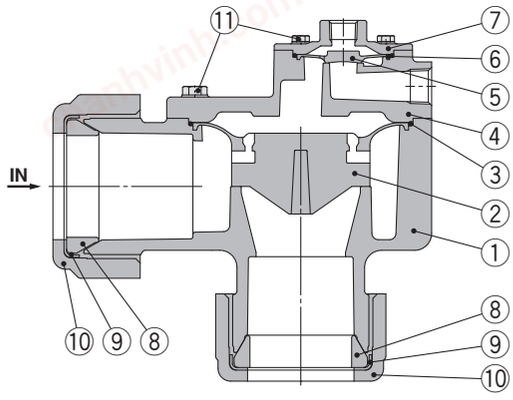
Port sizes 06, 10



Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Seal**	NBR
6	**Washer**	Fe (Chromating)
7	**Compression nut**	ADC
8	**Hexagon bolt**	Stainless steel

Port size 14



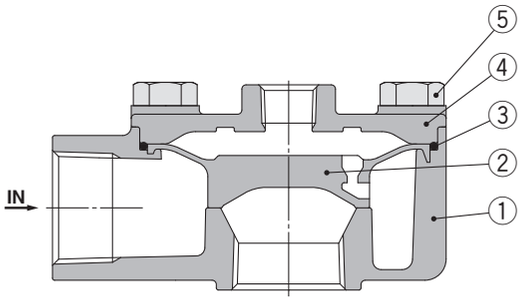
Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Sub-valve**	Resin
6	**O-ring**	NBR
7	**Bonnet**	ADC

No.	Description	Material
8	**Seal**	NBR
9	**Washer**	Fe (Chromating)
10	**Compression nut**	ADC
11	**Hexagon bolt**	Stainless steel

JSXFAF/Direct Piping Type

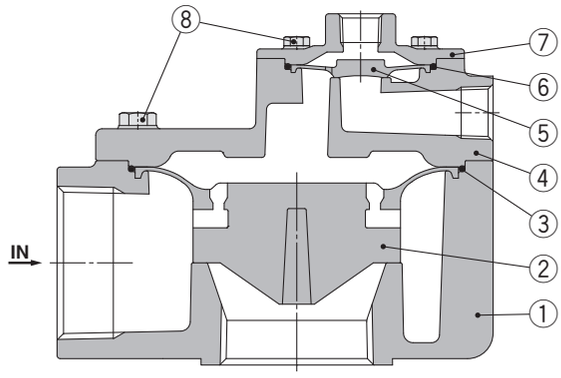
Port sizes 06, 10



Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Hexagon bolt**	Stainless steel

Port size 14



Component Parts

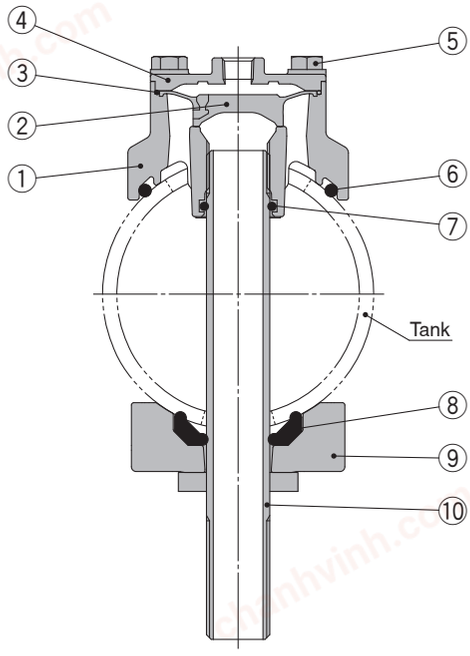
No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Sub-valve**	Resin
6	**O-ring**	NBR
7	**Bonnet**	ADC
8	**Hexagon bolt**	Stainless steel

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Construction

JSXFAH/Immersion Type

Port sizes 06, 10

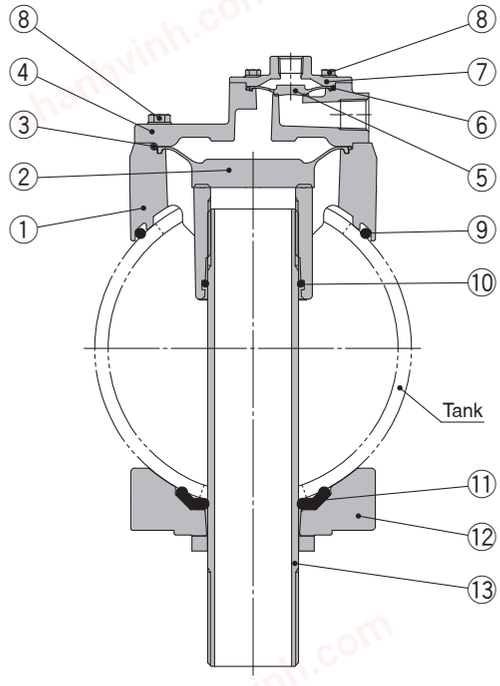


∗ The tank should be provided by the customer.

Component Parts

No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Hexagon bolt**	Stainless steel
6	**O-ring**	NBR
7	**O-ring**	NBR
8	**Gasket**	NBR
9	**Bottom support**	ADC
10	**Outlet pipe assembly**	STKM + SS400

Port sizes 14, 20



∗ The tank should be provided by the customer.

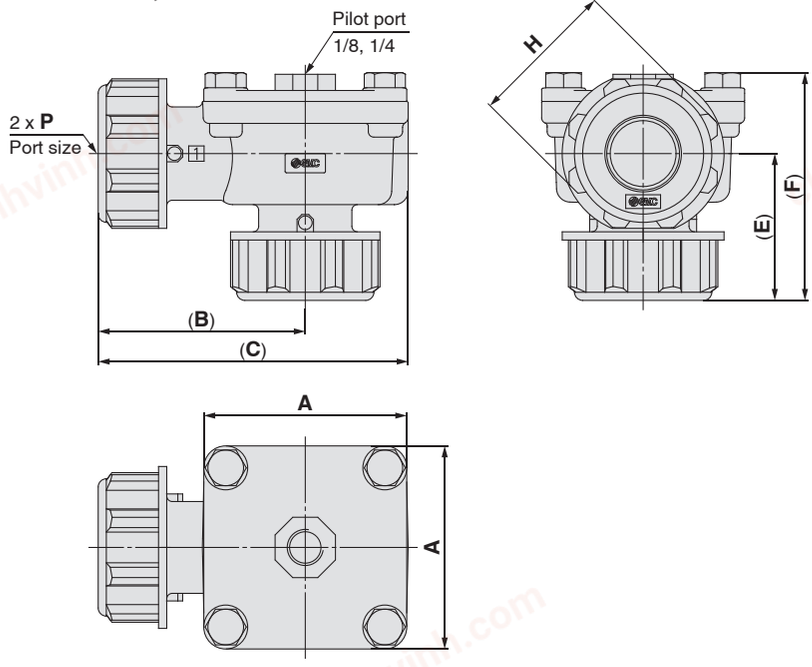
Component Parts

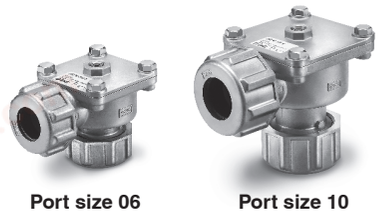
No.	Description	Material
1	**Body**	ADC
2	**Main valve**	Resin
3	**O-ring**	NBR
4	**Bonnet**	ADC
5	**Sub-valve**	Resin
6	**O-ring**	NBR
7	**Bonnet**	ADC
8	**Hexagon bolt**	Stainless steel
9	**O-ring**	NBR
10	**O-ring**	NBR
11	**Gasket**	NBR
12	**Bottom support**	ADC
13	**Outlet pipe assembly**	STKM + SS400

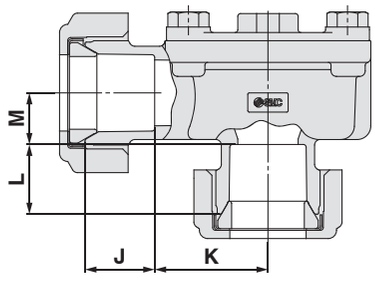
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Dimensions: JSXFAE/Compression Fitting Type

Port sizes 06, 10

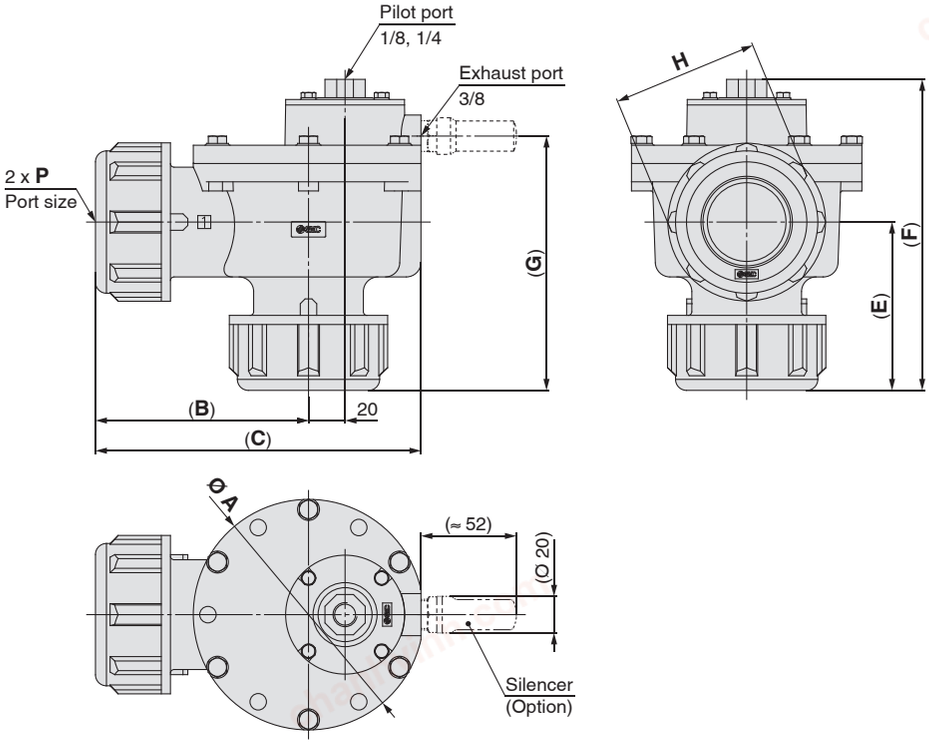


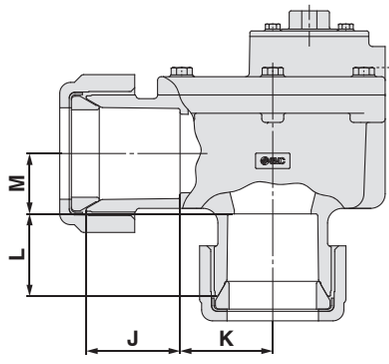

Port size 06 Port size 10



Port size 14


Port size 14





Dimensions

[mm]

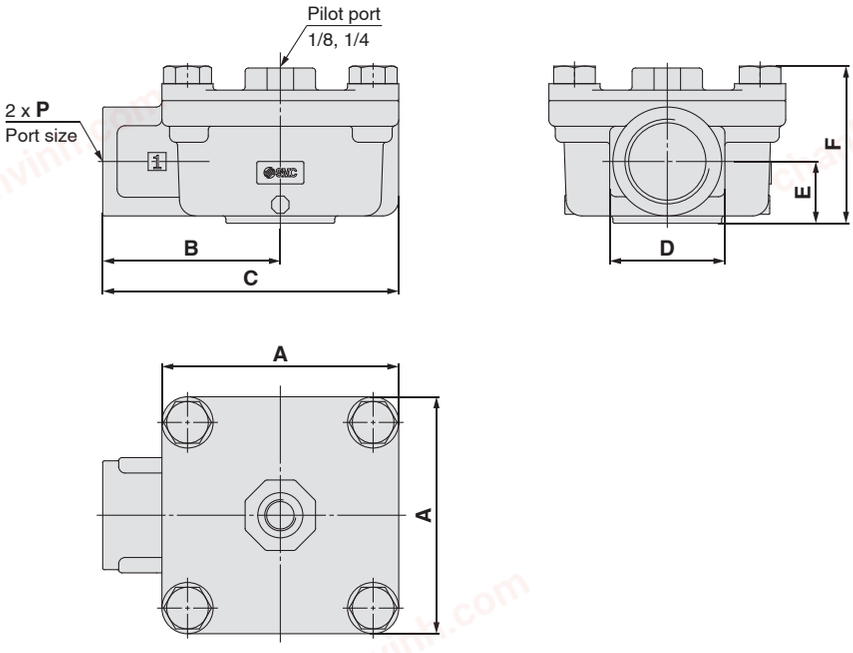
Model	Port size P	A	(B)	(C)	(E)	(F)	(G)	H	J	K	L	M
JSXFAE-06	3/4	74	76	113	54	83	—	54	25.4	41.3	25.4	18.8
JSXFAE-10	1	94	90	137	82	120	—	65	33.3	44.4	38.1	31.6
JSXFAE-14	1 1/2	126	117	178	92	170	139	80	51.3	50.7	45	33

The dimensions in ( ) show the dimensions after tightening.

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Dimensions: JSXFAF/Direct Piping Type

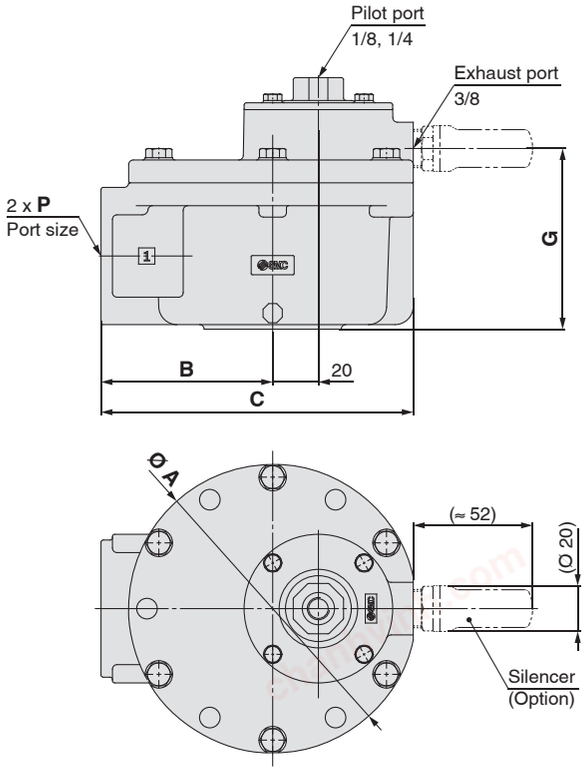
Port sizes 06, 10





Port size 06 Port size 10

Port size 14





Port size 14

Dimensions

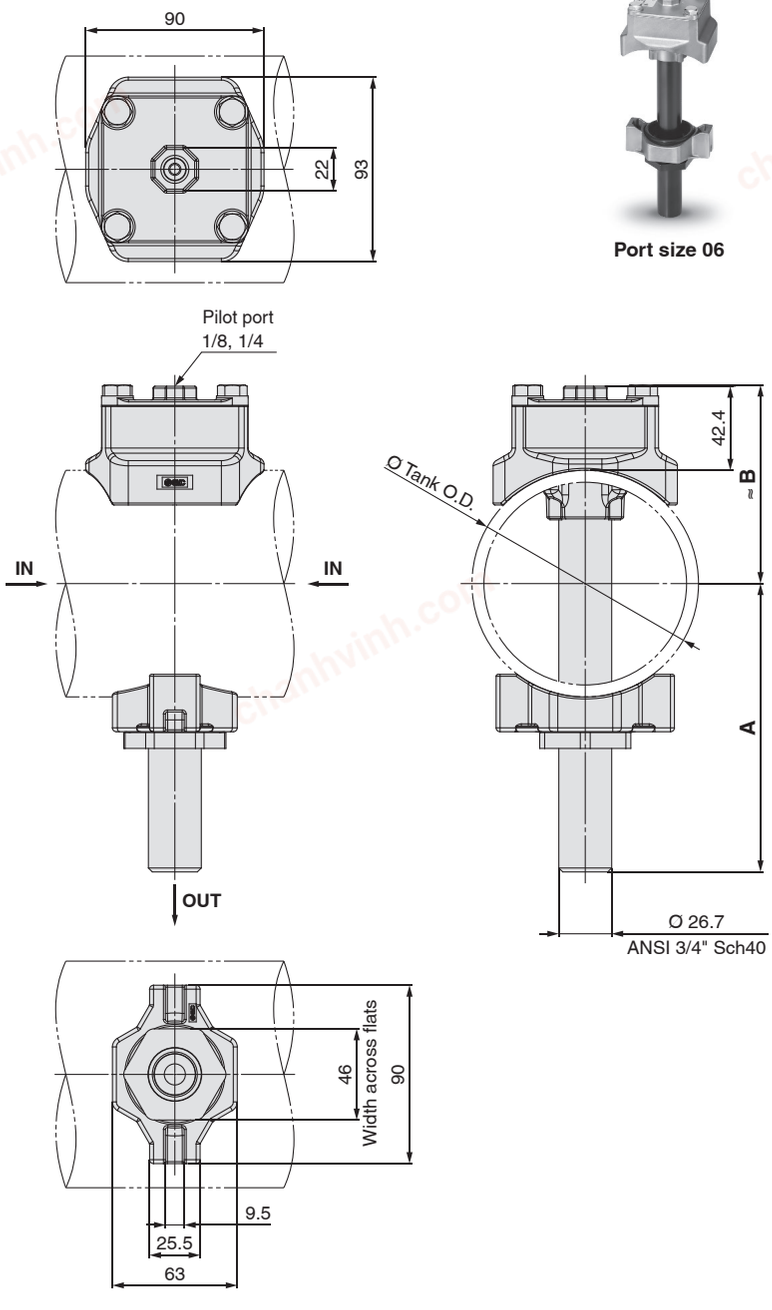
[mm]

Model	Port size P	A	B	C	D	E	F	G
JSXFAF-06	3/4	74	55.5	92.5	36	19.3	48.8	—
JSXFAF-10	1	94	63.5	110.5	44	22.2	60.2	—
JSXFAF-14	1 1/2	126	75.1	136.6	65	32	110	79

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Dimensions: JSXFAH/Immersion Type

Port size 06

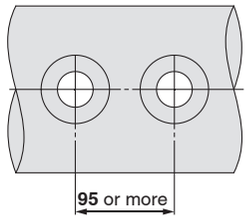


Port size 06

Recommended Tank Dimensions

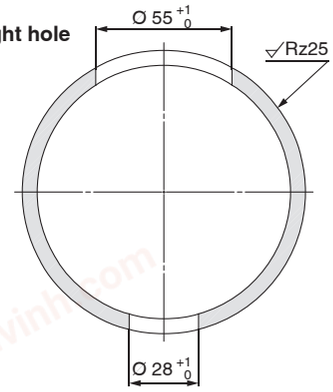
* The tank should be provided by the customer.

Tank hole pitch

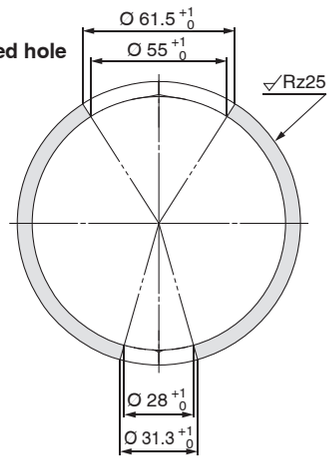


Tank hole machining

Straight hole

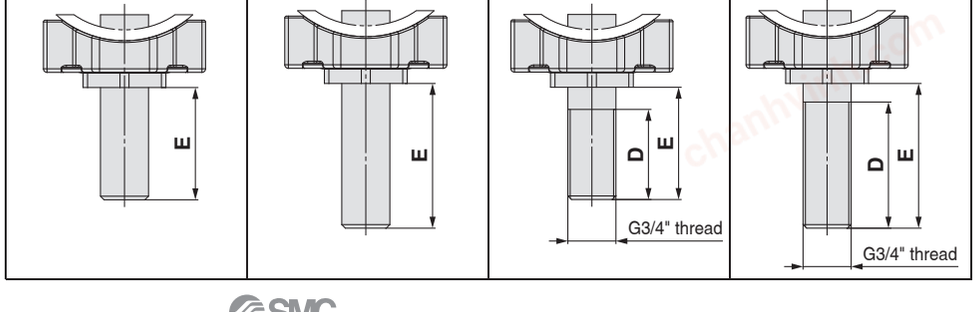


Tapered hole



Dimensions

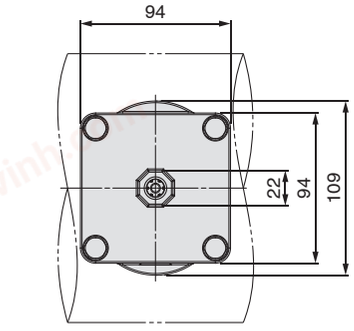
Tank size	Tank O.D. O	B	OUT port piping configuration											
			1			2			3			4		
			A	D	E	A	D	E	A	D	E	A	D	E
4 inch (ANSI 4")	114.3 +1.6 −0.8	100	146 ±5	—	62	164 ±5	—	80	146 ±5	50	62	164 ±5	70	80
5 inch (ANSI 5")	141.3 +1.6 −0.8	114	153 ±5		56	173 ±5		76	153 ±5	50	56	173 ±5	70	76



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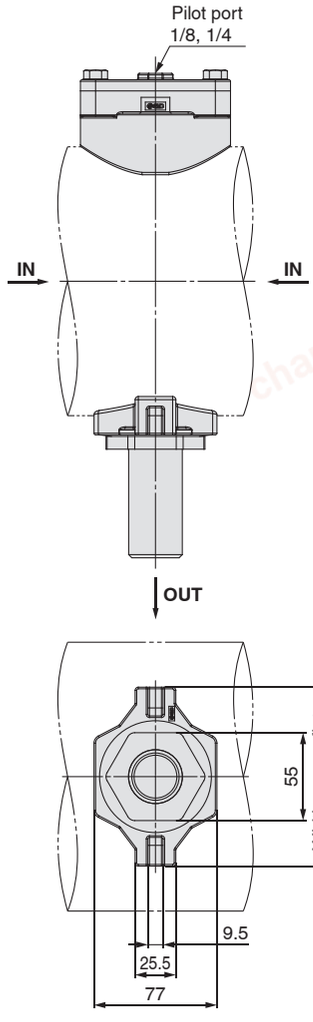
Dimensions: JSXFAH/Immersion Type

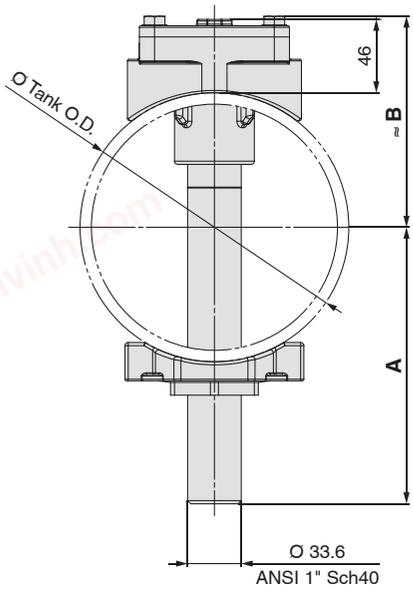
Port size 10





Port size 10

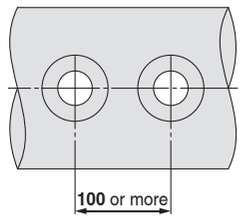




Recommended Tank Dimensions

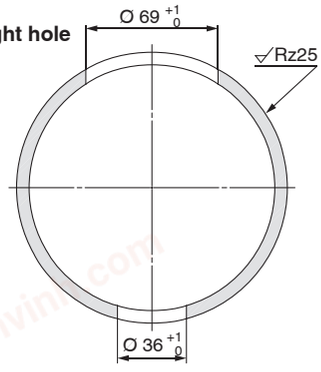
* The tank should be provided by the customer.

Tank hole pitch

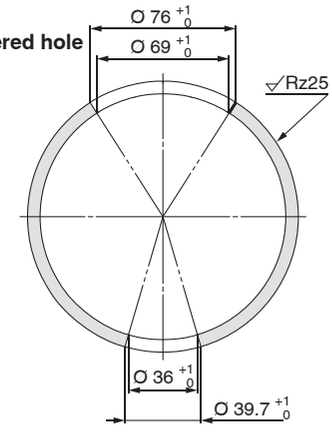


Tank hole machining

Straight hole

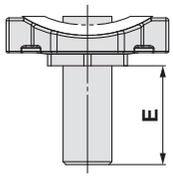


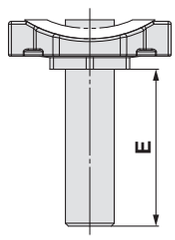
Tapered hole

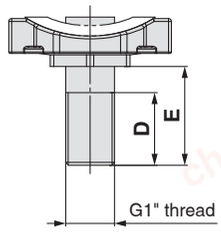


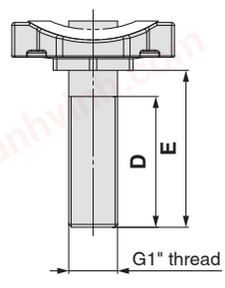
Dimensions

Tank size	Tank O.D. Ø	B	OUT port piping configuration											
			1			2			3			4		
			A	D	E	A	D	E	A	D	E	A	D	E
5 inch (ANSI 5")	141.3 $^{+1.6}_{-0.8}$	118	153 ±5	—	61	173 ±5	—	81	153 ±5	50	61	173 ±5	70	81
6 inch (ANSI 6")	168.3 $^{+1.6}_{-0.8}$	132	173 ±5		68	213 ±5		108	173 ±5	50	68	213 ±5	90	108





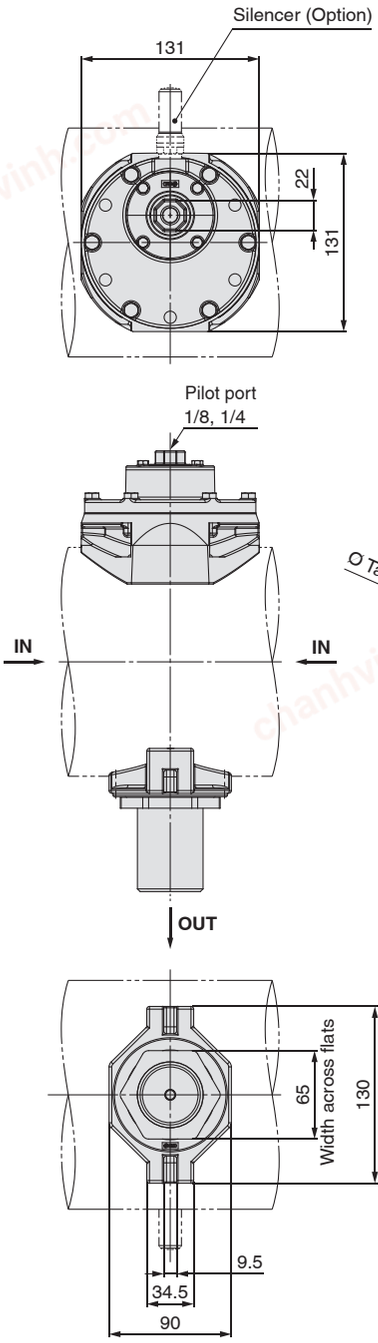




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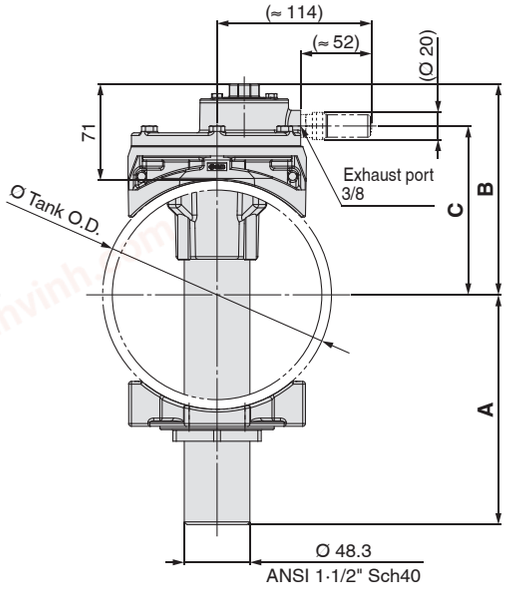
Dimensions: JSXFAH/Immersion Type

Port size 14





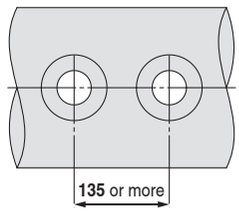
Port size 14



Recommended Tank Dimensions

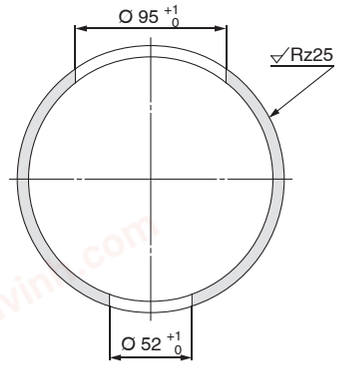
* The tank should be provided by the customer.

Tank hole pitch

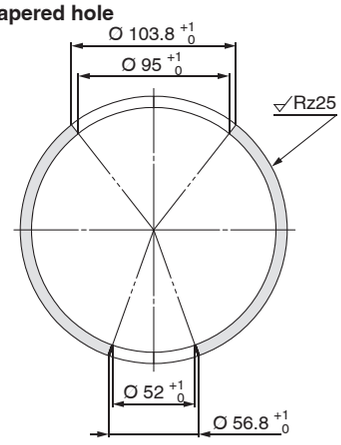


Tank hole machining

Straight hole

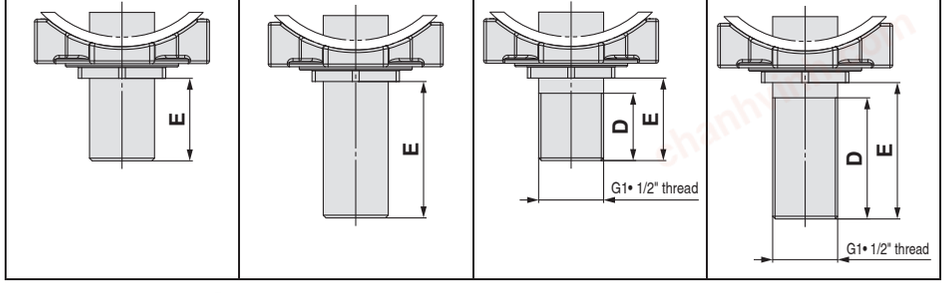


Tapered hole



Dimensions

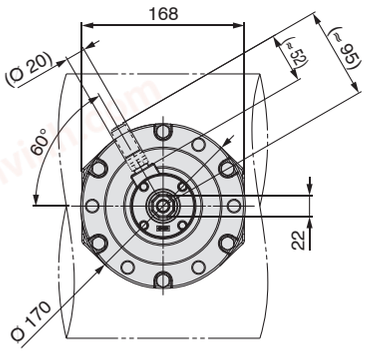
Tank size	Tank O.D. O	B	C	OUT port piping configuration											
				1			2			3			4		
				A	D	E	A	D	E	A	D	E	A	D	E
6 inch (ANSI 6")	168.3 +1.6 −0.8	155	124	169 ±5	—	61	209 ±5	—	101	169 ±5	50	61	209 ±5	90	101
8 inch (ANSI 8")	219.1 +1.6 −0.8	181	150	198 ±5		65	258 ±5		125	198 ±5	50	65	258 ±5	110	125



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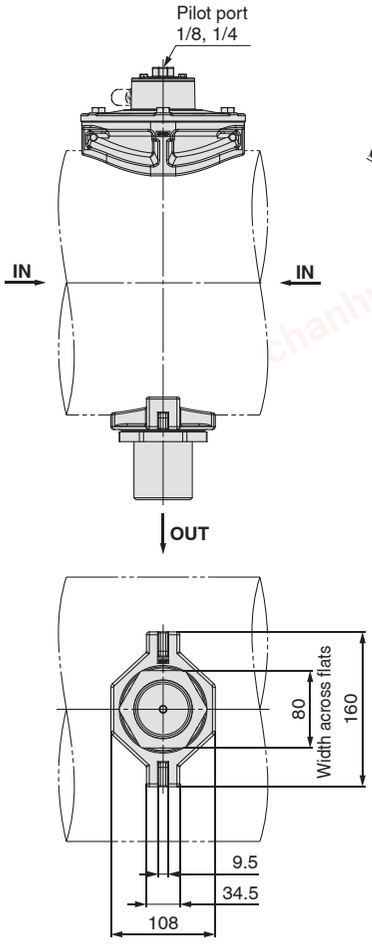
Dimensions: JSXFAH/Immersion Type

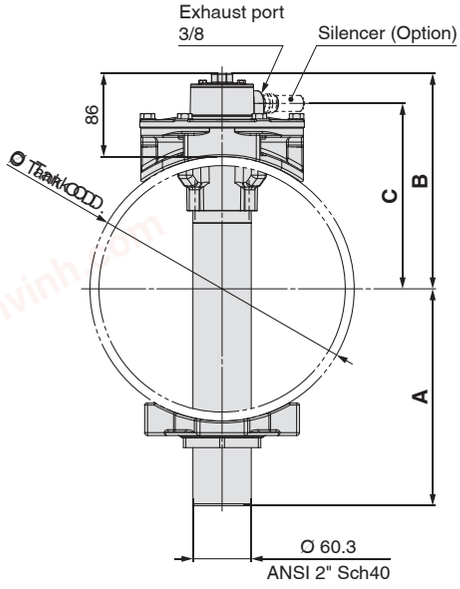
Port size 20





Port size 20

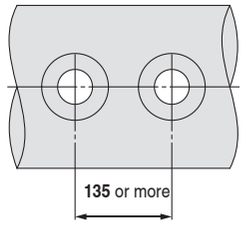




Recommended Tank Dimensions

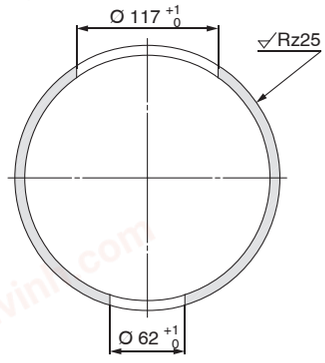
∗ The tank should be provided by the customer.

Tank hole pitch

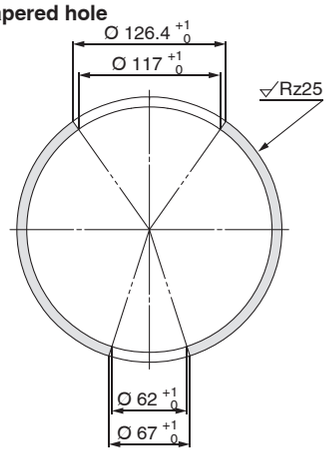


Tank hole machining

Straight hole

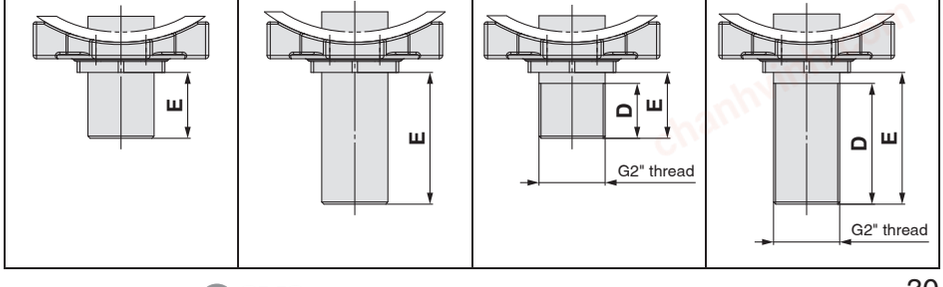


Tapered hole



Dimensions

Tank size	Tank O.D. Ø	B	C	OUT port piping configuration											
				1			2			3			4		
				A	D	E	A	D	E	A	D	E	A	D	E
8 inch (ANSI 8")	219.1 +1.6 −0.8	196	165	197 ±5	—	60	257 ±5	—	120	197 ±5	50	60	257 ±5	110	120
10 inch (ANSI 10")	273.1 +2.4 −0.8	223	192	224 ±5		60	284 ±5		120	224 ±5	50	60	284 ±5	110	120



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Replacement Parts (Air Operated Type/JSXFA)

Port size	Model	Replacement part number		
		Main valve assembly (Main valve + O-ring)	Sub-valve assembly (Sub-valve + O-ring)	Silencer
06	**JSXFA(E, F, H)□-06□-B-□**	JSXF-06B-KT	—	—
	JSXFA(E, F, H)□-06□-B-□A	JSXF-06B-A-KT	—	—
10	**JSXFA(E, F, H)□-10□-B-□**	JSXF-10B-KT	—	—
	JSXFA(E, F, H)□-10□-B-□A	JSXF-10B-A-KT	—	—
14	**JSXFA(E, F)□-14□-B-(S)□**	JSXF-14B-KT	JSXF-14B-KT2	Rc, G thread: AN30-03 NPT thread: AN30-N03
	JSXFAH□-14□-B-(S)□	JSXF-14B-1-KT		
20	**JSXFAH□-20□-B-(S)□**	JSXF-20B-KT	JSXF-14B-KT2	

Disassembly/Assembly Procedure

⚠Caution

1. Before disassembly, be sure to turn OFF the power supply and pressure supply, and then release the residual pressure.

Disassembly

1) Loosen the hexagon bolts, and remove the bonnet, O-ring, and the main valve (sub-valve).

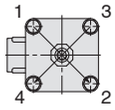
Assembly

1) Attach the main valve (sub-valve) to the body. The main valve (sub-valve) has a predetermined mounting direction.
Assemble the valve referring to Fig. 1.
If the valve is assembled incorrectly, it can cause a malfunction.
2) Mount the O-ring to the body groove. (See Fig. 2.)
After mounting the O-ring, check to make sure that the O-ring is fitted properly into the groove. If it is not in the groove, external leakage and/or operation failure may occur.
3) Attach the bonnet to the body.
4) Tighten the hexagon bolts diagonally.
(See Table 1 for the tightening torque.)

Table 1. Proper Tightening Torque [N·m]

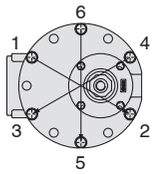
JSXFA□-06□		M8	12.5 to 13.8
JSXFA□-10□		M8	12.5 to 13.8
JSXFA□-14□	Main valve	M6	5.2 to 5.7
	Sub-valve	M4	1.5 to 1.7
JSXFA□-20□	Main valve	M8	12.5 to 13.8
	Sub-valve	M4	1.5 to 1.7

Port sizes 06, 10

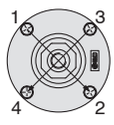


Main valve

Port sizes 14, 20



Sub-valve



Port sizes 06, 10

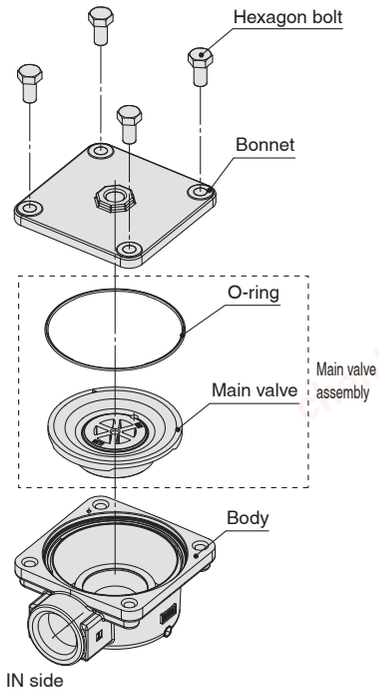
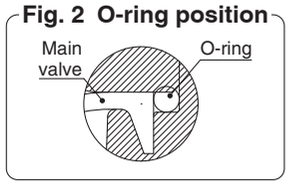


Fig. 2 O-ring position



Port sizes 14, 20

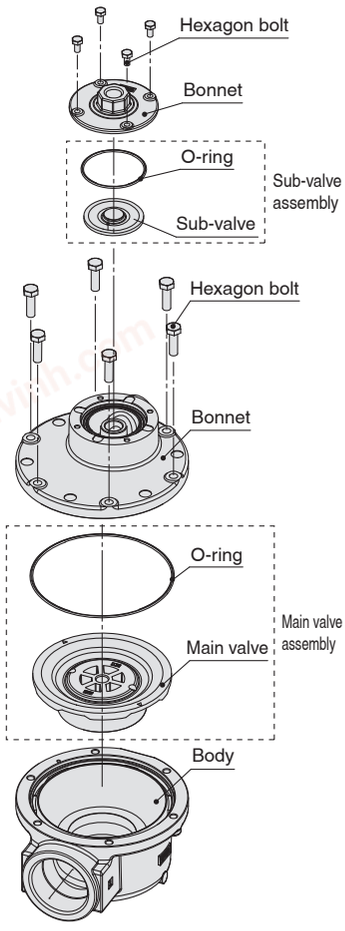
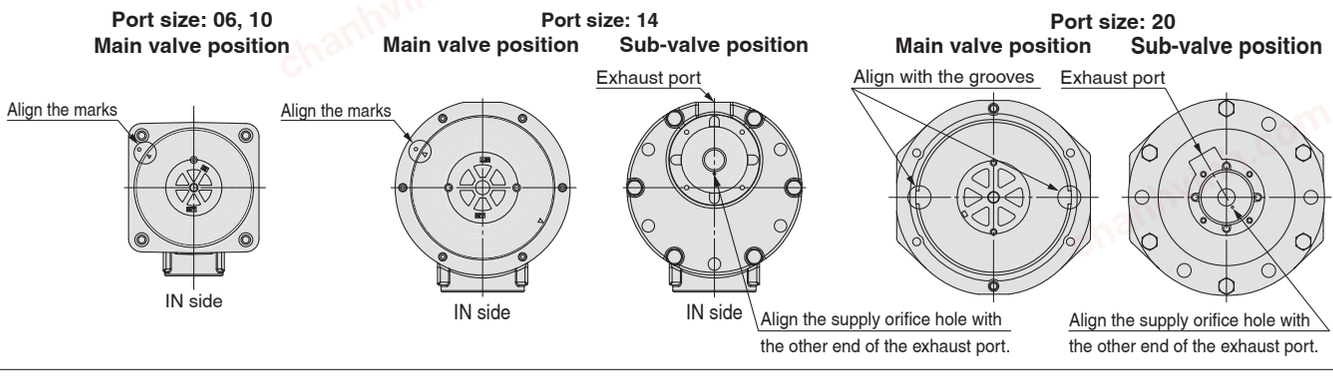


Fig. 1 Valve position



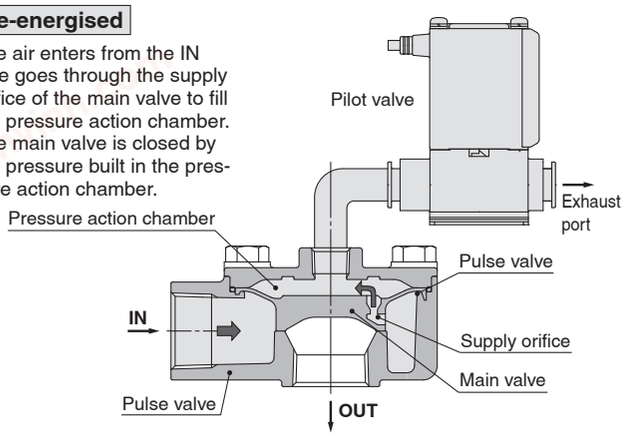
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JSXF/JSXFA Series
Working Principle

Port Sizes 06, 10

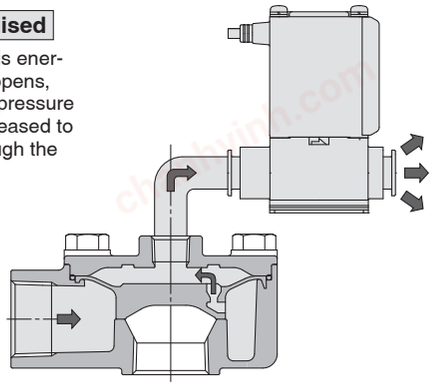
De-energised

The air enters from the IN side goes through the supply orifice of the main valve to fill the pressure action chamber. The main valve is closed by the pressure built in the pressure action chamber.



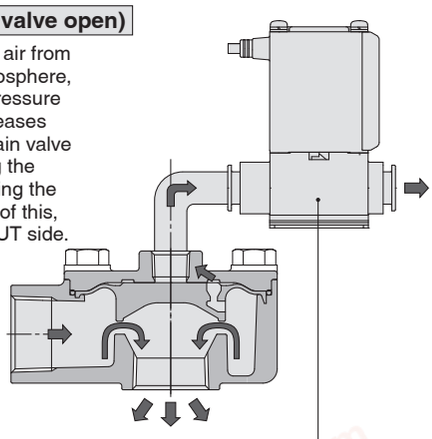
Right after energised

When the pilot valve is energised, the armature opens, and the air filling the pressure action chamber is released to the atmosphere through the pilot valve.



Energised (Main valve open)

Due to the release of air from the pilot valve to atmosphere, the pressure in the pressure action chamber decreases (force pushing the main valve down < force pushing the main valve up), opening the main valve. Because of this, the air flows to the OUT side.

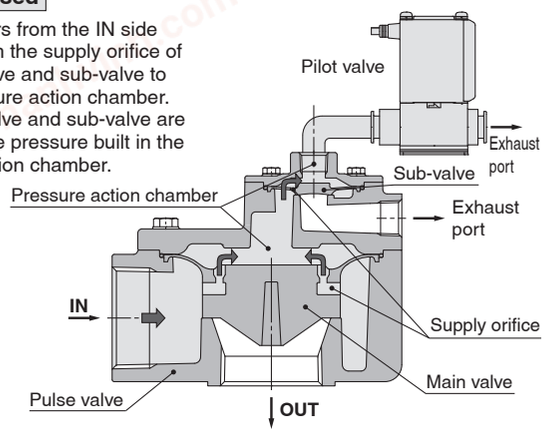


⚠Caution p. 21 Pilot Valve Selection

Port Sizes 14, 20

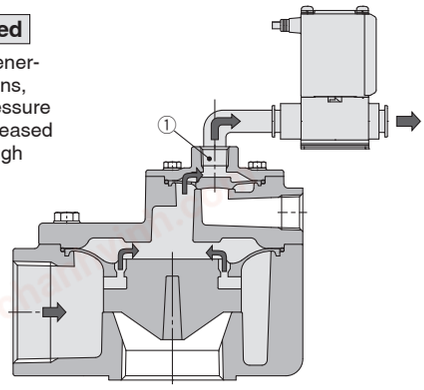
De-energised

The air enters from the IN side goes through the supply orifice of the main valve and sub-valve to fill the pressure action chamber. The main valve and sub-valve are closed by the pressure built in the pressure action chamber.



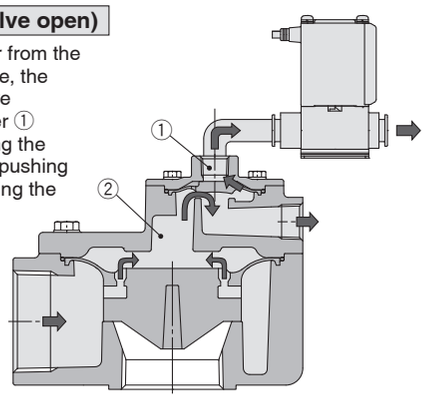
Right after energised

When the pilot valve is energised, the armature opens, and the air filling the pressure action chamber ① is released to the atmosphere through the pilot valve.



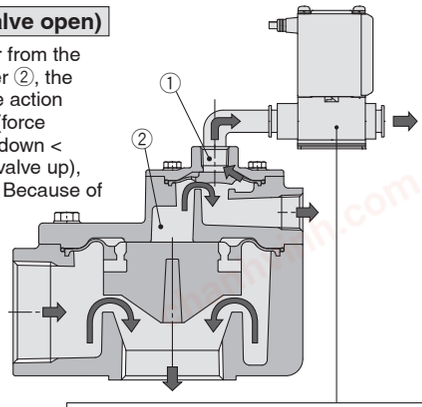
Energised (Sub-valve open)

Due to the release of air from the pilot valve to atmosphere, the pressure in the sub-valve pressure action chamber ① decreases (force pushing the sub-valve down < force pushing the sub-valve up), opening the sub-valve. Because of this, the air filling the pressure action chamber ② is released to the atmosphere from the exhaust port.



Energised (Main valve open)

Due to the release of air from the pressure action chamber ②, the pressure in the pressure action chamber ② decreases (force pushing the main valve down < force pushing the main valve up), opening the main valve. Because of this, the air flows to the OUT side of the pulse valve.



⚠Caution p. 21 Pilot Valve Selection

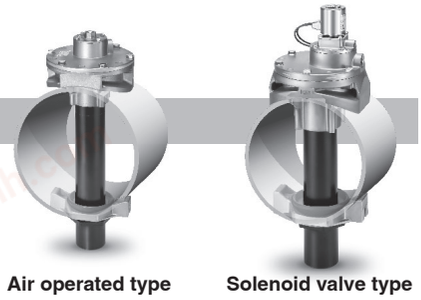
∗ The figure shows the JSXFAF.

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Immersion Type *JSXF/JSXFA* Series
Made to Order

Solenoid valve type only
For details, refer to ❻ below.

1 Tank Hole Diameter: Ø 76



Air operated type　　Solenoid valve type

How to Order

Solenoid Valve Type	JSXFH 6C – 14 N 1 – 5 G B – S
SMARTVENT Type	JSXFH 6C – 14 N 1 – 5 PR B – S 2
Air Operated Type	JSXFAH 6C – 14 N 1 – B – S 1

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

❶ Valve type

6C	6 inch Tank hole dia. Ø 76

❷ Port size

14	1 1/2 (40A)

❸ Thread type

N	NPT

❹ OUT port piping configuration

1	Short	Without
2	Long	
3	Short	With
4	Long	

❺ Rated voltage

AC

Symbol	Rated voltage
1	100 VAC
2	200 VAC
3	120 VAC (110 VAC)
4	220 VAC
7	240 VAC
J	230 VAC

DC

Symbol	Rated voltage
5	24 VDC

❼ Fluid and ambient temperatures

B	–40 to 60 °C

❽ Silencer

—	Without
S	With

❾ Pilot port size (Air operated type)

—	1/4
1	1/8

❾ Electrical entry (SMARTVENT type)

—	IN side
2	180° Inverted

It can be changed by the customer.
For details, refer to page 43.

The specifications and replacement parts are the same as those of the standard model.
Refer to pages 8 and 15 for the solenoid valve type, pages 18 and 20 for the SMARTVENT type, and pages 22 and 31 for the air operated type.
Add 140 g to the weight of each.

❻ Rated voltage (Solenoid valve type) Electric control (SMARTVENT type)

Symbol	Electrical entry		Voltage	Type
G	Grommet*1		24 VDC	Solenoid valve
GS	Grommet with PCB (With surge voltage suppressor)		100 VAC 24 VDC	
CS	Conduit (With surge voltage suppressor)		All voltages	
DS	DIN terminal (With surge voltage suppressor)		All voltages	
DZ	DIN terminal with light (With surge voltage suppressor)		All voltages	

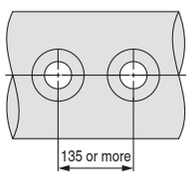
Symbol	Electrical entry		Voltage	Type
DN	DIN terminal without connector (With surge voltage suppressor)		All voltages	Solenoid valve
WN	M12 connector*2 (With surge voltage suppressor)		All voltages	
PP*3	Base, 3 holes*1		24 VDC	SMARTVENT
PB	Base, 2 holes*1		24 VDC	
PR	Remote, 2 holes*1		24 VDC	

*1 Only 24 VDC can be selected for the rated voltage.
*2 A cable for the M12 connector is not included with the product. Refer to "Option" on page 16 to order it separately.
*3 When using a differential pressure sensor (provided by the customer), select PP for the base valve. Use a 2-wire type 4 to 20 mA specification differential pressure sensor.

Recommended Tank Dimensions

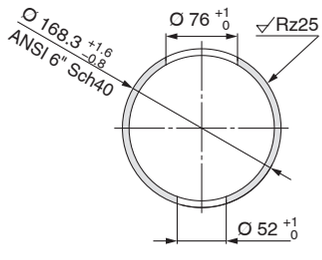
* The tank should be provided by the customer.

Tank hole pitch

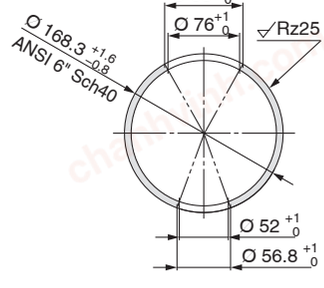


Tank hole machining

Straight hole



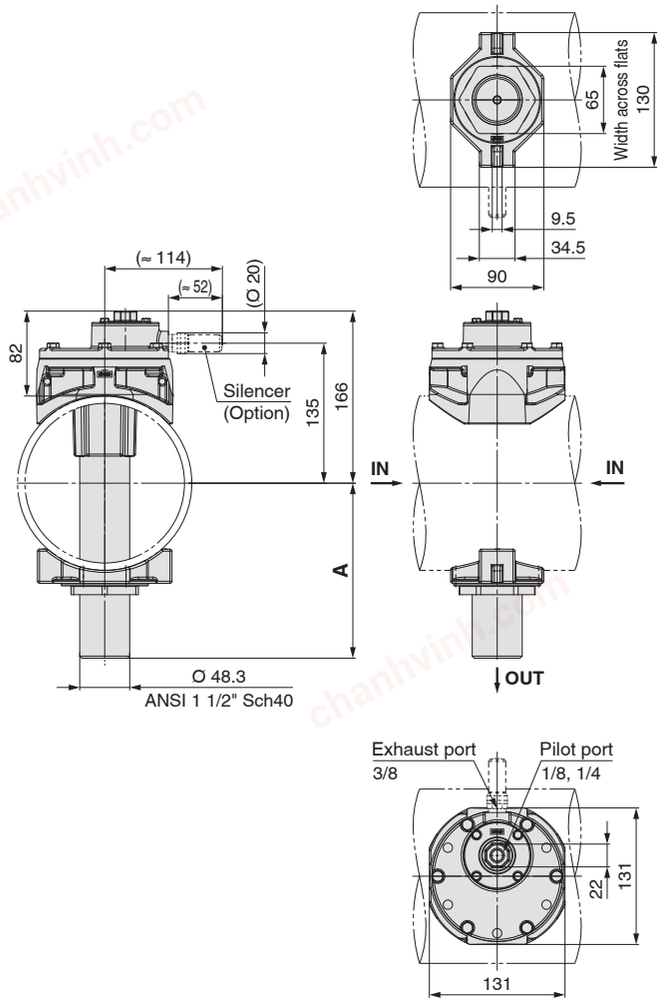
Tapered hole



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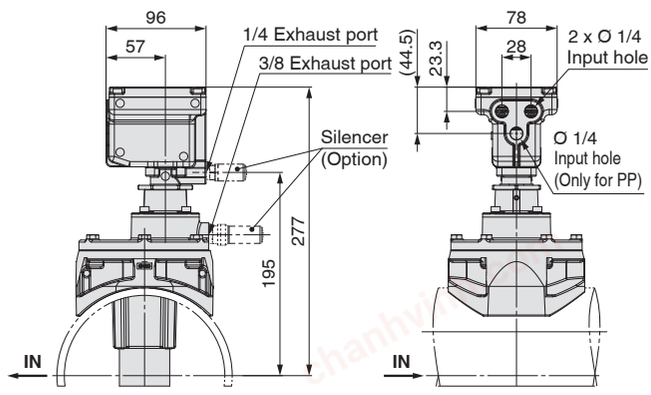
Dimensions

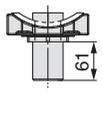
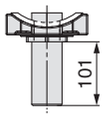
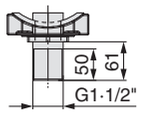
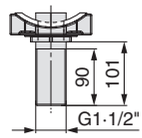
Air Operated Type



SMARTVENT Type

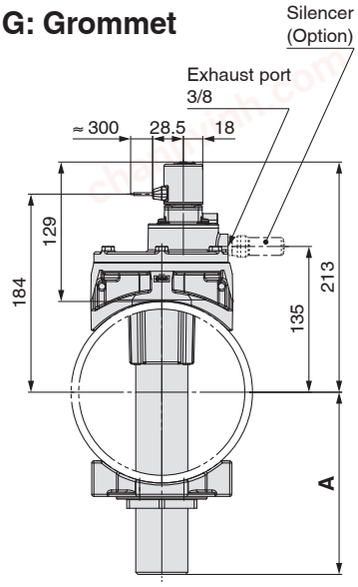
Dimensions other than those shown below are the same as those of the air operated type.



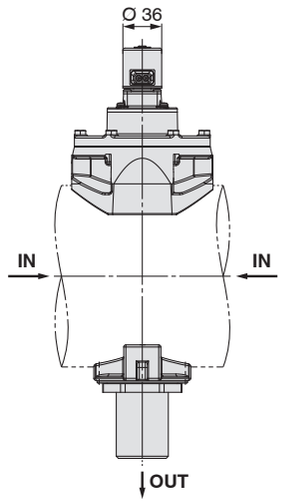
Dimensions	OUT port piping configuration			
	1	2	3	4
A	169 ±5	209 ±5	169 ±5	209 ±5
				

Solenoid Valve Type

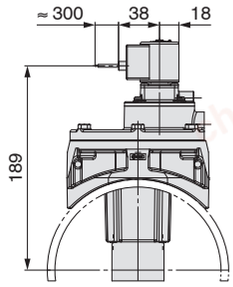
G: Grommet



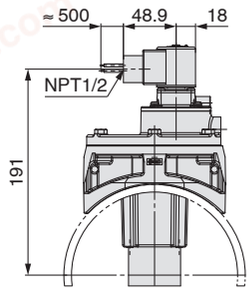
Dimensions other than those shown below are the same as those of the air operated type.



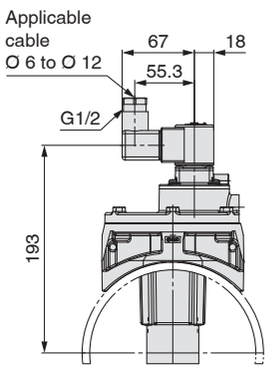
GS: Grommet with PCB



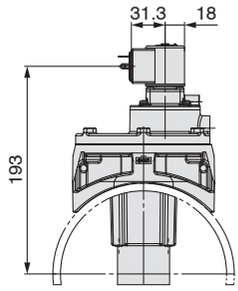
CS: Conduit



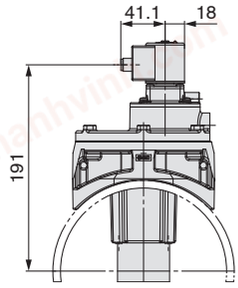
DS: DIN terminal
DZ: DIN terminal with light



DN: Without DIN connector



WN: M12 connector



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ATEX Compliant Pulse Valve Valve for Dust Collector

Solenoid Valve Type

56-JSXF Series

RoHS

II 3 G Ex ec h IIB T3 Gc
II 3 D Ex h tc IIIB T161 °C Dc
–20 °C ≤ Ta ≤ +60 °C


Compression fitting type

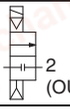

Direct piping type


Immersion type

How to Order

Compression	56	– JSXF		E		– 06	F		– 5	DS	B	– S		
Direct Piping	56	– JSXF		F		– 06	F		– 5	DS	B	– S		
Immersion	56	– JSXF		H	4	– 06	F	1	– 5	DS	B	– S		
	ATEX category 3		❶	❷	❸	❹	❺	❻	❼	❽	❾	❿		

❶ Valve type

—	Solenoid valve	 1 (IN) 2 (OUT)

❸ Tank size (JSXFH only)

4	4 inch
5	5 inch
6	6 inch
6C	6 inch (Ø 76 hole)
8	8 inch
10	10 inch

❹ Port size*1

06	3/4 (20A)
10	1 (25A)
14	1 1/2 (40A)
20*2	2 (50A)

*1 For port size selection, refer to the "Variations for Port Size and Option" table below.
*2 Port size 2 0 is only available for the JSXFH.

❷ Piping

			Ground terminal*3
E	Compression fitting type*1		Yes 
F	Direct piping type		
H	Immersion type*2		

*1 Seals and washers are included.
*2 The valve and pipe do not come assembled.
*3 A ground terminal is included.

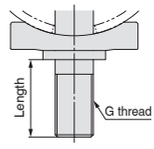
❺ Thread type

R	Rc
N	NPT
F	G

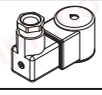
❼ Rated voltage

Symbol	Rated voltage
5	24 VDC

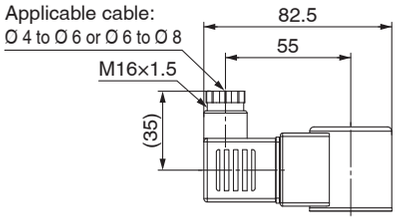
❻ OUT port piping configuration (JSXFH only)

Symbol	Length	G thread	Appearance
1	Short	None	
2	Long		
3	Short	Yes	
4	Long		

❽ Electrical entry

Symbol	Electrical entry	
DS	DIN terminal (With surge voltage suppressor)	

DIN connector dimensions



Dimensions other than those shown above are the same as those of the standard type. Refer to pages 11 to 14.

❾ Fluid and ambient temperatures

B	–20 to 60 °C

❿ Silencer

—	Without
S	With

Shipped together with the product

The replacement parts are the same as those for the standard solenoid valve type.
Refer to page 15 for details.
The solenoid coil cannot be replaced.

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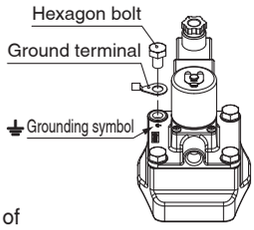
Specifications

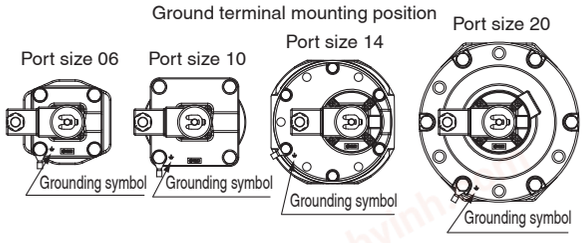
⚠ Caution

Ground terminal (56-)

Be sure to connect the included ground terminal to the hexagon bolt.

- Connect at the point indicated by the grounding symbol.
- Refer to page 15 for the tightening torque.
- Be sure to periodically inspect the hexagon bolt for loosening, and tighten it as necessary.
- A wire with a conductor cross section of 4 to 6.64 mm² is recommended for wiring.





Common Specifications

Valve specifications	Valve construction		Pilot operated diaphragm
	Valve type		Normally closed (N.C.)
	Fluid		Air
	Withstand pressure	[MPa]	1.5
	Min. operating pressure differential	[MPa]	0.1
	Max. operating pressure differential	[MPa]	0.9
	Max. system pressure	[MPa]	0.9
	Fluid temperature	[°C]	–20∗1 to 60
	Ambient temperature	[°C]	–20 to 60
	Enclosure		IP65∗2
Coil specifications	Allowable voltage fluctuation		±10 % of the rated voltage
	Allowable leakage voltage		2 % or less of the rated voltage
	Power consumption∗3	[W]	18

∗1 No condensation

∗2 If water enters the product, it may result in operation failure or breakage. Therefore, take appropriate measures to prevent water from entering the product when used in an environment where it is constantly exposed to water.

∗3 Power consumption/Apparent power: The value at an ambient temperature of 20 °C and when the rated voltage is applied (Variation: ±10 %)

Be sure to read "Specific Product Precautions" before handling.

Variations for Port Size and Option

Model	Tank size	Port size			
		06	10	14	20
56-JSXFE	—	●	●	●	—
56-JSXFF	—	●	●	●	—
56-JSXFH	4 inch	●	—	—	—
	5 inch	●	●	—	—
	6 inch	—	●	●	—
	6 inch (Ø 76)	—	—	●	—
	8 inch	—	—	●	●
	10 inch	—	—	—	●
Silencer		●	●	●	●

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ATEX Compliant Pulse Valve Valve for Dust Collector

Air Operated Type

55-JSXFA Series

RoHS

II 2 G Ex h IIB T6 Gb
II 2 D Ex h IIIB T72 °C Db
−40 °C ≤ Ta ≤ +60 °C


Compression fitting type

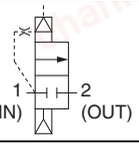

Direct piping type


Immersion type

How to Order

Compression	55	−	JSXF	A	E		−	06	R		−	B	−			1
Direct Piping	55	−	JSXF	A	F		−	06	F		−	B	−			1
Immersion	55	−	JSXF	A	H	4	−	06	F	1	−	B	−			1
	ATEX category 2			❶	❷	❸		❹	❺	❻		❼		❽		❾

❶ Valve type

A	Air operated	

❷ Piping

E	Compression fitting type*1	
F	Direct piping type	
H	Immersion type*2	

*1 Seals and washers are included.
*2 The valve and pipe do not come assembled.

❸ Tank size (JSXFAH only)

4	4 inch
5	5 inch
6	6 inch
6C	6 inch (Ø 76 hole)
8	8 inch
10	10 inch

❹ Port size*1

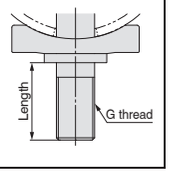
06	3/4 (20A)
10	1 (25A)
14	1 1/2 (40A)
20*2	2 (50A)

*1 For port size selection, refer to the "Variations for Port Size and Option" table below.
*2 Port size 20 is only available for the JSXFH.

❺ Thread type

R	Rc
N	NPT
F	G

❻ OUT port piping configuration (JSXFAH only)

Symbol	Length	G thread	Appearance
1	Short	None	
2	Long		
3	Short	Yes	
4	Long		

❼ Fluid and ambient temperatures

B	−40 to 60 °C

❽ Silencer (Only port size 14 and 20 can be selected.)

—	Without
S	With

Shipped together with the product

❾ Pilot port size

—	1/4
1	1/8

Made to Order

Pilot valve orifice diameter: Special specification

A	For Ø 3 mm to Ø 5 mm	Port size: 06, 10

55-JSXFA □-□□-B-□□A

Enter the standard product number.

Variations for Port Size and Option

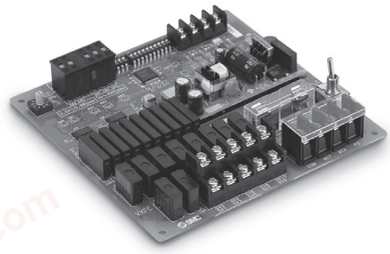
Model	Tank size	Port size 06	10	14	20
55-JSXFAE	—	●	●	●	—
55-JSXFAF	—	●	●	●	—
55-JSXFAH	4 inch	●	—	—	—
	5 inch	●	●	—	—
	6 inch	—	●	●	—
	6 inch (Ø 76)	—	—	●	—
	8 inch	—	—	●	●
	10 inch	—	—	—	●
Pilot valve orifice		●	●	—	—
Silencer		—	—	●	●

The specifications, dimensions, replacement parts, and pilot valve selection are the same as those of the standard product. Refer to pages 21 to 31 for details.

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Dedicated Controller for Operation
VXFC Series

Excludes the VXFC□A



How to Order Controller

VXFC 06 D

Number of output points

06	6 output points
10	10 output points

Voltage

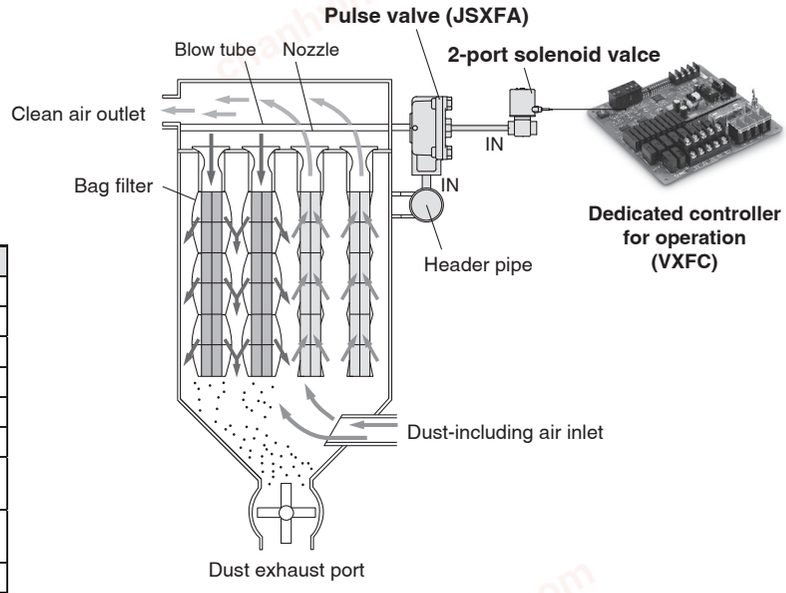
D	24 to 48 VDC
D-6	12 VDC
A*1	85 to 240 VAC

*1 "A" is not a CE/UKCA marked product.

Specifications

Model		$VXFC^{06}_{10}A$	$VXFC^{06}_{10}D$	$VXFC^{06}_{10}D$-6
Input voltage		85 to 240 VAC	24 to 48 VDC	12 VDC
Output voltage		Same as input voltage		
Time setting	ON	0.01 to 0.99 s		
	OFF	0 to 299 s		
	Time accuracy	±2 %		
Number of outputs		6 to 10 points		
Operating ambient temperature		0 to 50 °C (No condensation)		
Operating ambient humidity		45 to 80 % (No condensation)		
Output current		0.5 A or less	0.5 A or less	0.5 A or less
Power supply fuse		3 A	1 A	1 A

[Application example]

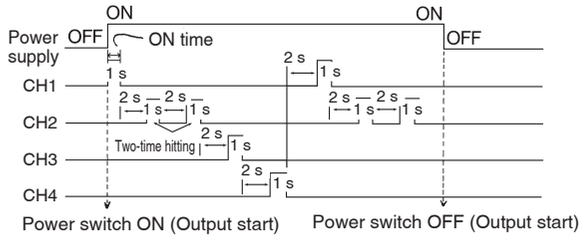


Two-time Hitting Function

A two-time hitting function has been adopted to improve the bag filter dusting efficiency. Turn ON the DIP switch for two-time hitting (OFF for one-time hitting).
(Effective for up to the number of set channels)

Operation sequence diagram

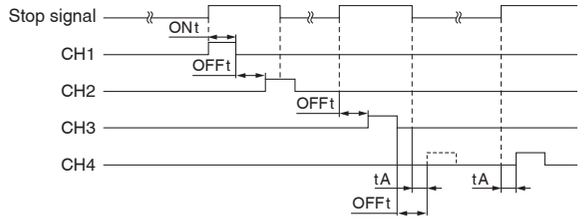
For { 4 output points; Two-time hitting only for CH2; ON for 1 s; OFF for 2 s }



Interrupt Operation Function

Interrupting an operation via an external switch is possible using input signals.

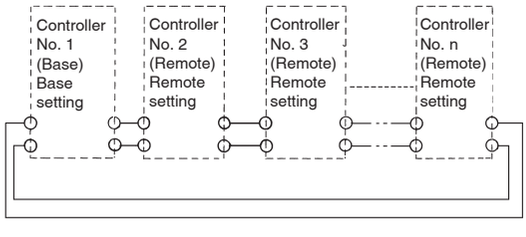
Operation sequence diagram



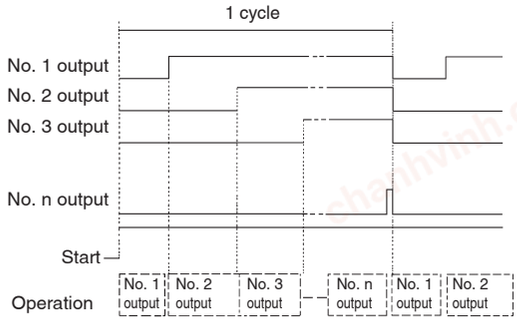
Cascade Connection (Multiple-board connection)

VXFC10: One board only allows 10 output points max., but the points can be increased to 20 or 30 output points by connecting cascades.

Connection

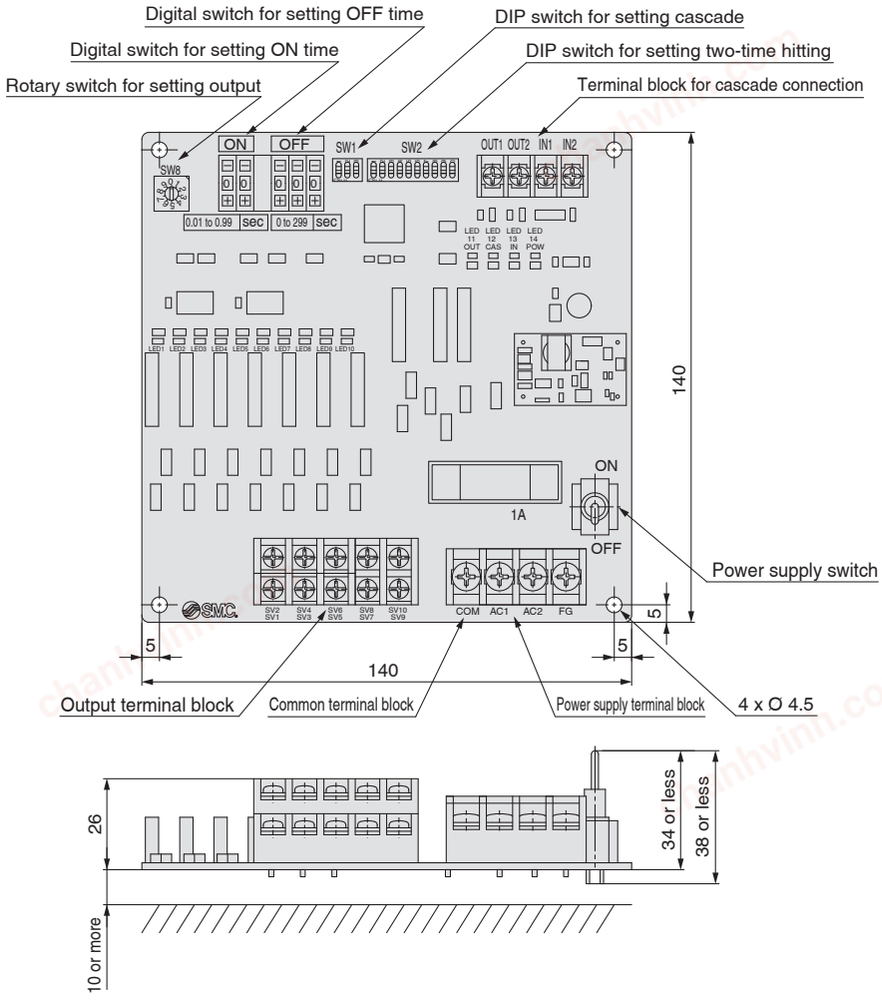


Operation sequence diagram



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Dimensions



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JSXF/JSXFA Series
Glossary of Terms

Pressure Terminology

1. Max. operating pressure differential

The max. pressure differential (the difference between the inlet and outlet pressure) which is allowed for operation. When the outlet pressure is 0 MPa, this becomes the max. operating pressure.

2. Min. operating pressure differential

The min. pressure differential (the difference between the inlet pressure and outlet pressure) required to keep the main valve fully open.

3. Max. system pressure

The max. pressure that can be applied inside the pipelines (line pressure).
[The pressure differential of the solenoid valve portion must not exceed the max. operating pressure differential.]

4. Withstand pressure

The pressure in which the valve must be withstood without a drop in performance after holding for one minute under prescribed pressure and returning to the operating pressure range. (value under the prescribed conditions)

Electrical Terminology

1. Apparent power (VA)

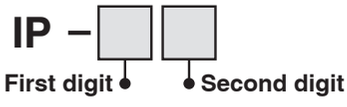
Volt-ampere is the product of voltage (V) and current (A).
Power consumption (W): For AC, $W = V \cdot A \cdot \cos\theta$.
For DC, $W = V \cdot A$.
∗ $\cos\theta$ shows power factor. $\cos\theta \approx 0.9$

2. Surge voltage

A high voltage which is momentarily generated by shutting off the power in the shut-off area.

3. Degrees of protection

A degree defined in the "JIS C 0920: Waterproof test of electric machinery/appliance and the degree of protection against the intrusion of solid foreign objects."



● **First Digit:**
Degree of protection against solid foreign objects

0	Not protected
1	Protected against solid foreign objects of 50 mmO and larger
2	Protected against solid foreign objects of 12 mmO and larger
3	Protected against solid foreign objects of 2.5 mmO and larger
4	Protected against solid foreign objects of 1.0 mmO and larger
5	Dust protected
6	Dust-tight

● **Second Digit:**
Degree of protection against water

0	Not protected	—
1	Protected against vertically falling water droplets	Dripproof type 1
2	Protected against vertically falling water droplets when enclosure is tilted up to 15°	Dripproof type 2
3	Protected against rainfall when enclosure is tilted up to 60°	Rainproof type
4	Protected against splashing water	Splashproof type
5	Protected against water jets	Water-jet-proof type
6	Protected against powerful water jets	Powerful water-jet-proof type
7	Protected against the effects of temporary immersion in water	Immersible type
8	Protected against the effects of continuous immersion in water	Submersible type

Others

1. Material

NBR: Nitrile rubber
FKM: Fluororubber
EPDM: Ethylene propylene rubber

2. Symbol

In the symbol (), when the valve is closed, flow is blocked from port 1 to port 2. However, if the pressure in port 2 is higher than port 1, the valve will not be able to block the fluid and it will flow from port 2 to port 1.

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JSXF/JSXFA Series
Specific Product Precautions 1

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

Design

⚠Warning

1. Confirm the specifications.
Give careful consideration to the operating conditions, such as the application, fluid, and environment, and use within the specified operating ranges. If the product is used beyond the specification range, this may cause the product to break or malfunction. We do not guarantee against any damage if the product is used outside of the specification range.

2. Cannot be used as an emergency shutoff valve, etc.
This product is not designed for use as an emergency shutoff valve or for use in other safety applications. If the valves are used in this type of system, other reliable safety assurance measures should also be adopted.

3. Cannot be used for pressure (including vacuum) holding
This product is not suitable for holding the pressure (including vacuum) inside of a pressure vessel because air leakage is unavoidable.

4. Extended periods of continuous energization
1) This is a valve for pulse operation. Do not energise it continuously. Since it consumes a large amount of air, the valve will oscillate (chatter) due to insufficient air supply on the inlet side, and this can lead to failure.
2) As the coil becomes hot when energised, set the energising time to 1 s or less and the de-energising time to at least twice the energising time. Furthermore, do not touch the coil while it is being energised or right after it has been energised.

5. Reverse pressure
If there is a possibility that reverse pressure will be applied, take countermeasures by installing a check valve, etc., on the downstream side.

6. Do not disassemble the product and replacement parts, and do not make any modifications, including additional machining.
Doing so may result in human injury and/or an accident.

Operating Environment

⚠Warning

Do not use the product in such locations as those described below.

1. Locations with atmospheres where water vapour is present or locations where corrosive fluids (chemicals), sea water, or water may come into contact with the product
Implement appropriate protective measures if the product will be in contact with water for long periods of time, even for products which have IP65 or IP67 enclosures. Such water may enter through microscopic gaps in the product's external surfaces, resulting in fire damage or short-circuiting of the solenoid valve coils. If installing the product in close proximity to equipment such as machine tools, processing machines, etc., which use large amounts of liquids or oils, be sure to confirm that liquid dispersal or spatter from the peripheral equipment does not come into contact with the product.

2. Locations with explosive atmospheres
If the product is to be used in an explosive atmosphere, use the 56-JSXF (page 35) or the 55-JSXFA (page 37). Standard products without the "56-" or "55-" prefix cannot be used in explosive atmospheres.

3. Locations subject to vibration or impact

4. Locations where radiated heat will be received from nearby heat sources

5. Locations where freezing may occur within piping lines
1) The product can be used in ambient and fluid temperatures as low as –40 °C. However, take measures to prevent the freezing or solidification of impurities, etc.
2) If the dew point temperature is high and the ambient temperature is low, or a large flow is being used, this may cause freezing. Be sure to periodically drain the product, or conduct drain removal using an air dryer, and retain the heat of the body.

Fluid

⚠Warning

1. Take measures to prevent static electricity since some fluids generate static electricity.

2. Fluid temperature
Operate within the specified operating fluid temperature range.

3. Install a filter to ensure clean fluids.
1) The use of a fluid that contains foreign matter may result in the accelerated wear of the valve seat and armature as well as a malfunction or seal failure caused by the foreign matter adhering to the sliding parts of the armature. Install a filter of 5 μm or less on the upstream side of the valve to remove foreign matter.
2) Replace or clean the filter when the pressure drop reaches 0.1 MPa to prevent it from getting clogged.

Fluid Quality

⚠Warning

1. Air
1) Do not use compressed air that contains chemicals, synthetic oils that include organic solvents, salt, corrosive gases, etc., as it can cause a malfunction or damage.
2) Compressed air that contains excessive drainage may cause the malfunction of valves and other pneumatic equipment. Install an aftercooler or an air dryer on the inlet side of the valve to prevent drainage.
3) If excessive carbon powder is generated by the compressor, it may adhere to the inside of the valves and cause a malfunction. Install a mist separator on the inlet side of the valve to remove any carbon powder.
4) For compressed air quality, refer to the Best Pneumatics No. 6 catalog.
5) When air with a dew point of –70 °C or lower is used, it may cause the accelerated wear of the inside of the valve, shortening the life of the product.

Mounting

⚠Warning

1. Ensure sufficient space for maintenance and inspection.
In addition, when using a silencer, ensure sufficient space to replace the silencer.

2. When mounting the product, avoid sources of vibration, or change the mounting method to avoid resonance.

3. Do not install the product near a heat source. Be sure to install it in a location where the product will not be affected by radiant heat.

4. If air leakage increases or equipment does not operate properly, stop operation.
After installation or maintenance, check that the product is correctly mounted with appropriate functional and leakage inspections by supplying compressed air and power. Do not use the product if the equipment fails to operate correctly.

5. Do not touch the valve while it is being energised or right after it has been energised.
Valves will reach high temperatures after operation. Use caution as burns may be incurred if a hot valve is touched directly.

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JSXF/JSXFA Series
Specific Product Precautions 2

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

Mounting

⚠Warning

6. Do not apply external force to the coil section.
When the product is installed, apply a wrench to the outside of the piping connection while making sure that it does not come into contact with the coil.

7. Do not warm the coil section with a heat insulator, etc.
When insulation is used to prevent freezing, the insulation should be limited to the piping and body only. Do not insulate the coil. This can cause the coil to burn out.

⚠Caution

1. Installation of regulators and restrictors
If a regulator or restrictor is installed immediately before the inlet side of the valve or immediately after the outlet side of the valve, the valve will oscillate (chatter), resulting in a malfunction.
Install it away from the valve or change the restriction amount.

2. Install a header tank of sufficient capacity on the inlet side of the valve.
This product is a large flow valve, so if the tank capacity is small, valve opening failure or valve oscillation (chattering) may occur due to pressure drop or insufficient air supply, resulting in a malfunction.

3. Painting and coating
Warnings or specifications printed or labeled on the product should not be erased, removed, or covered up.

Piping

⚠Warning

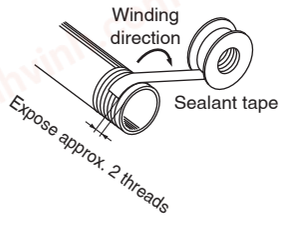
1. There may be cases in which the tubing detaches from the fitting and thrashes around uncontrollably due to tubing degradation or fitting breakage. To prevent this, fit the tubing with a protective cover or secure it in place.

⚠Caution

1. For handling One-touch fittings, refer to the "Fittings and Tubing Precautions" in the Handling Precautions for SMC Products.

2. Preparation before piping
Before piping is connected, it should be thoroughly blown out with air (flushing) or washed to remove chips, cutting oil, and other debris from inside the pipe. Install piping so that it does not apply pulling, pressing, bending, or other forces on the valve body.

3. Winding of sealant tape
When connecting pipes, fittings, etc., do not allow any chips from the pipe threads and sealing material to enter the valve. Furthermore, when sealant tape is used, leave 1.5 to 2 thread ridges exposed at the end of the threads.



4. When using a fitting other than an SMC fitting
Follow the instructions given by the fitting manufacturer.

5. Avoid connecting ground lines to piping as this may cause the electric corrosion of the system.

6. When connecting piping to a product, avoid mistakes regarding the supply port, etc.

Piping

Direct Piping Type Piping Precautions

⚠Caution

1. Use steel tubes for the inlet and outlet piping of the valve.

2. Screw tightening torque for piping
When attaching fittings to valves, tighten within the tightening torque range shown below.

Tightening Torque for Piping

Connection thread	Proper tightening torque [N·m]
1/4	8 to 12
3/8	15 to 20
1/2	20 to 25
3/4	28 to 30
1	36 to 38
1 1/2	40 to 42

Compression Fitting Type Piping Precautions

⚠Warning

Do not use the compression fitting to support the valve piping. The piping could disconnect from the valve. Be sure to mount the valve to secured piping. (Compression fittings do not have a valve-holding function.)

⚠Caution

1. Use steel tubes for the inlet and outlet piping of the valve.

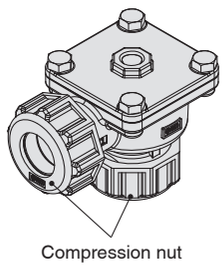
2. Tightening of the compression nut
Be sure to tighten the compression nut sufficiently to prevent the nut from loosening and leakage from occurring.

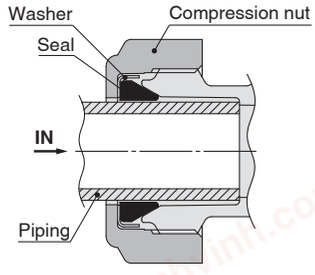
Wrench Tightening Angle after Hand-tightening (Guide for tightening the nut)

Size	Wrench tightening angle
3/4 (20A)	90° to 270°
1 (25A)	135° to 315°
1 1/2 (40A)	150° to 330°

- **Mount the valve to secured piping.**
- **Insert the piping until it stops to prevent the piping from going in at an angle.**
- **Do not expose the piping to oil or moisture. Otherwise, the valve may come off easily.**
- **Sealing performance will decrease due to the deterioration of the seals. Tighten the compression nut regularly.**

Cross section of the nut





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JSXF/JSXFA Series
Specific Product Precautions 3

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

Piping

Immersion Type Piping Precautions

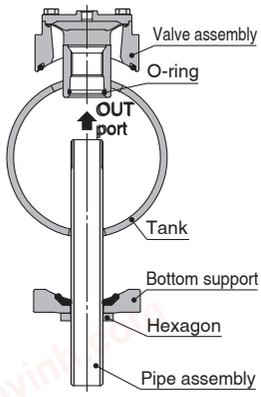
⚠Caution

Installation of the immersion type

Refer to the figures below when installing the valve on a tank provided by the customer.

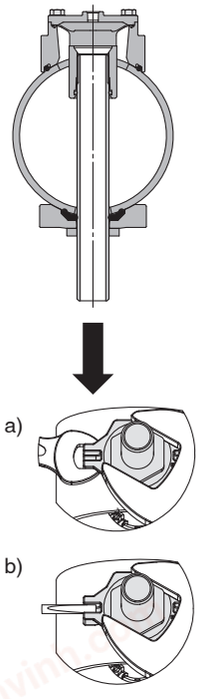
Tighten and check the pipe assembly sufficiently to prevent leakage, looseness, and play.

Step 1) Insert the pipe assembly into the OUT port of the valve assembly and screw it in vertically. (Inserting the pipe at an angle may damage the O-ring inside the valve.)



Step 2) Continue tightening the pipe assembly until the body and the bottom support touch the tank.

1. Tighten with a wrench or other tool so that the bottom support does not rotate. Refer to a). (It can also be secured like in b).) When securing, align the tank with the curved surface of the bottom support.
2. Tighten the hexagonal part of the pipe assembly with a wrench.



Pipe Assembly Tightening Guide (Tightening torque)

Size	Tightening torque [N·m]
3/4 (20A)	30
1 (25A)	50
1 1/2 (40A)	50
2 (50A)	120

* Excessive tightening may damage the valve or deform or damage the tank.
* The pipe assembly may become loose due to vibration when discharging air. Be sure to perform periodic retightening.
* The recommended tank is the ANSI Sch40. If making your own tank, ensure that it has sufficient strength to prevent it from becoming deformed when the valve is being screwed in.

SMARTVENT Type Piping Precautions

⚠Caution

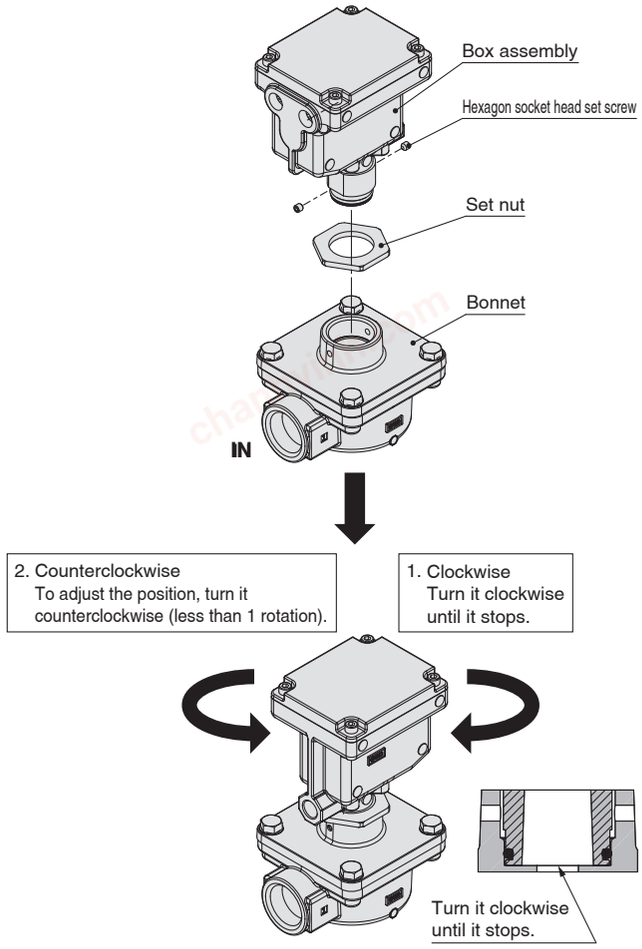
How to change the electrical entry direction

To change the electrical entry direction by yourself when piping, refer to the illustration below.

Before disassembly, be sure to turn OFF the power supply and pressure supply, and then release the residual pressure.

Step 1) Disassembly

1. Loosen the set nut and remove the two hexagon socket head set screws so the box assembly can be rotated.



Step 2) Assembly

1. Turn the box assembly clockwise until it stops.
2. Turn the box assembly counterclockwise to the desired position.
   Caution: Be sure to only turn it less than 1 rotation after it has stopped.
3. Tighten the set nut and then the hexagon socket head set screws. Refer to the table below for the tightening torque.

Table 1

Description	Size	Proper tightening torque
Set nut	Width across flats 46 mm	50 N·m
Hexagon socket head set screw	M5	1.35 to 1.65 N·m

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JSXF/JSXFA Series
Specific Product Precautions 4

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

Wiring

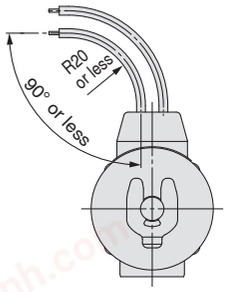
⚠ Warning

The solenoid valve is an electrical product. For safety, install an appropriate fuse and circuit breaker before use.
When using multiple solenoid valves, it is not sufficient to merely install one fuse. For protecting the equipment more safely, select an appropriate fuse to each circuit of the solenoid valve.

⚠ Caution

1. As a rule, use electrical wire with a cross sectional area of 0.5 to 1.25 mm² for wiring.

2. External force applied to the lead wire
If an excessive force is applied to the lead wire, this may cause faulty wiring. Take appropriate measures so that a force of 10 N or more is not applied to the lead wire. Do not bend the lead wires beyond 90° with a radius of less than 20 mm or damage may occur.



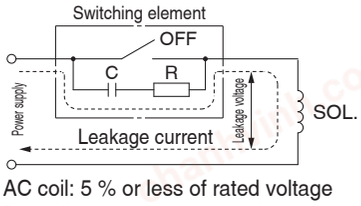
3. Use electrical circuits which do not generate chattering in their contacts.

4. Use voltage which is within ±10 % of the rated voltage. In cases with a DC power supply where importance is placed on responsiveness, stay within ±5 % of the rated value. The voltage drop is the value in the lead wire section connecting the coil.

5. When a surge from the solenoid affects the electrical circuitry, install a surge voltage suppressor, etc., in parallel with the solenoid. Or, use the product with a surge voltage suppressor.

Residual voltage of the surge voltage suppressor
DC specification: Approx. 60 V
AC specification: Approx. 1 V

6. Leakage voltage
When the solenoid valve is operated using the controller, etc., the leakage voltage should be the product allowable leakage voltage or less. Particularly when using a resistor in parallel with a switching element and using a C-R element to protect the switching element, take note that leakage current will flow through the resistor, C-R element, etc., creating a possible danger that the valve may not turn off.



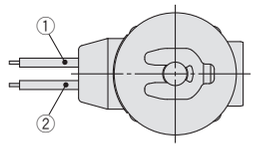
AC coil: 5 % or less of rated voltage
DC coil: 2 % or less of rated voltage

Electrical Connections

⚠ Caution

1. Grommet
Lead wire: AWG20 Insulator O.D.: 2.6 mm

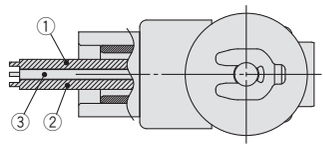
Rated voltage	Lead wire colour	
	①	②
DC	Black	Red
100 VAC	Blue	Blue
200 VAC	Red	Red
Other AC	Gray	Gray



∗ There is no polarity.

2. Conduit
Lead wire: AWG18 Insulator O.D.: 2.8 mm

Rated voltage	Lead wire colour		
	①	②	③
DC	Black	Red	Green/Yellow
100 VAC	Blue	Blue	Green/Yellow
200 VAC	Red	Red	Green/Yellow
Other AC	Gray	Gray	Green/Yellow



∗ There is no polarity.
∗ ③: Ground wire

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JSXF/JSXFA Series
Specific Product Precautions 5

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

Electrical Connections

⚠ Caution

3. DIN terminal

Disassembly

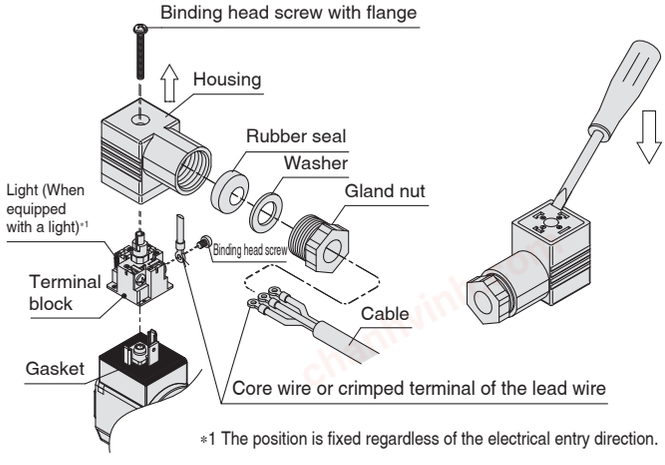
1. After loosening the binding head screw with flange, then if the housing is pulled in the direction of the arrow, the connector will be removed from the solenoid valve.
2. Pull out the binding head screw with flange from the housing.
3. There is a cutout on the bottom of the terminal block. Insert a small flat head screwdriver, etc., into this cutout, and remove the terminal block from the housing. (Refer to the figure below.)
4. Remove the gland nut, and pull out the washer and the rubber seal.

Wiring

1. Pass the cable through the gland nut, washer, and rubber seal in this order, and insert these parts into the housing.
2. Loosen the binding head screw of the terminal block, then insert the core wire or the crimped terminal of the lead wire into the terminal, and securely fix it with the binding head screw. The binding head screw of the terminal block is M3.
   - ∗1 Tighten the screw to a torque of between 0.5 and 0.6 N·m.
   - ∗2 Cable O.D.: Ø 6 to Ø 12 mm
   - ∗3 For an outside cable diameter of Ø 9 to Ø 12 mm, remove the internal parts of the rubber seal before use.

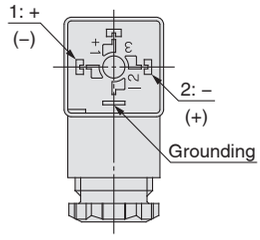
Assembly

1. Pass the cable through the gland nut, washer, rubber seal, and the housing in this order, and connect to the terminal block. Then, set the terminal block inside the housing. (Push in the terminal block until it snaps into position.)
2. Insert the rubber seal and the washer in this order into the cable entry of the housing, and then tighten the gland nut securely.
3. Insert the gasket between the bottom part of the terminal block and the plug attached to the equipment, and then insert the binding head screw with flange from the top of the housing, and tighten it.
   - ∗1 Tighten the screw to a torque of between 0.5 and 0.6 N·m.
   - ∗2 The orientation of the connector can be changed in steps of 90° by changing the method of assembling the housing and the terminal block.



∗1 The position is fixed regardless of the electrical entry direction.

Internal connections are as shown below. Make connections to the power supply accordingly.

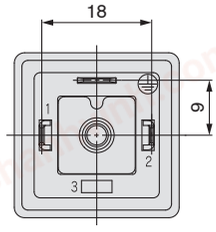


Terminal no.	1	2
DIN terminal	+ (–)	– (+)

∗ There is no polarity.

DIN (EN 175301-803) Terminal

This DIN terminal corresponds to the Form A DIN connector with an 18 mm terminal pitch.



Applicable cable O.D.: Ø 6 to Ø 12

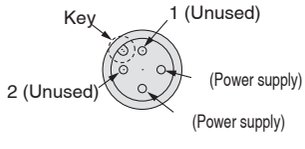
4. M12 connector

1. The IP 6 7 (enclosure) rating of the valve can be obtained by using a cable with a female connector of IP 6 7 specification. Please note that this product cannot be used in water.
2. Do not use a tool to mount the connector as this may cause damage. Only tighten it by hand. (0.39 to 0.49 N·m)
3. Avoid repeatedly bending or stretching the cable and applying heavy objects or force to it.
4. Do not pull the connector or cable unnecessarily.
5. Do not bend the cable at the root of the connector when installed.

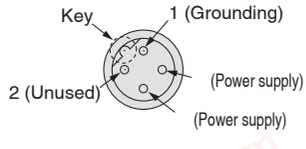
■ Coding and pin arrangement of the M12 connector on the valve side

The shape (coding) and pin arrangement of the M12 connector are as follows.

DC specification: A-coded, 4-pin



AC specification: B-coded, 4-pin



∗ The solenoid valve has no polarity for DC voltages.

When using the cable with a female connector, make sure that the coding is correct. When installing the cable, be sure to align the key on the cable side connector (female side) with the key on the valve side connector (male side).
Be careful not to squeeze it in the wrong direction as pin damage, etc., may result.

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JSXF/JSXFA Series
Specific Product Precautions 6

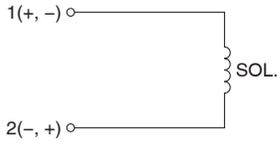
Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

Electrical Circuits

⚠ Caution

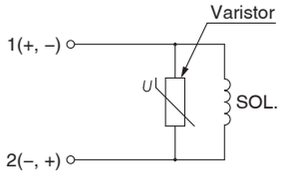
1. DC circuit

Grommet



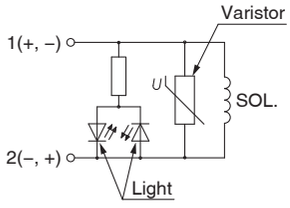
Without electrical option

Grommet, Conduit, DIN terminal



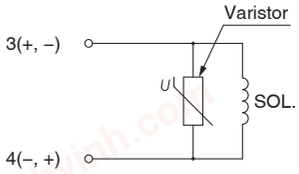
With surge voltage suppressor

DIN terminal



With light/surge voltage suppressor

M12 connector

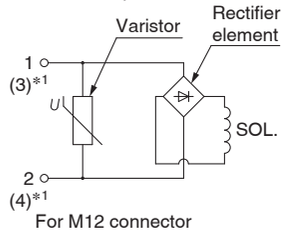


With surge voltage suppressor

2. AC circuit

The standard product is equipped with a surge voltage suppressor.

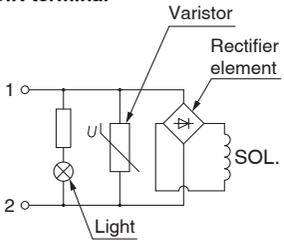
Grommet, Conduit, DIN terminal, M12 connector



For M12 connector

Without electrical option

DIN terminal



With light

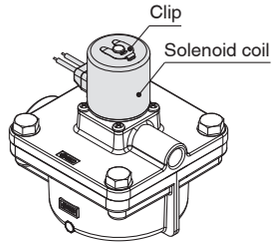
Replacing the Solenoid Coils

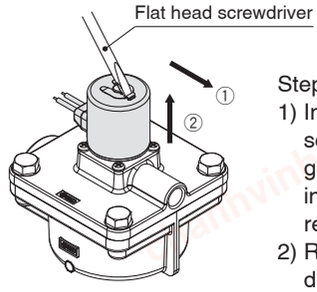
⚠ Warning

1. Before replacing the solenoid coil, turn OFF the power supply.

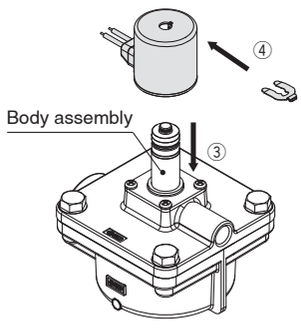
2. Due to the fluid temperature and the operating conditions, the solenoid coil may become extremely hot. Be careful when handling.

⚠ Caution

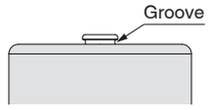




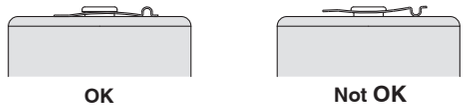
Step 1) Remove the coil.
1) Insert a flat head screwdriver, etc., into the groove in the clip and slide it in the direction of ① to remove it.
2) Remove the coil in the direction of ②.



Step 2) Assemble the coil.
1) Insert the replacement coil into the body assembly in the direction of ③.
2) Insert the clip in the direction of ④ by aligning it with the groove in the top of the body assembly. The clip is directional. Refer to the figures below.



Be sure to confirm the clip direction (back and front) as well as the inserted condition.



OK **Not OK**

Clip direction



OK **Not OK**

Inserted condition

* When inserting the coil, be sure to push it in until the groove in the body assembly is visible.

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JSXF/JSXFA Series
Specific Product Precautions 7

Be sure to read this before handling the products. Refer to the back cover for safety instructions. For 2-port solenoid valve for fluid control precautions, refer to the "Handling Precautions for SMC Products" and the "Operation Manual" on the SMC website: https://www.smc.eu

Appearance

⚠Caution

1. **Surface treatment is applied to the product to improve corrosion resistance. There may be a spotted pattern on the surface depending on the treatment condition, but this does not affect usage or performance.**
2. **Rust may be generated on the solenoid coil depending on the operating environment and conditions, but this does not affect usage or performance.**

Maintenance

⚠Warning

1. **Removal of product**
   1) Turn OFF the fluid supply, and release the fluid pressure in the system.
   2) Turn OFF the power supply.
   3) Confirm that the valve temperature has dropped sufficiently before removing the product.
2. **Replace or clean filters periodically.**
   Replace filters after 1 year of use or earlier if the pressure drop reaches 0.1 MPa.
3. **Exhaust the drainage from air filters periodically.**
   If condensation in the drain bowl is not emptied on a regular basis, the bowl will overflow and allow the condensation to enter the compressed air lines. This may result in the malfunction of pneumatic equipment. If the drain bowl is difficult to check or remove, the installation of a drain bowl with an auto drain option is recommended.
4. **Silencer**
   Prolonged use may cause clogging and changes in response characteristics. Replace it after using about 500,000 times. This number is subject to change based on fluid quality and energising time.
5. **Disassembly**
   Do not disassemble anything other than the main valve and solenoid coil. Doing so may result in a malfunction.
   Refer to the "Disassembly/Assembly Procedure" on pages 15, 20, and 31 for part replacement instructions.
6. **Low-frequency operation**
   Switch valves at least once every 30 days to prevent a malfunction. Also, in order to use them under the optimum state, conduct an inspection biannually.
7. **Storage**
   In the case of long-term storage after use, thoroughly remove all moisture and store it in a location where the product is not exposed to sunlight and higher humidity to prevent rust and the deterioration of rubber materials, etc.
8. **Perform maintenance and inspection periodically.**
   Confirm that the product is mounted correctly by conducting suitable function and leakage tests periodically. If air leakage increases or equipment does not operate properly, stop operation.

Dedicated Controller for Operation VXFC Series

Wiring

⚠Warning

1. The controller starts its output the moment the power switch is turned ON. Be aware that even if the power switch is turned OFF, power is connected to the terminal block.

⚠Caution

1. Make sure that the power supply voltage to be input matches the voltage in the controller's specifications. The power supply voltage that has been input becomes the voltage that is output to the solenoid valves.
2. Connect a ground that is rated Class 3 or greater to the power supply terminal block's FG.
3. If the power source is DC, be sure to confirm the polarity. If the polarity is incorrect, it may result in a malfunction or damage.
4. For details, please refer to the separate "Operation Manual."
5. The solenoid valve mounted on the controller should be equipped with a surge voltage suppressor.

Operating Environment

⚠Warning

1. Operate under conditions that are free of vibration and impact.
2. Operate in an ambient temperature range between 0 °C and 50 °C.
3. Operate in an ambient humidity range between 45 % to 80 % (no condensation).

Return of Product

⚠Warning

If the product to be returned is contaminated or is possibly contaminated with substances that are harmful to humans, for safety reasons, please contact SMC beforehand and then employ a specialist cleaning company to decontaminate the product. After the decontamination prescribed above has been carried out, submit a Product Return Request Sheet or the Detoxification/Decontamination Certificate to SMC and await SMC's approval and further instructions before attempting to return the item.
Please refer to the International Chemical Safety Cards (ICSC) for a list of harmful substances.
If you have any further questions, please don't hesitate to contact your SMC sales representative.

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⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of **"Caution," "Warning"** or **"Danger."** They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC) [1], and other safety regulations.

⚠ **Caution:**	**Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
⚠ **Warning:**	**Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
⚠ **Danger:**	**Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

1) ISO 4414: Pneumatic fluid power – General rules relating to systems.
ISO 4413: Hydraulic fluid power – General rules relating to systems.
IEC 60204-1: Safety of machinery – Electrical equipment of machines. (Part 1: General requirements)
ISO 10218-1: Manipulating industrial robots - Safety.
etc.

⚠ Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.
Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalogue information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.
The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.
1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Contact SMC beforehand and take special consideration of safety measures if the product is to be used in any of the following conditions.
1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Installation on equipment in conjunction with atomic energy, railways, air navigation, space, shipping, vehicles, military, medical treatment, combustion and recreation, or equipment in contact with food and beverages, emergency stop circuits, clutch and brake circuits in press applications, safety equipment or other applications unsuitable for the standard specifications described in the product catalogue.
3. An application which could have negative effects on people, property, or animals requiring special safety analysis.
4. Use in an interlock circuit, which requires the provision of double interlock for possible failure by using a mechanical protective function, and periodical checks to confirm proper operation.

⚠ Caution

1. The product is provided for use in manufacturing industries.
The product herein described is basically provided for peaceful use in manufacturing industries.
If considering using the product in other industries, consult SMC beforehand and exchange specifications or a contract if necessary.
If anything is unclear, contact your nearest sales branch.

Limited warranty and Disclaimer/Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first. [2] Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided. This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalogue for the particular products.

2) Vacuum pads are excluded from this 1 year warranty.
A vacuum pad is a consumable part, so it is warranted for a year after it is delivered. Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

⚠ Caution

SMC products are not intended for use as instruments for legal metrology.
Measurement instruments that SMC manufactures or sells have not been qualified by type approval tests relevant to the metrology (measurement) laws of each country.
Therefore, SMC products cannot be used for business or certification ordained by the metrology (measurement) laws of each country.

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Revision History

Edition B	- An immersion type has been added. - The ATEX compliant 55-JSXFA series has been added. - The number of pages has been increased from 16 to 20.	YT
Edition C	- 3/4 (20A), 1 1/2 (40A), and 2 (50A) port sizes have been added to the immersion type. - The number of pages has been increased from 20 to 24.	ZY
Edition D	- A solenoid valve type has been added. - UKCA compliance has been added. - The number of pages has been increased from 24 to 44.	AS
Edition E	- A SMARTVENT type has been added. - The number of pages has been increased from 44 to 52.	AS

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