

Series SX3000/5000/7000 Body Ported Valve Single Unit

How to Order

SX 5 1 20 — 5 N L — — — 01 — —

Series

3	SX3000
5	SX5000
7	SX7000

Type of actuation

1	2 position single (A)(B) 4 2 5 1 3 (EA)(P)(EB)
2	2 position double (A)(B) 4 2 5 1 3 (EA)(P)(EB)
3	3 position closed center (A)(B) 4 2 5 1 3 (EA)(P)(EB)
4	3 position exhaust center (A)(B) 4 2 5 1 3 (EA)(P)(EB)
5	3 position pressure center (A)(B) 4 2 5 1 3 (EA)(P)(EB)

Rated voltage

5	24 VDC
6	12 VDC
V	6 VDC
S	5 VDC
R	3 VDC

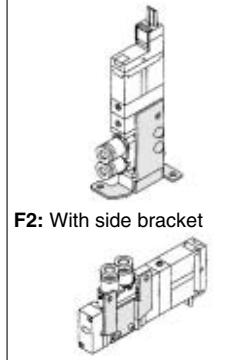
Common specifications

Nil	Positive common
N	Negative common

Note) Put nothing for single grommet style and single without indicator light and surge voltage suppresser.

Bracket

Nil: Without bracket
F1: With foot bracket



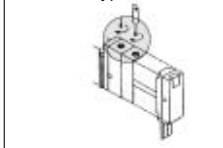
F2: With side bracket

Manual override

Nil: Non-locking push type



D: Push-turn locking slotted type



Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

A, B port size Thread piping

Symbol	Port size	Applicable series
M5	M5 x 0.8	SX3000
01	1/8	SX5000
02	1/4	SX7000

One-touch fitting (Metric size)

Symbol	Port size	Applicable series
C4	One-touch fittings for ø4	SX3000
C6	One-touch fittings for ø6	
C4	One-touch fittings for ø4	SX5000
C6	One-touch fittings for ø6	
C8	One-touch fittings for ø8	SX7000
C8	One-touch fittings for ø8	
C10	One-touch fitting for ø10	

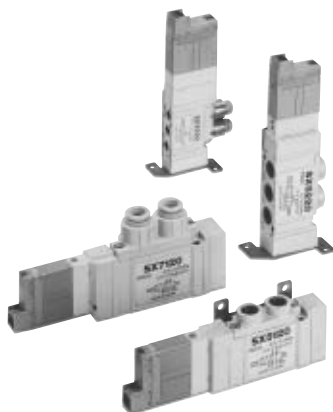
One-touch fitting (Inch size)

Symbol	Port size	Applicable series
N3	One-touch fitting for ø5/32"	SX3000
N7	One-touch fitting for ø1/4"	
N3	One-touch fitting for ø5/32"	SX5000
N7	One-touch fitting for ø1/4"	
N9	One-touch fitting for ø5/16"	SX7000
N9	One-touch fitting for ø5/16"	
N11	One-touch fitting for ø3/8"	

Electrical entry

Grommet	L plug connector	M plug connector	
G: Lead wire length 300 mm	L: With lead wire (Length 300 mm)	M: With lead wire (Length 300 mm)	MN: Without lead wire
H: Lead wire length 600 mm	LN: Without lead wire	LO: Without connector	MO: Without connector

* The LN or MN option includes 2 sockets for single solenoid valves and 3 sockets for double solenoid valves.



Specifications

Series		SX3000	SX5000	SX7000
Fluid		Air		
Internal pilot	2 position single	0.15 to 0.7		
Operating pressure range (MPa)	2 position double	0.1 to 0.7		
	3 position	0.2 to 0.7		
Ambient and fluid temperature (°C)		Max. 50		
Max. operating frequency (Hz)	2 position single, double	10	5	5
	3 position	3	3	3
Manual override		Non-locking push type, Push-turn locking slotted type		
Pilot exhaust method		Common exhaust type for main and pilot valve		
Lubrication		Not required		
Mounting orientation		Unrestricted		
Impact/Vibration resistance (m/s ²) ^(Note)		150/30		
Enclosure		Dusttight		



Note) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Values at the initial period)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period)

SV

SZ

SY

SYJ

SX



Made to Order Specifications
(For details, refer to pages 1-6-124 to 1-6-138.)

Solenoid Specifications

Electrical entry		Grommet (G)/(H), L plug connector (L), M plug connector (M)
Coil rated voltage (V)	DC	24, 12, 6, 5, 3
Allowable voltage fluctuation		±10% of rated voltage
Power consumption (W)	DC	0.6 (With indicator light: 0.65)
Surge voltage suppressor		Diode
Indicator light		LED

Response Time



Note) Based on dynamic performance test, JIS B 8375-1981. (Coil temperature: 20°C, at rated voltage)

SX3000

Type of actuation	Response time (ms) (at the pressure of 0.5 MPa)	
	Without light/surge voltage suppressor	With light/surge voltage suppressor
		S, Z type
2 position single	12 or less	15 or less
2 position double	10 or less	13 or less
3 position	15 or less	20 or less

SX5000

Type of actuation	Response time (ms) (at the pressure of 0.5 MPa)	
	Without light/surge voltage suppressor	With light/surge voltage suppressor
		S, Z type
2 position single	19 or less	26 or less
2 position double	18 or less	22 or less
3 position	32 or less	38 or less

SX7000

Type of actuation	Response time (ms) (at the pressure of 0.5 MPa)	
	Without light/surge voltage suppressor	With light/surge voltage suppressor
		S, Z type
2 position single	31 or less	38 or less
2 position double	27 or less	30 or less
3 position	50 or less	56 or less