

Vacuum System Peripherals:

Vacuum regulator, Electronic vacuum regulator, Directional control valve, Pressure gauge for vacuum, Fittings & Tubing, Flow control equipment, Vacuum line equipment

Related Products:

Air filter, Regulator, Filter regulator, Mist separator

ZX

ZR

ZM

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

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Vacuum System Peripherals:

Vacuum Regulator

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Related Products:

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Vacuum System Peripherals: Vacuum Regulator: *IRV1000/2000/3000*

Allows adjustment of vacuum line pressure



Specifications

Model	IRV1000	IRV2000	IRV3000
Fluid	Air		
Set pressure range ⁽¹⁾	-100 to -1.3 kPa		
Atmospheric intake consumption ⁽²⁾	0.6 ℓ/min (ANR) or less	1.1 ℓ/min (ANR) or less	
Knob resolution	0.13 kPa or less		
Ambient and fluid temperature	5 to 60°C		
Port size	Rc 1/8	Rc 1/4	Rc 1/4, 3/8, 1/2
Pressure gauge port size	Rc 1/8 (2 locations)		
Weight (kg)[without accessory]	0.12	0.27	0.7



Note 1) Note that the pressure range fluctuates depending on the vacuum pump pressure.
Note 2) Air is always supplied from the atmosphere.

How to Order

IRV 1 000 — 01 —

Vacuum regulator — **Body size** — **Thread type** — **Pressure gauge position** — **Accessory** — **Port size**

Body size	Model
1	IRV1000
2	IRV2000
3	IRV3000

Thread type	Symbol
Nil	Rc
Nu*	NPT
Fu*	G

*Option

Pressure gauge position

Nil: Standard

R: Rear pressure gauge mounting

Accessory	Symbol	Description
Nil	None	None
B	With bracket	Note)
G	With pressure gauge	

Note) Brackets are shipped together, (but not assembled).

Combinations

○ Standard specification ○ Valid combination □ Invalid combination

Specifications	Symbol	Applicable model		
		IRV1000	IRV2000	IRV3000
Standard specifications	Connection Rc 1/8	○		
	Connection Rc 1/4		○	○
	Connection Rc 3/8			○
	Connection Rc 1/2			○
Accessory	Bracket	○	○	○
	Pressure gauge	○	○	○
Option	Rear pressure gauge mounting	○	○	○
	Connection NPT 1/8	○		
	Connection NPT 1/4		○	○
	Connection NPT 3/8			○
	Connection NPT 1/2			○
	Connection G 1/8	○		
	Connection G 1/4		○	○
	Connection G 3/8			○
Connection G 1/2			○	

Port size

Symbol	Size	Applicable model		
		IRV1000	IRV2000	IRV3000
01	1/8	●	—	—
02	1/4	—	●	●
03	3/8	—	—	●
04	1/2	—	—	●

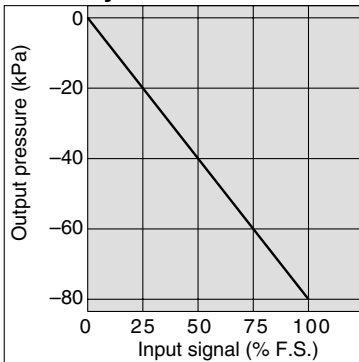
Vacuum System Peripherals: Electronic Vacuum Regulator: *ITV209* □



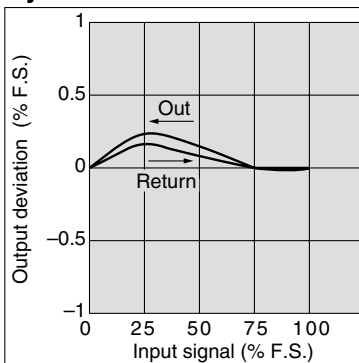
Straight type cable connector

Right angle type cable connector

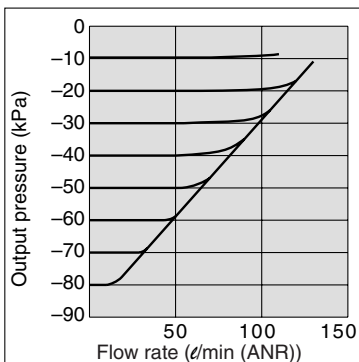
Linearity



Hysteresis



Flow Characteristics



Vacuum Supply pressure MPa: -100 kPa

Specifications

Model		ITV2090	ITV2091
Power supply	Voltage	24 VDC ±10%	12 to 15 VDC
	Current consumption	Power supply voltage 24 VDC type: 0.12 A or less Power supply voltage 12 to 15 VDC type: 0.18 A or less	
Min. supply vacuum pressure ⁽¹⁾		Set pressure -13.3 kPa	
Max. supply vacuum pressure		-101 kPa	
Set pressure range		-1.3 to -80 kPa	
Input signal	Current type ⁽²⁾	4 to 20 mA, 0 to 20 mA	
	Voltage type	0 to 5 VDC, 0 to 10 VDC	
	Preset input	4 points	
Input impedance	Current type	250 Ω or less	
	Voltage type	Approx. 6.5 kΩ	
	Preset input	Approx. 2.7 kΩ	
Output signal ⁽³⁾ (Monitor output)	Analog output ⁽⁴⁾	1 to 5 VDC (Load impedance: 1 kΩ or more) 4 to 20 mA (Sink type) (Load impedance: 250 Ω or less)	
	Switch output	NPN open collector output: Max. 30 V, 30 mA PNP open collector output: Max. 30 mA	
Linearity		Within ±1% (Full span)	
Hysteresis		Within 0.5% (Full span)	
Repeatability		Within ±0.5% (Full span)	
Sensitivity		Within 0.2% (Full span)	
Temperature characteristics		Within ±0.12% (Full span)/°C	
Output pressure display	Accuracy	±3% (Full span)	
	Units	kPa Minimum display: 1 ⁽⁵⁾	
Ambient and fluid temperature		0 to 50°C (With no condensation)	
Enclosure		Equivalent to IP65	
Weight		350 g	

- Note 1) The minimum supply vacuum pressure should be 13.3 kPa less than the maximum vacuum pressure setting value.
- Note 2) 4 to 20 mA is not possible with the 2-wire type. Power supply voltage (24 VDC or 12 to 15 VDC) is required.
- Note 3) Either analog output or switch output must be selected. Furthermore, when switch output is selected, either NPN output or PNP output must also be selected. Please note that the preset input type is not equipped with an output signal function.
- Note 4) At the atmospheric pressure, 1 VDC or 4 mA is output. 5 VDC or 20 mA is output at the rated pressure.
- Note 5) Please contact SMC regarding indication with other units of pressure.

How to Order

ITV 209 0-0 1 2 S 5

- Pressure range**
 - 9 -1.3 to -80 kPa
- Power supply voltage**
 - 0 24 VDC
 - 1 12 to 15 VDC
- Input signal**
 - 0 Current type 4 to 20 mA DC
 - 1 Current type 0 to 20 mA DC
 - 2 Voltage type 0 to 5 VDC
 - 3 Voltage type 0 to 10 VDC
 - 4* Preset input
- Monitor output**
 - 0° Without (In the case of preset input)
 - 1 Analog output 1 to 5 VDC
 - 2° Switch output/NPN output
 - 3° Switch output/PNP output
 - 4° Analog output 4 to 20 mA DC
- Pressure display unit**
 - 5 kPa
- Cable connector type**
 - S Straight type 3 m
 - L* Right angle type 3 m
 - N* Without cable connector
- Bracket**
 - Nil Without bracket
 - B* Flat bracket
 - C* L-bracket
- Port size**
 - 2 1/4
- Thread type**
 - Nil Rc
 - N* NPT
 - T* NPTF
 - F* G

* Option

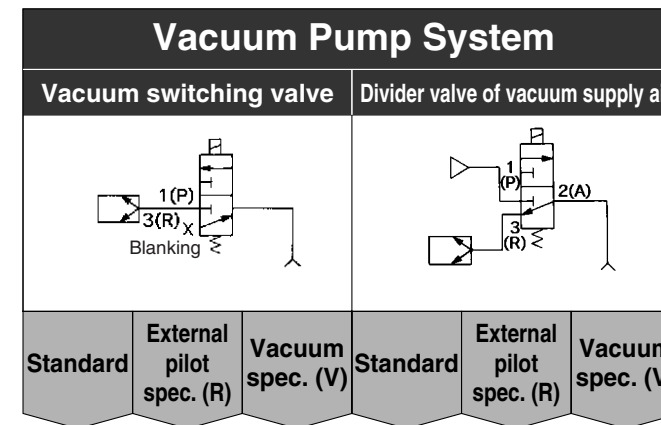
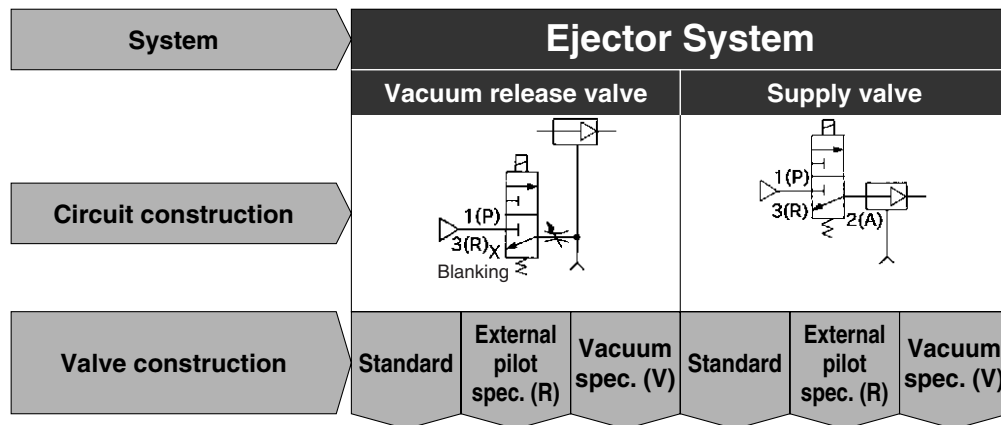
- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

Vacuum System Peripherals: Directional Control Valve

A guide for selecting the solenoid valve model to accommodate the system
An array of solenoid valves (2/3 port valve) for controlling the ejector/external vacuum supply system

How to read the chart

The solenoid valves are available in the following constructions: the standard product (for general use), the external pilot specification, and the vacuum specification. Select the optimal model in accordance with your circuit configuration and the effective area. For detailed specifications of these products, refer to the respective catalog that is available separately.



Caution on Model Selection

- Caution**
- Use a plug cap at R port of 2 port valve and 3 port valve for vacuum release valve and vacuum switching valve. (Except VEX 3 series)
 - 1) Leakage 1 cm³/min or less
 - 2) Leakage 10⁻⁵ atmcc/sec or less
 - 3) Applications are different from vacuum holding valve.
 - 4) Refer to Best Pneumatics Vol. 1/2/3/4/5 for flow characteristics.
 - 5) Conversion from sonic conductance C: Effective area S = 5.0 x C

Solenoid valve	Valve construction	Ejector System						Vacuum Pump System						Flow characteristics C(dm ³ /s·bar)	Effective area (mm ²)	Port size	Best Pneumatics volume no.
		Standard	External pilot spec. (R)	Vacuum spec. (V)	Standard	External pilot spec. (R)	Vacuum spec. (V)	Standard	External pilot spec. (R)	Vacuum spec. (V)	Standard	External pilot spec. (R)	Vacuum spec. (V)				
Compact 3 port solenoid valve <i>Series SY100, SYJ</i> Compact size: 10 mm (SY100, SYJ300) 15 mm (SYJ500) 18 mm (SYJ700) Low power consumption: 0.5 W		SY100	●	—	—	●	—	—	—	●	—	—	—	—	0.14	M3 x 0.5 M5 x 0.8 1/8, 1/4	Vol. 4
		SYJ300/500/700	—	●	—	—	●	—	—	—	●	—	—	0.41 to 2.8	Vol. 4		
3 port solenoid valve <i>Series VZ</i> Compact size: 15 mm (VZ100/200/300) 18 mm (VZ400/500)		VZ100	●	—	—	●	—	—	—	●	—	—	—	0.11 to 3.0	M5 x 0.8	Vol. 4	
		VZ300/500	—	●	—	—	●	—	—	—	●	—	—	—		Vol. 4	
		VQZ200/300	—	●	—	—	●	—	—	—	●	—	1.7 to 4.5	M5 x 0.8 1/8, 1/4		Vol. 4	
3 port solenoid valve <i>Series VX31/32/33</i>			●	—	—	●	—	—	—	● ⁽¹⁾	—	● ⁽²⁾	● ⁽¹⁾	—	1/8 to 3/8	Vol. 17	
3 port solenoid valve <i>Series VK</i>			●	—	—	●	—	—	—	—	—	—	—	0.47 to 0.85	M5 x 0.8 1/8	Vol. 4	
Compact 2 port solenoid valve <i>Series VX2</i>			●	—	● ⁽¹⁾	●	—	—	—	● ⁽¹⁾	—	● ⁽²⁾	—	—	1/8 to 3/8	Vol. 4	
3 port solenoid valve <i>Series VT</i> VT325/307/317			●	—	—	●	—	—	—	—	—	—	—	0.63 to 5.5	1/8 to 3/8	Vol. 4	
3 port solenoid valve <i>Series VP</i> VP300/500/700			—	●	—	—	●	—	—	—	—	—	—	2.9 to 15	1/8 to 1/2	Vol. 4	
3 port solenoid valve <i>Series VS</i>			●	—	—	●	—	—	—	●	—	—	—	3.8 to 20	1/8 to 3/4	Vol. 4	
3 position valve <i>Series VEX3</i> (Closed center)			●	—	—	●	—	—	—	—	●	—	—	2.4 to 24	1/8 to 1/2	Vol. 5	
			—	—	—	—	—	—	—	—	—	—	—	160 to 670	3/4 to 2		
Large flow 3 port solenoid valve <i>Series VP31□5</i>			—	●	—	—	●	—	—	—	—	—	—	19 to 28	3/8 to 3/4	Vol. 4	
			—	—	—	—	—	—	—	—	—	—	—	280 to 650	3/4 to 2		
3 port solenoid valve <i>Series VG342</i>			—	●	—	—	●	—	—	—	—	—	—	26 to 38	1/2 to 3/4	Vol. 4	
			—	—	—	—	—	—	—	—	—	—	—	210	1		

Note 1) For up to -101.2 kPa of vacuum, it can be used as the standard product (1 cm³/min max. leakage). Above that, it will be the V specification (10⁻⁵ at cm³/sec max. leakage).

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

Vacuum System Peripherals: Directional Control Valve/Solenoid Valve

Compact 3 port solenoid valve

Series SY100, SYJ

Can be used at -100 kPa vacuum
Compact size: Width 10 mm (SY100, SYJ300)
Width 15 mm (SYJ500)
Width 18 mm (SYJ700)
Low power consumption 0.5 W



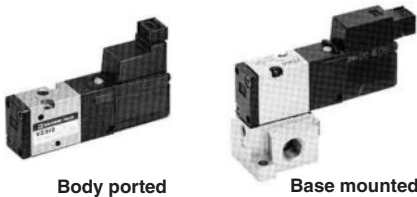
Model

Piping specifications	Solenoid valve	Port size	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
Body ported	SYJ312/322	M3 x 0.5	—	0.9
	SYJ512/522	M5 x 6.8	0.53	—
	SYJ712/722	1/8	2.8	—
Base mounted (With sub-plate)	SY114/124(A)	M3 x 0.5	—	0.14
	SYJ314/324	M5 x 0.8	0.41	1.8
	SYJ514/524	1/8	1.2	—
	SYJ714/724	1/8, 1/4	2.9	—

3 port solenoid valve

Series VZ100/300/500

Compact size: Width 15 mm (VZ100, 300)
Width 18 mm (VZ400, 500)
Low power consumption 1 W(0.5W)



Body ported

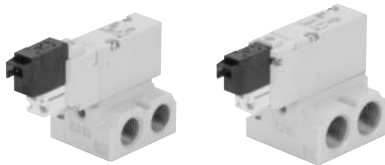
Base mounted

Model/Rubber Seal

Piping specifications	Solenoid valve	Port size	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
Body ported	VZ110/120	M5 x 0.8	0.11	—
	VZ312/322	M5 x 0.8	0.53	—
	VZ512/522	1/8	2.8	—
Base mounted (With sub-plate)	VZ314/324	1/8	1.2	—
	VZ514/524	1/8, 1/4	3.0	—

3 port solenoid valve

Series VQZ200/300



Base mounted

Model/Metal Seal, Rubber Seal

Piping specifications	Solenoid valve	Port size	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)	
Base mounted (With sub-plate)	VQZ 200	1/8, 1/4	VQZ215	1.7	—
			VQZ235	2.3	
			VQZ225	1.7	
			VQZ245	2.5	
	VQZ 300	1/4, 3/8	VQZ315	3.0	—
			VQZ335	4.5	
			VQZ325	2.9	
			VQZ345	4.4	

3 port solenoid valve

Series VK

Compact size: Width 18 mm
Possible to use with vacuum



Body ported

Base mounted

Model

Piping specifications	Solenoid valve	Port size	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
Body ported	VK332	M5 x 0.8	0.47	—
	For vacuum: VK332V *	M5 x 0.8	0.47	—
Base mounted (With sub-plate)	VK334	1/8	0.85	—
	For vacuum: VK334V *	1/8	0.85	—

* Vacuum specification: Operating pressure range -101.2 kPa to 0.1 MPa

* Low wattage style (2 W DC) and long period energized style available.

Directional Control Valve/Vacuum System Peripherals

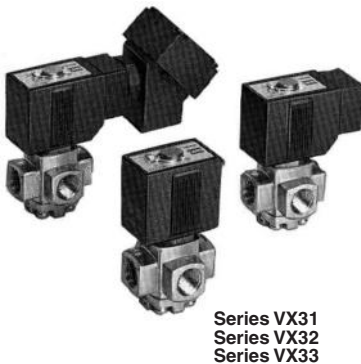
Compact 2 port solenoid valve Series VX2 options V & M For vacuum, non leakage



Model

Orifice dia. (mm ø)	Valve specifications	Model	Port size Rc	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
2	N.C.	VX2110 $\frac{M}{V}$	1/8, 1/4	0.58	—
	N.O.	VX2112 $\frac{M}{V}$			
3	N.C.	VX2120 $\frac{M}{V}$	1/8, 1/4	1.3	—
	N.O.	VX2122 $\frac{M}{V}$			
	N.C.	VX2220 $\frac{M}{V}$	1/4, 3/8	1.3	—
	N.O.	VX2222 $\frac{M}{V}$			
	N.C.	VX2320 $\frac{M}{V}$			
	N.O.	VX2322 $\frac{M}{V}$			
4.5	N.C.	VX2130 $\frac{M}{V}$	1/8, 1/4	2.6	—
	N.O.	VX2132 $\frac{M}{V}$			
	N.C.	VX2230 $\frac{M}{V}$	1/4, 3/8	2.6	—
	N.O.	VX2232 $\frac{M}{V}$			
	N.C.	VX2330 $\frac{M}{V}$			
6	N.O.	VX2240 $\frac{M}{V}$	1/4, 3/8	4.3	—
	N.C.	VX2340 $\frac{M}{V}$			
	N.O.	VX2342 $\frac{M}{V}$			
	N.C.	VX2250 $\frac{M}{V}$			
8	N.C.	VX2350 $\frac{M}{V}$	1/4, 3/8	6.4	—
	N.C.	VX2350 $\frac{M}{V}$			
10	N.C.	VX2260 $\frac{M}{V}$	1/4	8.8	—
			3/8, 1/2	11	—
	N.C.	VX2360 $\frac{M}{V}$	1/4	8.8	—
			3/8, 1/2	11	—

Compact 3 port solenoid valve Series VX3 options V & M For vacuum, non leakage



Model (N.C./N.O./C.O.)

Orifice dia. (mm ø)	Model	Port size Rc	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
1.5	VX311 $\frac{0}{2} \frac{M}{4} \frac{V}{-01}$	1/8	0.29	—
2.2	VX312 $\frac{0}{2} \frac{M}{4} \frac{V}{-01}$		0.60	—
3	VX313 $\frac{0}{2} \frac{M}{4} \frac{V}{-01}$		0.82	—
1.5	VX311 $\frac{0}{2} \frac{M}{4} \frac{V}{-02}$	1/4	0.29	—
2.2	VX312 $\frac{0}{2} \frac{M}{4} \frac{V}{-02}$		0.60	—
	VX3224 $\frac{M}{V} \frac{-02}$		0.64	—
3	VX313 $\frac{0}{2} \frac{M}{4} \frac{V}{-02}$	1/4	0.82	—
	VX3234 $\frac{M}{V} \frac{-02}$		1.1	—
	VX3334 $\frac{M}{V} \frac{-02}$		—	—
4	VX3244 $\frac{M}{V} \frac{-02}$	1/4	1.6	—
	VX3344 $\frac{M}{V} \frac{-02}$			
2.2	VX3224 $\frac{M}{V} \frac{-03}$	3/8	0.64	—
	VX3324 $\frac{M}{V} \frac{-03}$			—
3	VX3234 $\frac{M}{V} \frac{-03}$		3/8	1.1
	VX3334 $\frac{M}{V} \frac{-03}$	—		
4	VX3244 $\frac{M}{V} \frac{-03}$	3/8	1.6	—
	VX3344 $\frac{M}{V} \frac{-03}$			—

For Vacuum Pad

Model	Port size Rc	Orifice dia. (mm ø)		Effective area (mm ²) (Cv)	
		Pressurised side	Vacuum side	R → A	A → P
VXV313 □	1/8, 1/4	1.5	3	0.29	0.82
VXV324 □	1/4, 3/8	2.2	4	0.64	1.66
VXV334 □		2.2	4		

ZX

ZR

ZM

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AMJ

Misc.

Vacuum System Peripherals

3 port solenoid valve Series VT, VP



Model/Rubber Seal

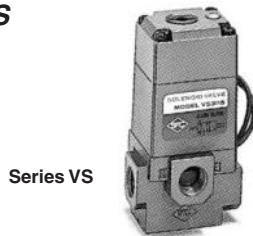
Piping specifications	Solenoid valve	Port size	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
Body ported	VT301(V)	1/8, 1/4	0.66	—
	VT315(V)	1/4	1.6	—
	VT325(V)	1/4, 3/8	5.5	—
	VT307(V) *	1/8, 1/4	0.71	—
Body ported	VT317(V) **	1/4	2.4	—
	VP342	1/8, 1/4	3.3	—
	VP542	1/4, 3/8	6.6	—
Base mounted	VP742	3/8, 1/2	1.2	—
	VP344	1/8, 1/4	3.1	—
	VP544	1/4, 3/8	8.1	—
Body ported	VP744	3/8, 1/2	15	—
	VP3145	3/8, 1/2, 3/4	19 to 28	—
	VP3165	3/4, 1, 1 1/4	—	230 to 310
	VP3185	1 1/4, 1 1/2, 2	—	570 to 650

* Low wattage (2 W DC) type and long period energized type available.

** Long period energized type available.

V: Vacuum specification: Operating pressure range -101.2 kPa to 0.1 MPa

3 port solenoid valve Series VS



Model/Metal Seal

Piping specifications	Solenoid valve	Port size	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
Body ported	VS3115	1/8, 1/4	3.8	—
	VS3110	1/4, 3/8	4.0	—
	VS3135	1/4, 3/8, 1/2	9.0	—
	VS3145	1/2, 3/4	20	—

3 port solenoid valve Series VG342



Model/Rubber Seal

Piping specifications	Solenoid valve	Port size	Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)
Body ported	VG342	1/2 to 3/4	26 to 38	—
		1	—	210
	For Vacuum: VG342R *	1/2 to 3/4	26 to 38	—
		1	—	210

* Operating pressure range: -101.2 kPa to 0.9 MPa

3 position valve Series VEX3



Model

Piping specifications	Model	Port size		Flow characteristics C (dm ³ /(s·bar))	Effective area (mm ²) (Cv)	
		P, A port	R port			
Body ported	Air operated	VEX3 ₃ ¹ 20		1/8 to 1/2	2.4 to 9.8	—
		VEX3 ₉ ⁵ 00		1/2	24	—
	External pilot solenoid valve	VEX3 ₃ ¹ 21		1/8 to 1/2	2.4 to 9.8	—
		VEX3 ₉ ⁵ 01		1/2	24	—
				3/4 to 2	—	160 to 670
	Internal pilot solenoid valve	VEX3 ₃ ¹ 22		1/8 to 1/2	2.4 to 9.8	—
VEX3 ₉ ⁵ 02		1/2	24	—		
Base mounted	Air operated	VEX3 ₄ ² 20		1/8 to 1/2	3.3 to 13	—
	External pilot solenoid valve	VEX3 ₄ ² 21				
	Internal pilot solenoid valve	VEX3 ₄ ² 22				

Vacuum System Peripherals: Vacuum Pressure Switch



2-color Display High Precision Digital Pressure Switch: Series ZSE30

Model	ZSE30
Rated pressure range	-100 to 100 kPa
Set pressure range	-101 to 101 kPa
Proof pressure	500 kPa
Setting/Display resolution	0.2 kPa
Fluid	Air/Inert gas/Non-flammable gas
Power supply voltage	12 to 24 VDC \pm 10%, Ripple (p-p) 10% or less (With power supply polarity protection)
Current consumption	45 mA or less (70 mA or less for current output)
Switch output	NPN or PNP open collector output: 1output
Max. load current	80 mA
Max. applied voltage	30 V (With NPN output)
Residual voltage	1 V or less (With load current of 80 mA)
Response time	2.5 ms or less (Response time selections with anti-chattering function: 20 ms, 160 ms, 640 ms, 1280 ms)
Short circuit protection	With short circuit protection

For details, refer to Best Pneumatics Vol. 16.

High Precision Digital Pressure Switch: Series ZSE40



Model	ZSE40	
Rated pressure range	0.0 to -101.3 kPa	
Operating pressure range/Set pressure range	10.0 to -101.3 kPa	
Proof pressure	500 kPa	
Set pressure resolution	(kPa)	0.1
	(MPa)	—
	(kgf/cm ²)	0.001
	(bar)	0.001
	(psi)	0.01
	(mmHg)	1
	(inHg)	0.1
Applicable fluid	Air/Inert gas/Non-flammable gas	
Power supply voltage	12 to 24 VDC \pm 10%, Ripple (p-p) 10% or less	
Current consumption	55 mA or less	
Switch output	NPN or PNP 2 outputs Max. load current: 80 mA Max. applied voltage: 30 VDC (With NPN output) Residual voltage: 1 V or less (With 80 mA load current)	

For details, refer to Best Pneumatics Vol. 16.

High Precision Digital Pressure Switch: Series ZSE50F



Model	ZSE50F (Compound pressure)	
Rated pressure range	-100 to 100 kPa	
Operating pressure range and regulating pressure range	-100 to 100 kPa	
Proof pressure	500 kPa	
Setting/Display ^{Note)} resolution	(kPa)	0.1
	(MPa)	—
	(kgf/cm ²)	0.001
	(bar)	0.001
	(psi)	0.02
	(mmHg)	1
	(inHg)	0.1
Fluid	Fluid that will not corrode stainless steel 630 and 304	
Power supply voltage	12 to 24 VDC, Ripple (p-p) 10% or less	
Current consumption	55 mA or less (With no load)	

For details, refer to Best Pneumatics Vol. 16.

(Note) In case of types with unit conversion function. (Types without unit conversion function are fixed to the SI units (KPa or MPa).)

ZX

ZR

ZM

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

Vacuum System Peripherals: Vacuum Pressure Switch



High Precision Digital Pressure Switch: Series ZSE60F

Model	ZSE50F (Compound pressure)	
Rated pressure range	-100 to 100 kPa	
Operating pressure range and regulating pressure range	-100 to 100 kPa	
Proof pressure	500 kPa	
Setting/Display ^{Note)} resolution	(kPa)	0.1
	(MPa)	—
	(kgf/cm ²)	0.001
	(bar)	0.001
	(psi)	0.02
	(mmHg)	1
(inHg)	0.1	
Fluid	Fluid that will not corrode stainless steel 630 and 304	
Power supply voltage	12 to 24 VDC, Ripple (p-p) 10% or less	
Current consumption	55 mA or less (With no load)	

For details, refer to Best Pneumatics Vol. 16.

Note) In case of types with unit conversion function. (Types without unit conversion function are fixed to the SI units (KPa or MPa).)



LCD Readout Digital Pressure Switch: Series ZSE3

Model	ZSE3	
Pressure setting range	0 to -101 kPa	
Maximum operating pressure	200 kPa	
Min. display unit	(mmHg)	5
	(kgf/cm ²)	—
Fluid	Air/Non-corrosive gas	
Operating voltage	12 to 24 VDC (Ripple \pm 10% or less)	
Current consumption	25 mA or less	

For details, refer to Best Pneumatics Vol. 16.



Compact Pressure Switch: Series ZSE1

Model	ZSE1
Pressure setting range	0 to -101 kPa
Proof pressure	500 kPa
Temperature characteristics	\pm 3% F.S.
Operating voltage	12 to 24 VDC (Ripple \pm 10% or less)
Current consumption	17 mA or less at 24 VDC, 2 output: 25 mA or less at 24 VDC
Port size	01: R $\frac{1}{8}$, M5 x 0.8 T1: NPTF $\frac{1}{8}$, M5 x 0.8 00: ZM ejector mounted style
Operating temperature range	0 to 60°C (No condensation)

For details, refer to Best Pneumatics Vol. 16.



Compact Pressure Switch: Series ZSE2

Model	ZSE2
Pressure setting range	0 to -101 kPa
Maximum operating pressure	200 kPa
Operating voltage	12 to 24 VDC (Ripple \pm 10% or less)
Operation indicator light	Lights up when ON (Red)
Current consumption	17 mA or less (When 24 VDC is ON)
Operating temperature range	0 to 60°C (No condensation)
Port size	01: R $\frac{1}{8}$, M5 x 0.8 T1: NPTF $\frac{1}{8}$, M5 x 0.8
	0X: With suction filter (For mounting on ZM unit)
	0R: Base mounted style (For mounting on ZR unit)

For details, refer to Best Pneumatics Vol. 16.

Vacuum System Peripherals: Vacuum Pressure Switch



Air Checker Electronic Pressure Switch: Series PS1100

Model	PS1100-R06L
Switch output	Present prss. ≤ Setting prss.: ON
Max. operating pressure	1 MPa
Set pressure range	-0.1 to 0.4 MPa
Fluid	Air, Non corrosive gas
Operation indicator light	ON: When red LED turns on
Temperature characteristics	±3% F.S. or less
Repeatability	±1% F.S. or less
Hysteresis	4% F.S.
Load voltage	12 to 24 VDC (Ripple ±10% or less)
Load current	5 to 40 mA
Leakage	1 mA or less
Internal voltage drop	5 V or less
Operating temperature range	0 to 60°C (No condensation)

For details, refer to Best Pneumatics Vol. 16.

Adsorption Confirmation Switch: Series ZSP1

Model	ZSP1-S	ZSP1-B
Fluid	Air	
Operating pressure range	-20 to -101 kPa	
Applicable adsorption nozzle dia.	ø0.3 to ø0.7	ø0.5 to ø1.2
Hysteresis	0.5 kPa	
Internal orifice	ø0.5	ø0.8
Load voltage	12 to 24 VDC (Ripple ±10% or less)	
Output	NPN Open collector 30 V, 80 mA	

For details, refer to Best Pneumatics Vol. 16.

Multi-channel Controller: Series PSE200

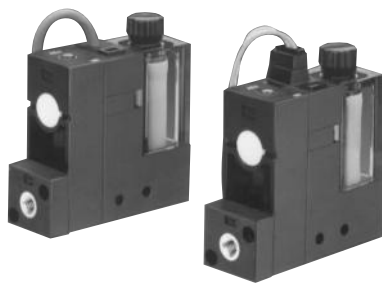
Model	PSE200	PSE201
Output specifications	NPN open collector	PNP open collector
Power supply voltage	12 to 24 VDC ±10%, Ripple (p-p) 10% or less (With power supply polarity protection)	
Current consumption	55 mA or less (Current consumption for sensor is not included.)	
Power supply voltage for sensor	[Power supply voltage] -1.5 V	
Power supply current for sensor ⁽¹⁾	40 mA maximum (100 mA maximum for the total power supply current when 4 sensors are input.)	

For details, refer to Best Pneumatics Vol. 16.

Pressure Sensor: Series PSE530

Model	PSE531-M5
Rated pressure range	0 to -101 kPa
Proof pressure	500 kPa
Applicable fluid	Air, Non corrosive gas
Power supply voltage	12 to 24 VDC (Ripple ±10% or less)
Current consumption	15 mA or less
Output specifications	Analog output (1 to 5 V, Output impedance: Approx. 1 kΩ)

For details, refer to Best Pneumatics Vol. 16.



ZX

ZR

ZM

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ZQ

ZF

ZP

ZCU

AMJ

Misc.

Related Products:

Air Line Equipment

Air Filter, Regulator, Filter Regulator, Mist Separator

Modular, Air filter Series AF



Model	Port size Rc	Flow rate * (ℓ/min (ANR))	Bowl capacity (cm ³)	Filtration degree (μm)
AF10	M5 x 0.8	150	2.5	5
AF20	1/8, 1/4	1100	8	
AF30	1/4, 3/8	2600	25	
AF40	1/4, 3/8, 1/2	4500	45	
AF40-06	3/4	5500	45	
AF50	3/4, 1	7000	45	
AF60	1	9000	45	

* Inlet pressure — 0.7 MPa, Pressure drop — 0.05 MPa

Modular, Regulator Series AR



Model	Port size Rc	Flow rate * (ℓ/min (ANR))	Set pressure (MPa)	Pressure gauge connection port Rc	Construction
AR10	M5 x 0.8	100	0.05 to 0.7	1/16	Relieving type
AR20	1/8, 1/4	600		1/8	
AR25	1/4, 3/8	1200		1/8	
AR30	1/4, 3/8	2900		1/8	
AR40	1/4, 3/8, 1/2	5000		1/4	
AR40-06	3/4	6000		1/4	
AR50	3/4, 1	8000		1/4	
AR60	1	10000		1/4	

* Inlet pressure — 0.7 MPa, Set pressure — 0.5 MPa, Pressure drop — 0.1 MPa

Modular, Filter regulator Series AW



Model	Port size Rc	Flow rate * (ℓ/min (ANR))	Set pressure range (MPa)	Construction	Bowl capacity (cm ³)	Filtration (μm)
AW10	M5 x 0.8	100	0.05 to 0.7	Relieving type	2.5	5
AW20	1/8, 1/4	500	0.05 to 0.85		8	
AW30	1/4, 3/8	2000	0.05 to 0.85		25	
AW40	1/4, 3/8, 1/2	3000	0.05 to 0.85		45	
AW40-06	3/4	3500	0.05 to 0.85		45	

* Inlet pressure — 0.7 MPa, Set pressure — 0.5 MPa, Pressure drop — 0.1 MPa

Mist separator Series AM

Separates and removes the oil mist that is contained in compressed air, which is not easily performed by an ordinary air filter. Solid particles measuring more than 0.3 μm, such as carbon, can be removed.



Model	Port size Rc	Flow capacity * (ℓ/min (ANR))	Filtration (μm)	Oil mist concentration at outlet side
AM150	1/8, 1/4, 3/8	300	0.3	Max. * 1.0 mg/m ³ (ANR) (≅ 0.8 ppm)
AM250	1/4, 3/8, 1/2	750		
AM350	3/8, 1/2, 3/4	1500		
AM450	1/2, 3/4, 1	2200		
AM550	3/4, 1	3500		
AM650	1, 1/2	6000		
AM850	1 1/2, 2	12000		

Can produce with auto drain type, drain piping type.

* At compressor discharge concentration 30 mg/m³ (ANR)

Modular, Mist separator Series AFM



Model	Port size Rc	Rated flow rate * (ℓ/min (ANR))	Filtration (μm)	Oil mist concentration at outlet side
AFM20	1/8, 1/4	200	0.3	Max. ** 1.0 mg/m ³ (ANR) (≅ 0.8 ppm)
AFM30	1/4, 3/8	450		
AFM40	1/4, 3/8, 1/2	1100		
AFM40-06	3/4	1100		

* At inlet pressure 0.7 MPa (Rated flow depends on inlet pressure.)

** At compressor discharge concentration 30 mg/m³ (ANR)

ZX

ZR

ZM

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

Related Products: Fittings & Tubing/Flow Control Equipment

General Fittings

*Refer to Best Pneumatics Vol. 15 for further details.

One-touch mini fitting

PAT.PEND

Series **KJ**

- Unique shape of release bushing allows easy tubing release.
- Standard with thread sealant
- Possible to be used in application where copper-free material is required.
- Possible to be used in vacuum from -100 KPa

Applicable tubing O.D.: $\phi 3.2$, $\phi 4$, $\phi 6$
Connection thread: M3, M5, R 1/8



One-touch mini fittings

Series	Applicable tubing material	Tubing O.D.	Connection	Operating vacuum pressure
KJ	Nylon, Soft nylon, Polyurethane	$\phi 3.18$, $\phi 4$, $\phi 6$	M3, M5, R 1/8	From -100 kPa

One-touch fittings

PAT.PEND Series **KQ2**

It can be used for nylon, soft nylon, or polyurethane. It dramatically reduces piping labor and saves space. Standard with thread sealant.



One-touch fittings

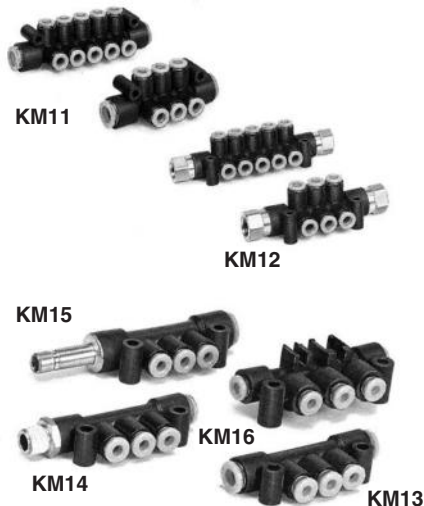
Series	Applicable tubing material	Tubing O.D.	Connection	Operating vacuum pressure
KQ2	Nylon, Soft nylon, Polyurethane	$\phi 3.2$, $\phi 4$ $\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$, $\phi 16$	M5, M6, R 1/8 to 1/2	From -100 kPa

One-touch fittings/Manifold

Series **KM**

Applicable tubing: Nylon, Soft nylon, Polyurethane

Tubing O.D.: $\phi 4$, $\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$



Model

Model	Piping specifications		No. of port A	Port B port size	Port A piping port		
	Port A	Port B			$\phi 4$	$\phi 6$	$\phi 8$
KM11	One-touch fitting	One-touch fitting	6, 10	$\phi 8$	●		
				$\phi 10$		●	
				$\phi 12$			●
KM12	One-touch fitting	Rc	6, 10	Rc 1/4	●	●	
				Rc 3/8			●
KM13	One-touch fitting	One-touch fitting	3	$\phi 6$	●		
				$\phi 8$	●	●	
				$\phi 10$		●	●
KM14	One-touch fitting	One-touch fitting R male thread	3	$\phi 6$, R 1/8	●		
				$\phi 6$, R 1/4	●		
				$\phi 6$, R 3/8	●		
				$\phi 8$, R 1/8	●	●	
				$\phi 8$, R 1/4	●	●	
				$\phi 8$, R 3/8	●	●	
				$\phi 10$, R 1/4		●	●
$\phi 10$, R 3/8		●	●				
KM15	One-touch fitting	One-touch fitting rod	3	$\phi 6$	●		
				$\phi 8$	●	●	
				$\phi 10$		●	●
KM16	One-touch fitting	One-touch fitting	3	$\phi 4$	●		
				$\phi 6$	●	●	

Miniature fittings

Series **M3, M5, R 1/8**

A hose nipple that provides large holding force for tubing. It can be removed and installed easily.



Miniature fittings

Series	Applicable tubing material	Tubing O.D.	Connection
M	Nylon, Soft nylon, Polyurethane	$\phi 3.18$, $\phi 4$, $\phi 6$	M3, M5 R 1/8

Tubing

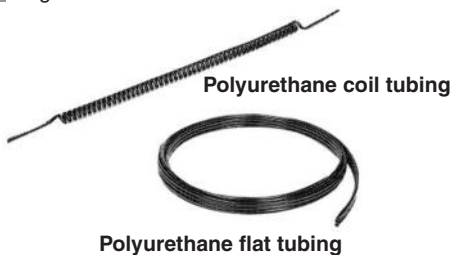
Tubing Nylon, Soft nylon, Polyurethane



Model	Material	Metric size														
		O.D. (mm)	3.18		4		6		8		10		12		16	
		I.D. (mm)	2	2.18	2.5	3	4	4.5	5	6	6.5	7.5	8	9	12	13
T	Nylon	—	●	●	●	●	●	—	●	—	●	—	●	—	●	
TS	Soft nylon	—	●	●	—	●	—	—	●	—	●	—	●	●	—	
TU	Polyurethane	●	—	●	—	●	—	●	—	●	—	●	—	—	—	

Polyurethane coil tubing Polyurethane flat tubing

This tubing makes compact piping possible and can be used with One-touch fittings.



Description	Model	Tubing size												
		O.D. (mm)	4			6			8					
		I.D. (mm)	2.5			4			5					
		No. of tubes	1	2	3	1	2	3	1	2	3			
Polyurethane coil tubing	TCU0425B	●	●	●	—	—	—	—	—	—	—	—	—	—
	TCU0604B	—	—	—	●	●	●	—	—	—	—	—	—	—
	TCU0805B	—	—	—	—	—	—	●	—	—	—	—	—	—
Polyurethane flat tubing	TFU0425B	—	●	●	—	—	—	—	—	—	—	—	—	—
	TFU0604B	—	—	—	—	—	●	●	—	—	—	—	—	—
	TFU0805B	—	—	—	—	—	—	—	—	—	—	—	●	●

Flow Control Equipment

Speed controller

Series AS

Possible to control vacuum release air

With one-touch fitting

The tubing can be removed and installed through One-touch operation.

The body can be screwed directly to the equipment that you are using.

As a result, the piping labor can be dramatically reduced.



Model		Port size Rc	Controlled flow (ℓ/min (ANR))	Applicable tubing O.D. (mm)					
Elbow type	Universal type			3.2	4	6	8	10	12
AS1201F-M5-□□-X214	AS1301F-M5-□□-X214	M5 x 0.8	100	●	●	●	—	—	—
AS2201F-01-□□S-X214	AS2301F-01-□□S-X214	1/8	230	●	●	●	●	●	—
AS2201F-02-□□S-X214	AS2301F-02-□□S-X214	1/4	460	—	●	●	●	●	—
AS3201F-03-□□S-X214	AS3301F-03-□□S-X214	3/8	910	—	—	●	●	●	●
AS4201F-04-□□S-X214	AS4301F-04-□□S-X214	1/2	1690	—	—	—	—	●	●

* External dimensions are the same as those of Speed Controllers shown in the Best Pneumatics Vol. 15.

* At 0.5 MPa, temperature 20°C

Check valve

Series AK

Large valve capacity

Low cracking pressure/0.02 MPa



Model	Port size Rc	Effective area (mm ²)
AK2000	1/8, 1/4	27.5 (Rc 1/4)
AK4000	1/4, 3/8, 1/2	95 (Rc 1/2)
AK6000	3/4, 1	230 (Rc 1)

ZX

ZR

ZM

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ZU

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ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

ZX

ZR

ZM

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ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

Manifold Specification Sheet For Vacuum Equipment

Series ZX: For Vacuum Pump System

Manifold Specification Sheet

Please fill in the order of ① to ②.

① How to Order Manifold

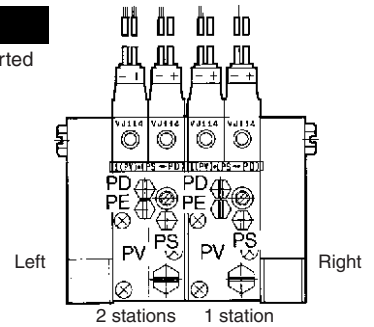
Please write model number of the manifold base together with model numbers of the vacuum module and body ported individual spacer to be manifolded.

Manifold base

ZZX1 06

Stations	Thread of supply and exhaust valve	Supply port location
01 1	Nil Rc 1/8	R Right side
⋮ ⋮	F G	L Left side
08 8	T NPTF	B Both sides

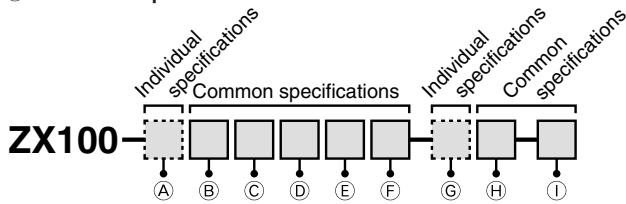
Note) Exhaust port is both sides release type.



② How to Order Vacuum Module Model for Vacuum Pump System

Fill in the blanks below with symbols of necessary specifications.

②-1 Common specifications



Number of stations

②-2 Individual specifications (Symbol A, G)

Indicate "X" for required station.

Symbol	Order of manifold (Station)	1	2	3	4	5	6	7	8
A	Standard combination	K1							
		K3							
		K6							
		K8							
		J1							
		J2							
		Nil							
		Optional combination	K2						
	K4								
	K5								
	K7								
	J3								
	J4								
	D1								
	D2								
	G	Vacuum switch, Filter	For general purpose	E					
Adsorption confirmation			PS						
Filter only			PB						
Attachment	Body ported individual interface ZX1-R1								
	Blanking plate assembly ZX1-BM1								

Note) Low wattage type is 12, 24 VDC.

Common Specifications (Symbol B, C, D, E, F, G, H, I)

B Pilot valve specifications		E Light/Surge voltage suppressor	
Nil	DC: 1 W (With indicator light: 1.05 W)	Nil	None
Y*	AC DC: 0.45 W (With indicator light: 0.5 W)	Z	With light/surge voltage suppressor (Possible only solenoid valve connector type.)
* Available only 12, 24 VDC		S	With surge voltage suppressor
C Solenoid valve rated voltage		F Manual override	
1*	100 VAC, 50/60 Hz	Nil	Non-locking push type
3*	110 VAC, 50/60 Hz	B	Slotted locking type
5	24 VDC		
6	12 VDC	H Vacuum switch wiring specifications	
V	6 VDC	Nil	Grommet type
S	5 VDC	L	Lead wire length 0.6 m
R	3 VDC	C	Lead wire length 3 m
Nil	Air operated	CL	Lead wire length 0.6 m
		CN	Lead wire length 3 m
		Nil	Without connector

* Applicable to only plug connector.
Attached connector assembly with rectifier.

D Electrical entry

L Plug connector type		I PV/V port size	
LN	Lead wire length 0.3 m	Nil	M5 x 0.8
LO	Without lead wire (Applicable to only DC)	Y	M6 x 1 (Option)
LM	Without connector		
MN	Lead wire length 0.3 m		
MO	Without lead wire (Applicable to only DC)		
G	Without connector		
H	Lead wire length 0.3 m (Applicable to only DC)		
Nil	Lead wire length 0.6 m (Applicable to only DC)		
Nil	Air operated		

Note) When "F" is required, it is Nil.

I PV/V port size

Nil	M5 x 0.8
Y	M6 x 1 (Option)

Note) VJ100 M type connector is not accepted.

Individual Specifications (Symbol A, G)

A Combination of supply valve and release valve

Type	Symbol	Supply valve	Supply valve
Standard	K1	N.C. (VJ114)	N.C. (VJ114)
	K3	N.O. (VJ324)	N.C. (VJ314)
	K6	Air operated (ZX1A)	External release (ZX1A)
	K8	Air operated N.O. (VJA324)	Air operated N.C. (VJA314)
	J1	N.C. (VJ114)	None
	J2	N.O. (VJ324)	None
	Nil	Without valve module	None
	K2	N.C. (VJ114)	External release (ZX1A)
	K4	N.O. (VJ324)	Air operated N.C. (VJA314)
	K5	Air operated (ZX1A)	N.C. (VJ114)
Option	K7	Air operated N.O. (VJA324)	N.C. (VJ314)
	J3	Air operated (ZX1A)	None
	J4	Air operated N.O. (VJA324)	None
	D1	None	N.C. (VJ114)
	D2	None	N.C. (VJ314)
	D3	None	External release (ZX1A)
	D4	None	Air operated N.C. (VJA314)

- Air operated valve is controlled by external 3 port valve.
- External release is done directly from external 2 port valve.

G Vacuum switch module/Filter unit

E Vacuum switch (For general purpose)		
PS	Adsorption confirmation switch	Nozzle dia. (ø0.3 to 0.7)
PB	switch	Nozzle dia. (ø0.5 to 1.2)
F		Only suction filter

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

Series ZM

Manifold Specification Sheet

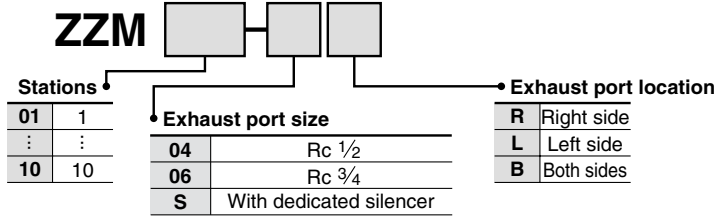
Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

Please fill in the order of ① to ②.

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

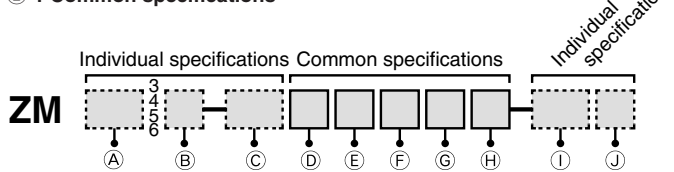
Manifold base



② How to Order Ejector

Fill in the blanks below with symbols of necessary specifications.

②-1 Common specifications



Number of stations

②-2 Individual specifications (Symbol A, B, C, I, J)

Indicate "X" for required station.

Symbol	Order of manifold (Station)	1	2	3	4	5	6	7	8	9	10
A	Nozzle diameter	05									
		07									
		10									
		13									
B	Supply pressure	H									
		M									
	Supply port	Common									
		Individual									
C	Valve	J									
		K									
		A									
		B									
		P5									
		Q5									
I	Switch model	None									
		E14									
		E15									
		E16									
		E17									
		E18									
		E19									
		M15									
		M21									
		J	Switch lead wire length	ZSE1	Nil						
L											
C											
ZSM1	CL										
	CN										
	Nil										
L											

Common Specifications (Symbol D, E, F, G, H)

D Pilot valve specifications		G Light/Surge voltage suppressor	
Nil	DC: 1 W (With indicator light: 1.05 W)	Nil	Without light/surge voltage suppressor
	AC	S	With surge voltage suppressor
Y*	DC: 0.45 W (With indicator light: 0.5 W)	Z	With light/surge voltage suppressor
* Available only 12, 24 VDC		* When (G) or (H) is required, symbol is nil.	
E Solenoid valve rated voltage		* For AC, there is no "S" specifications, since it is integral with converter.	
5	24 VDC	H Manual override	
6	12 VDC	Nil	Non-locking push type
V	6 VDC	B	Slotted locking type
S	5 VDC		
R	3 VDC		
1	100 VAC 50/60 Hz		
3	110 VAC 50/60 Hz		

F Electrical entry

G	Grommet (Lead wire length 300 mm)
H	Grommet (Lead wire length 600 mm)
L	With lead wire
LN	Without lead wire
LO	Without connector

For AC, only "L" or "LO" is available.

Individual Specifications (Symbol A, B, C, I, J)

A Nozzle nominal diameter		C Valve specifications	
05	0.5 mm	J	Supply valve (N.C.)
07	0.7 mm	K	Supply valve + Vacuum release valve
10	1.0 mm	A	Supply valve (N.O.) only
13	1.3 mm	B	Supply valve (N.O.) + Vacuum release valve
B Standard supply pressure		P	Air operated valve, Supply valve only
H	0.5 MPa {5.1 kgf/cm ² }	Q	Air operated valve, Supply valve + Release valve
M	0.35 MPa {3/6 kgf/cm ² } (Except 0.5)	Nil	Without valve

I Switch part no.

Nil			Without switch	
E14	1 point setting	With analog output	3 rotations setting	Electronic (12 to 24 VDC)
E15			200 setting	
E16	2 points setting	With analog output	3 rotations setting	
E17			200 setting	
E18	1 point setting	With analog output	3 rotations setting	
E19			200 setting	
M15	1 point setting	With analog output	18 rotations setting	Diaphragm solid state switch (10 to 26 VDC)
M21	1 point setting	With analog output	18 rotations setting	Diaphragm reed switch (100 VAC)

Note) Low wattage type is, 12, 24 VDC.

J Switch lead wire length

Nil	Grommet type	Lead wire length 0.6 m	Electronic: ZSE1
L	Grommet type	Lead wire length 3 m	
C	Connector type	Lead wire length 0.6 m	
CL		Lead wire length 3 m	
CN		Without connector	
Nil	Grommet type	Lead wire length 0.6 m	
L	Grommet type	Lead wire length 3 m	

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

ZX

ZR

ZM

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

ZYY3000: Individual Wiring Type

DIN rail manifold

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

Manifold Specification Sheet

Please fill in the order of ① to ④.

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYY3-45 - [] - [] - [] - [] - **J** - [] - []

Ejector/Valve total stations

Symbol	Stations
02	2
⋮	⋮
20	20

Includes number of blanking plate ass'y.

SUP/EXH block assembly mounting position

Symbol	Mounting position	Number of applicable stations
U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 20 stations
M	Special specifications	

When creating the special specifications, complete the stations table on the right.

SUP/EXH block assembly specifications

Symbol	Specifications
Nil	Standard, Internal pilot specifications
R *	External pilot specifications
S *	Internal pilot, Built-in silencer
RS *	External pilot, Built-in silencer

* Made to order.

Ejector mounting position

Symbol	Mounting position
U	U side
D	D side

Number of ejectors 1 to 10 stations

A, B port size (Valve only)

Symbol	Specifications
C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When using both types, specify C4 and C6 specifically; do not just use "X" marking.

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.

ZYY3 [A] [B] [C] [D] [E] [F] [G] [H] [I] [J] [K]

A Rated voltage DC specifications

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

AC specifications (50/60 HZ)

1	100 VAC
2	200 VAC
3	110 VAC (115 V)
4	220 VAC (230 V)

B Electrical entry

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

C Light/Surge voltage suppressor

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	Without light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	Without light/surge voltage suppressor (Non-polar type)

Note) • "U", "R" are available only for 24 VDC.
• In the case of AC voltage, since connector assembly with rectifier prevents the generation of surge voltage, Type "S" is not available.

D Manual override

Nil	Non-locking push type
D	Push-locking slotted type
E	Push-locking manual type

E Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

F Max. vacuum pressure

S	-84 kPa
L	-53 kPa

G Silencer

Nil	None
1	With silencer

H Vacuum switch

Nil	None
E	With vacuum switch

I Output specifications (Vacuum switch)

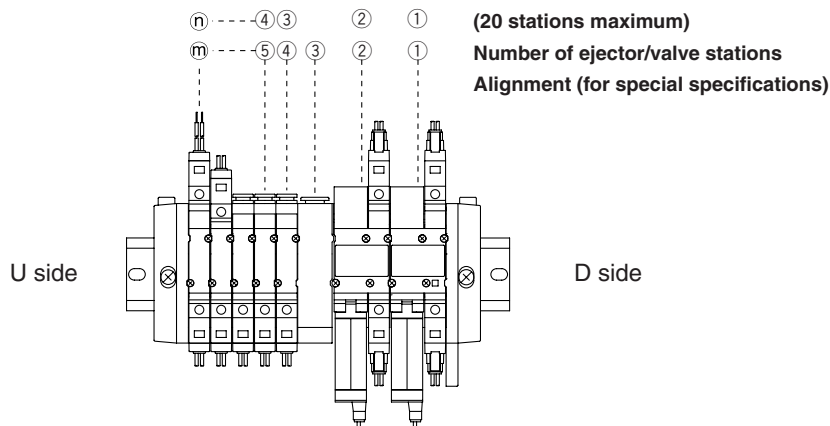
14	NPN open collector, single output No analog output, 3 turn-set
15	NPN open collector, single output No analog output, 200 degree set
16	NPN open collector, double output No analog output, 3 turn-set
17	NPN open collector, double output No analog output, 200 degree set
18	NPN open collector, single output With analog output, 3 turn-set
19	NPN open collector, single output With analog output, 200 degree set
55	PNP open collector, single output No analog output, 200 degree set

J Wiring specifications (Vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L	Grommet type	Lead wire length 3 m
C	Connector type	Lead wire length 0.6 m
CL		Lead wire length 3 m
CN		Connector type

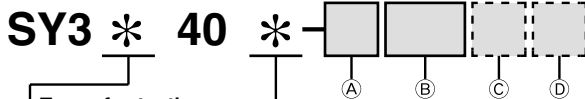
K Manifold block

Nil	With manifold block
MN	None



③ Valve Model

Fill in the blanks below with symbols of necessary specifications.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Indicate it with the following stations table.

Pilot type

Nil	External pilot
R	Internal pilot

When using a valve for external pilot, check "X" for external pilot specifications.

Ⓐ Rated voltage DC specifications

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

AC specifications (50/60 HZ)

1	100 VAC
2	200 VAC
3	110 VAC (115 V)
4	220 VAC (230 V)

Ⓑ Electrical entry

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

Ⓒ Light/Surge voltage suppressor

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	With light/surge voltage suppressor
R	With surge voltage suppressor (Non-polar type)
U	With light/surge voltage suppressor (Non-polar type)

Note) • "U", "R" are available only for 24 VDC.
• In the case of AC voltage, since connector assembly with rectifier prevents the generation of surge voltage, Type "S" is not available.

Ⓓ Manual override

Nil	Non-locking push type
D	Push-locking slotted type
E	Push-locking manual type

ZX

ZR

ZM

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

④ Stations

Indicate "X" for the position of ejector/valve, etc.

Number of valve stations or alignment				20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity					
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																									
			Without silencer	Without switch																									
		Vacuum pressure L	With silencer	With switch																									
			Without silencer	Without switch																									
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																									
			Without silencer	Without switch																									
		Vacuum pressure L	With silencer	With switch																									
			Without silencer	Without switch																									
Non plug assembly																													
Valve specifications	2 position	Single solenoid																											
		Double solenoid																											
	3 position	Closed center																											
		Exhaust center																											
		Pressure center																											
	Blanking plate assembly																												
Complete when ordering special specifications.																													
SUP block disk																													
EXH block disk																													
Attachment	Individual SUP spacer assembly																												
	Individual EXH spacer assembly																												

- Note
- Non plug assembly: ZYY3000-NPA
 - Blanking plate assembly: SX3000-75-1A
 - SUP block disk: SX3000-77-1A
 - EXH block disk: SX3000-77-1A (2 pcs / 1 location)
 - Individual SUP spacer assembly: SY3000-38-2A
 - Individual EXH spacer assembly: SY3000-39-2A
 - SUP/EXH block assembly (Standard): SX3000-51-1A
 - SUP/EXH block assembly (for R): SX3000-51-3A
 - SUP/EXH block assembly (for S): SX3000-51-4A
 - SUP/EXH block assembly (for RS): SX3000-51-5A

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.	Part no.	Qty.	Order no.

Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

ZYY3000: Connector Box Type

DIN rail manifold

Manifold Specification Sheet

Please fill in the order of ① to ④.

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYY3-45 **J**

Specifications

A	With connector box (+COM specifications)
NA	With connector box (-COM specifications)

Types of attached lead wires are different.

Mounting position of connector box

U	U side
D	D side

Ejector/Valve total stations

02	2	Up to 16 solenoid available
⋮	⋮	
15	15	

Includes number of blanking plate assembly.

SUP/EXH block assembly specifications

Nil	Standard, Internal pilot specification
R *	External pilot specifications
S *	Internal pilot, Built-in silencer
RS *	External pilot, Built-in silencer

* Made to order

SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 15 stations
M	Special specifications	

When creating the special specifications, complete the stations table on the right.

Ejector mounting position

U	U side
D	D side

Number of ejectors 1 to 7 stations

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When using both types, specify C4 and C6 specifically; do not just use "X" marking.

A, B port size (Valve only)

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.

ZYY3 5 LO U

A L type connector
Rated voltage 24 VDC

A Manual override

Nil	Non-locking push type
D	Push-locking slotted type
E	Push-locking manual type

B Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

C Max. vacuum pressure

S	-84 kPa
L	-53 kPa

D Silencer

Nil	None
1	With silencer

E Vacuum switch

Nil	None
E	With vacuum switch

F Output specifications (Vacuum switch)

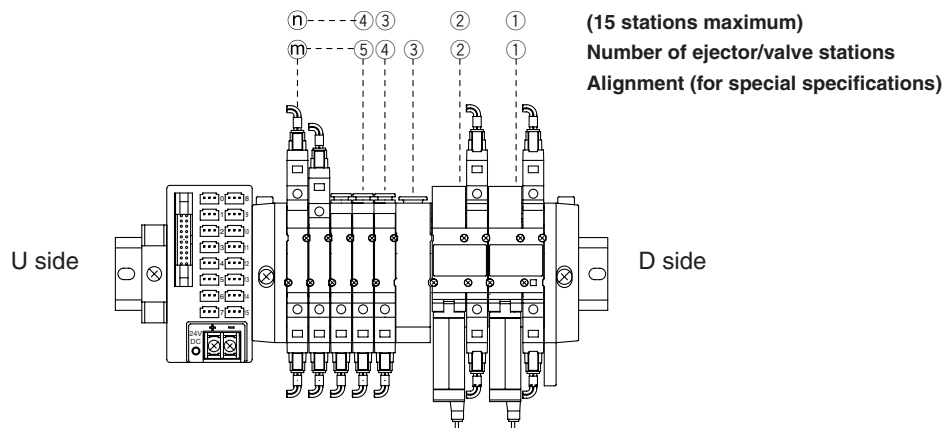
14	NPN open collector, single output No analog output, 3 turn-set
15	NPN open collector, single output No analog output, 200 degree set
16	NPN open collector, double output No analog output, 3 turn-set
17	NPN open collector, double output No analog output, 200 degree set
18	NPN open collector, single output With analog output, 3 turn-set
19	NPN open collector, single output With analog output, 200 degree set
55	PNP open collector, single output No analog output, 200 degree set

G Wiring specifications (for vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L	Grommet type	Lead wire length 3 m
C	Connector type	Lead wire length 0.6 m
CL		Lead wire length 3 m
CN		Connector type

H Manifold block

Nil	With manifold block
MN	None



③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SY3 * 40 * -5 LO U

Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Indicate it with the following stations table.

Pilot type

Nil	Internal pilot
R	External pilot

When using a valve for external pilot, check "X" for external pilot specifications.

Ⓐ Manual override

Nil	Non-locking push type
D	Push-locking slotted type
E	Push-locking manual type

L type connector

Rated voltage
24 VDC

④ Stations

Indicate "X" for the position of ejector/valve, etc.

		Number of valve stations or alignment															Quantity	
		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch														
			Without silencer	Without switch														
		Vacuum pressure L	With silencer	With switch														
			Without silencer	Without switch														
		Nozzle diameter 10	Vacuum pressure S	With silencer	With switch													
				Without silencer	Without switch													
	Vacuum pressure L		With silencer	With switch														
			Without silencer	Without switch														
	Non plug assembly																	
	Valve specifications		2 position	Single solenoid														
		Double solenoid																
		3 position	Closed center															
Exhaust center																		
Pressure center																		
Blanking plate assembly																		
Complete when ordering special specifications. SUP/EXH block assembly																		
SUP block disk																		
EXH block disk																		
Attachment		Individual SUP spacer assembly																
	Individual EXH spacer assembly																	

- Note
- Non plug assembly: ZYY3000-NPA
 - Blanking plate assembly: SX3000-75-1A
 - SUP block disk: SX3000-77-1A
 - EXH block disk: SX3000-77-1A (2 pcs / 1 location)
 - Individual SUP spacer assembly: SY3000-38-2A
 - Individual EXH spacer assembly: SY3000-39-2A
 - SUP/EXH block assembly (Standard): SX3000-51-1A
 - SUP/EXH block assembly (for R): SX3000-51-3A
 - SUP/EXH block assembly (for S): SX3000-51-4A
 - SUP/EXH block assembly (for RS): SX3000-51-5A

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

Enter the ordering number in the table. **The following columns shall be filled in by SMC.**

Part no.	Qty.	Part no.	Qty.	Order no.	Person in charge (Code no.)	Section code

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

ZYX3000: Individual Wiring Type

DIN rail manifold

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

Manifold Specification Sheet

Please fill in the order of ① to ④.

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYX3-45 **J**

Ejector/Valve total stations

Symbol	Stations
02	2
⋮	⋮
20	20

Includes number of blanking plate assembly.

SUP/EXH block assembly specifications

Symbol	Specifications
Nil	Standard, Internal pilot specifications
R *	External pilot specifications
S *	Internal pilot, Built-in silencer
RS *	External pilot, Built-in silencer

* Made to order

Ejector mounting position

Symbol	Mounting position
U	U side
D	D side

Number of ejectors 1 to 10 stations

Symbol	Specifications
C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

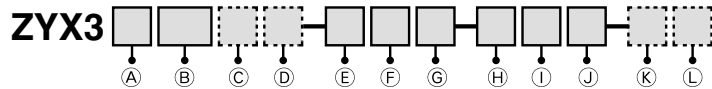
A, B port size (Valve only)

Symbol	Specifications
U	U side
D	D side

When creating the special specifications, complete the stations table on the right.

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.



A Rated voltage DC specifications

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

B Electrical entry

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

C Light/Surge voltage suppressor

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	Without light/surge voltage suppressor

D Manual override

Nil	Non-locking push type
D	Push-locking slotted type

E Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

F Max. vacuum pressure

S	-84 kPa
L	-53 kPa

G Silencer

Nil	None
1	With silencer

H Vacuum switch

Nil	None
E	With vacuum switch

① Output specifications (Vacuum switch)

14	NPN open collector, single output No analog output, 3 turn-set
15	NPN open collector, single output No analog output, 200 degree set
16	NPN open collector, double output No analog output, 3 turn-set
17	NPN open collector, double output No analog output, 200 degree set
18	NPN open collector, single output With analog output, 3 turn-set
19	NPN open collector, single output With analog output, 200 degree set
55	PNP open collector, single output No analog output, 200 degree set

② Wiring specifications (Vacuum switch)

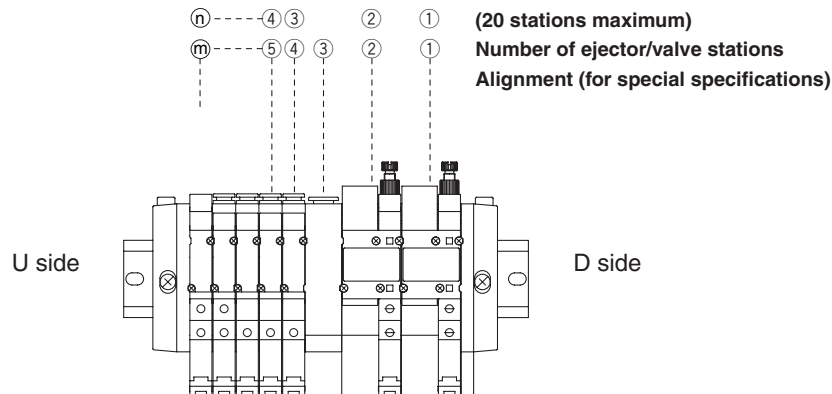
Nil	Grommet type	Lead wire length 0.6 m
L	Connector type	Lead wire length 3 m
C	Connector type	Lead wire length 0.6 m
CL		Lead wire length 3 m
CN	Connector type	

③ Plug-in/Non plug-in

Nil	Plug-in type
F	Non plug-in type

④ Manifold block

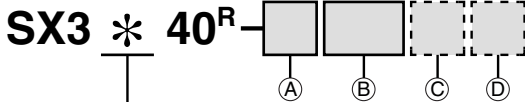
Nil	With manifold block
MN	None



③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Indicate it with the following stations table.

A Rated voltage

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

B Electrical entry

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

C Light/Surge voltage suppressor

Nil	Without light/surge voltage suppressor
S	With surge voltage suppressor
Z	Without light/surge voltage suppressor

D Manual override

Nil	Non-locking push type
D	Push-locking slotted type

④ Stations

Indicate ejector/valve, etc for 'X'. (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell (a).)

		Number of valve stations or alignment																Quantity					
		20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
Non plug assembly																							
Valve specifications	(a)	2 position	Single solenoid																				
			Double solenoid																				
		3 position	Closed center																				
			Exhaust center																				
			Pressure center																				
	Blanking plate assembly																						
Complete when ordering special specifications.		SUP/EXH block assembly																					
SUP block disk																							
EXH block disk																							
Attachment	Individual SUP spacer assembly																						
	Individual EXH spacer assembly																						

- Note
- Non plug assembly: ZYY3000-NPA
 - Blanking plate assembly: SX3000-75-1A
 - SUP block disk: SX3000-77-1A
 - EXH block disk: SX3000-77-1A (2 pcs / 1 location)
 - Individual SUP spacer assembly: SY3000-38-2A
 - Individual EXH spacer assembly: SY3000-39-2A
 - SUP/EXH block assembly (Standard): SX3000-51-1A
 - SUP/EXH block assembly (for R): SX3000-51-3A
 - SUP/EXH block assembly (for S): SX3000-51-4A
 - SUP/EXH block assembly (for RS): SX3000-51-5A

The following columns shall be filled in by SMC.

Enter the ordering number in the table.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

ZYX3000: Terminal Box Type (9 poles)

DIN rail manifold

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

Manifold Specification Sheet

Please fill in the order of ① to ④.

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYX3 - 45T [] [] [] [] [] - **J** [] []

Mounting position of connector

U	U side
D	D side

Total number of ejector/valve stations

02	2	Double wiring specifications
∴	∴	
04	4	Can accommodate up to 8 solenoids. When ordering the mixed specifications of single and double solenoids, specify the wiring.
05	5	
∴	∴	
07	7	

Includes number of blanking plate assembly.

SUP/EXH block assembly mounting position

U	U side
D	D side
B	Both sides
M	Special specifications

When creating the special specifications, complete the stations table on the right.

Ejector mounting position

U	U side
D	D side

Number of ejectors 1 to 3 stations

A, B port size (Valve only)

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When creating the mixed specifications, complete the stations table on the right.

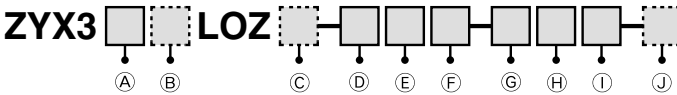
SUP/EXH block assembly specifications

Nil	Standard, Internal pilot specifications
R *	External pilot specifications
S *	Internal pilot, Built-in silencer
RS *	External pilot, Built-in silencer

* Made to order

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.



A Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

B Common specifications

Nil	Positive common
N	Negative common

Must be the same common specification as that of the manifold.

C Manual override

Nil	Non-locking push type
D	Push-locking slotted type

D Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

E Max. vacuum pressure

S	-84 kPa
L	-53 kPa

F Silencer

Nil	None
1	With silencer

G Vacuum switch

Nil	None
E	With vacuum switch

H Output specifications (Vacuum switch)

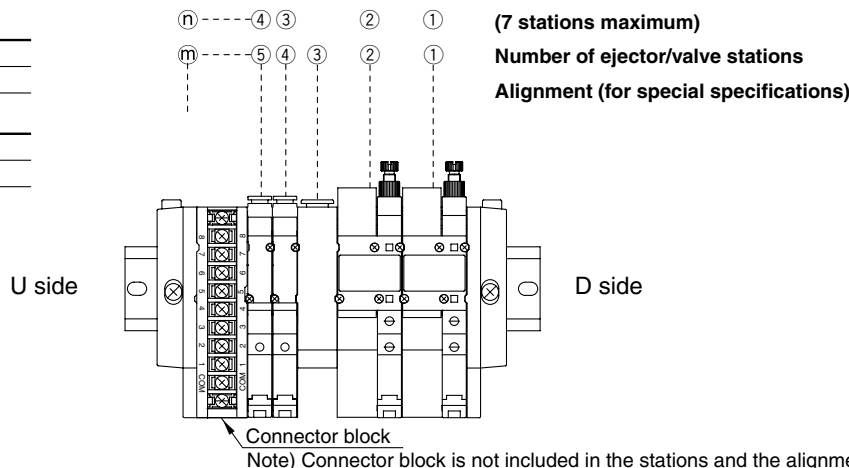
14	NPN open collector, single output No analog output, 3 turn-set
15	NPN open collector, single output No analog output, 200 degree set
16	NPN open collector, double output No analog output, 3 turn-set
17	NPN open collector, double output No analog output, 200 degree set
18	NPN open collector, single output With analog output, 3 turn-set
19	NPN open collector, single output With analog output, 200 degree set
55	PNP open collector, single output No analog output, 200 degree set

J Manifold block

Nil	With manifold block
MN	None

① Wiring specifications (Vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L	Grommet type	Lead wire length 3 m
C	Connector type	Lead wire length 0.6 m
CL	Connector type	Lead wire length 3 m
CN	Connector type	Connector type

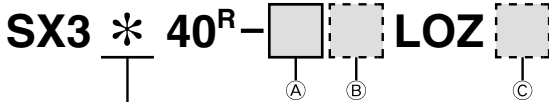


Note) Connector block is not included in the stations and the alignment.

③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Indicate it with the following stations table.

Ⓐ Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

Ⓑ Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

Ⓒ Manual override

Nil	Non-locking push type
D	Push-locking slotted type

④ Stations

Indicate ejector/valve, etc for "X". (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell ④.)

		Number of valve stations or alignment							7	6	5	4	3	2	1	Quantity	
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch													
			Without silencer	Without switch													
		Vacuum pressure L	With silencer	With switch													
			Without silencer	Without switch													
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch													
			Without silencer	Without switch													
		Vacuum pressure L	With silencer	With switch													
			Without silencer	Without switch													
Plug-in assembly																	
Valve specifications	④	2 position	Single solenoid														
			Double solenoid														
		3 position	Closed center														
			Exhaust center														
			Pressure center														
	Blanking plate assembly																
	Complete when ordering special specifications.			SUP/EXH block assembly													
	SUP block disk																
	EXH block disk																
	Attachment	Individual SUP spacer assembly															
Individual EXH spacer assembly																	
Wiring specifications		Single wiring															
		Double wiring															

Enter only when specifying the wiring.

Note • Non plug assembly: ZYY3000-NPA

- Blanking plate assembly: SX3000-75-1A
- Individual SUP spacer assembly: SY3000-38-3A
- SUP/EXH block assembly (for R): SX3000-51-6A
- SUP/EXH block assembly (for S): SX3000-51-7A
- SUP/EXH block assembly (for RS): SX3000-51-8A
- SUP block disk: SX3000-77-1A
- Individual EXH spacer assembly: SY3000-39-3A
- SUP/EXH block assembly (Standard): SX3000-51-2A
- SUP/EXH block assembly (for RS): SX3000-51-8A
- EXH block disk: SX3000-77-1A (2 pcs / 1 location)

The following columns shall be filled in by SMC.

Enter the ordering number in the table.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

ZYX3000: Terminal Box Type (18 poles)

DIN rail manifold

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

Manifold Specification Sheet

Please fill in the order of ① to ④.

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYX3 - 45T1

Mounting position of connector

U	U side
D	D side

Total number of ejector/valve stations

02	2	
⋮	⋮	Double wiring specifications
08	8	
09	9	Can accommodate up to 17 solenoids. When ordering the mixed specifications of single and double solenoids, specify the wiring.
⋮	⋮	
16	16	

Includes number of blanking plate assembly.

SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 16 stations
M	Special specifications	

When creating the special specifications complete the stations table on the right.

Ejector mounting position

U	U side
D	D side

Number of ejectors 1 to 8 stations

A, B port size (Valve only)

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When creating the mixed specifications, complete the stations table on the right.

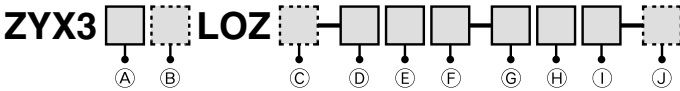
SUP/EXH block assembly specifications

Nil	Standard, Internal pilot specifications
R*	External pilot specifications
S*	Internal pilot, Built-in silencer
RS*	External pilot, Built-in silencer

* Made to order

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.



Ⓐ Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

Ⓑ Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

Ⓒ Manual override

Nil	Non-locking push type
D	Push-locking slotted type

Ⓓ Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

Ⓔ Max. vacuum pressure

S	-84 kPa
L	-53 kPa

Ⓕ Silencer

Nil	None
1	With silencer

Ⓖ Vacuum switch

Nil	None
E	With vacuum switch

Ⓗ Output specifications (vacuum switch)

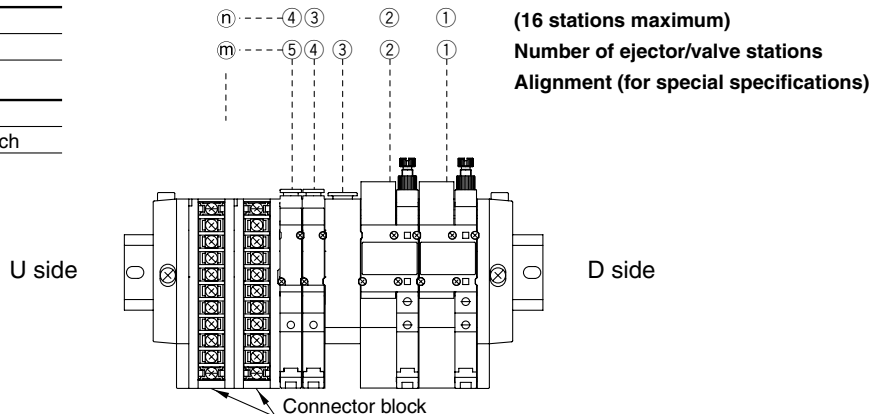
14	NPN open collector, single output No analog output, 3 turn-set	
15	NPN open collector, single output No analog output, 200 degree set	
16	NPN open collector, double output No analog output, 3 turn-set	
17	NPN open collector, double output No analog output, 200 degree set	
18	NPN open collector, single output With analog output, 3 turn-set	
19	NPN open collector, single output With analog output, 200 degree set	
55	PNP open collector, single output No analog output, 200 degree set	

Ⓙ Manifold block

Nil	With manifold block
MN	None

① Wiring specifications (Vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L		Lead wire length 3 m
C	Connector type	Lead wire length 0.6 m
CL		Lead wire length 3 m
CN		Connector type



(16 stations maximum)

Number of ejector/valve stations

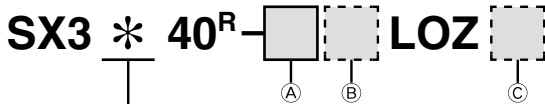
Alignment (for special specifications)

Note) Connector block is not included in the stations and the alignment.

③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Indicate it with the following stations table.

(A) Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

(B) Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

(C) Manual override

Nil	Non-locking push type
D	Push-locking slotted type

④ Stations

Indicate ejector/valve, etc for 'X'. (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell (a).)

		Number of valve stations or alignment																Quantity	
		16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1		
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch															
			Without silencer	Without switch															
		Vacuum pressure L	With silencer	With switch															
			Without silencer	Without switch															
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch															
			Without silencer	Without switch															
		Vacuum pressure L	With silencer	With switch															
			Without silencer	Without switch															
Plug-in assembly																			
Valve specifications	(a)	2 position	Single solenoid																
			Double solenoid																
		3 position	Closed center																
			Exhaust center																
	Blanking plate assembly																		
	Complete when ordering special specifications.		SUP/EXH block assembly																
SUP block disk																			
EXH block disk																			
Attachment	Individual SUP spacer assembly																		
	Individual EXH spacer assembly																		
Wiring specifications	Single wiring																		
	Double wiring																		

Enter only when specifying the wiring.

Note • Non plug assembly: ZYY3000-NPA

• Blanking plate assembly: SX3000-75-A

• SUP block disk: SX3000-77-1A

• EXH block disk: SX3000-77-1A (2 pcs/1 location)

• Individual SUP spacer assembly: SY3000-38-3A

• Individual EXH spacer assembly: SY3000-39-3A

• SUP/EXH block assembly (Standard): SX3000-51-2A

• SUP/EXH block assembly (for R): SX3000-51-6A

• SUP/EXH block assembly (for S): SX3000-51-7A

• SUP/EXH block assembly (for RS): SX3000-51-8A

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

ZX

ZR

ZM

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

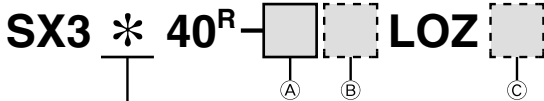
AMJ

Misc.

③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Ⓐ Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

Ⓑ Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

Ⓒ Manual override

Nil	Non-locking push type
D	Push-locking slotted type

Indicate it with the following stations table.

④ Stations

Indicate ejector/valve, etc for 'X'. (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell ②.)

		Number of valve stations or alignment								7	6	5	4	3	2	1	Quantity	
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch														
			Without silencer	Without switch														
		Vacuum pressure L	With silencer	With switch														
			Without silencer	Without switch														
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch														
			Without silencer	Without switch														
		Vacuum pressure L	With silencer	With switch														
			Without silencer	Without switch														
Plug-in assembly																		
Valve specifications	②	2 position	Single solenoid															
			Double solenoid															
		3 position	Closed center															
			Exhaust center															
			Pressure center															
	Blanking plate assembly																	
	Complete when ordering special specifications. SUP/EXH block assembly																	
SUP block disk																		
EXH block disk																		
Attachment	Individual SUP spacer assembly																	
	Individual EXH spacer assembly																	
Wiring specifications	Single wiring																	
	Double wiring																	

Enter only when specifying the wiring.

Note • Non plug assembly: ZYY3000-NPA

- Blanking plate assembly: SX3000-75-2A
- Individual SUP spacer assembly: SY3000-38-3A
- SUP/EXH block assembly (for R): SX3000-51-6A
- SUP block disk: SX3000-77-1A
- Individual EXH spacer assembly: SY3000-39-3A
- SUP/EXH block assembly (for S): SX3000-51-7A
- EXH block disk: SX3000-77-1A (2 pcs / 1 location)
- SUP/EXH block assembly (Standard): SX3000-51-2A
- SUP/EXH block assembly (for RS): SX3000-51-8A

The following columns shall be filled in by SMC.

Enter the ordering number in the table.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

ZYX3000: Flat Ribbon Cable 20 Polar Type

DIN rail manifold

Manifold Specification Sheet

Please fill in the order of ① to ④.

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.



Common specifications

Nil	Positive common
N	Negative common

Mounting position of connector

U	U side
D	D side

Total number of ejector/valve stations

02	2	Double wiring specifications
:	:	
08	8	Can accommodate up to 16 solenoids. When ordering the mixed specifications of single and double solenoids, specify the wiring.
09	9	
:	:	
15	15	Includes number of blanking plate assembly.

SUP/EXH block assembly specifications

Nil	Standard, Internal pilot specifications
R*	External pilot specifications
S*	Internal pilot, Built-in silencer
RS*	External pilot, Built-in silencer

* Made to order

SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 15 stations
M	Special specifications	

When creating the special specifications, complete the stations table on the right.

Ejector mounting position

U	U side
D	D side

Number of ejectors 1 to 7 stations

Voltage specifications

Nil	24 VDC
12V	12 VDC

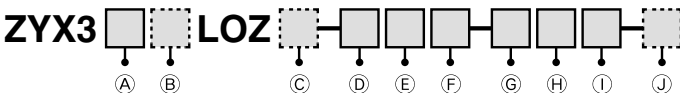
A, B port size (Valve only)

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When creating the mixed specifications, complete the stations table on the right.

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.



① Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

② Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

③ Manual override

Nil	Non-locking push type
D	Push-locking slotted type

④ Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

⑤ Max. vacuum pressure

S	-84 kPa
L	-53 kPa

⑥ Silencer

Nil	None
1	With silencer

⑦ Vacuum switch

Nil	None
E	With vacuum switch

⑧ Output specifications (Vacuum switch)

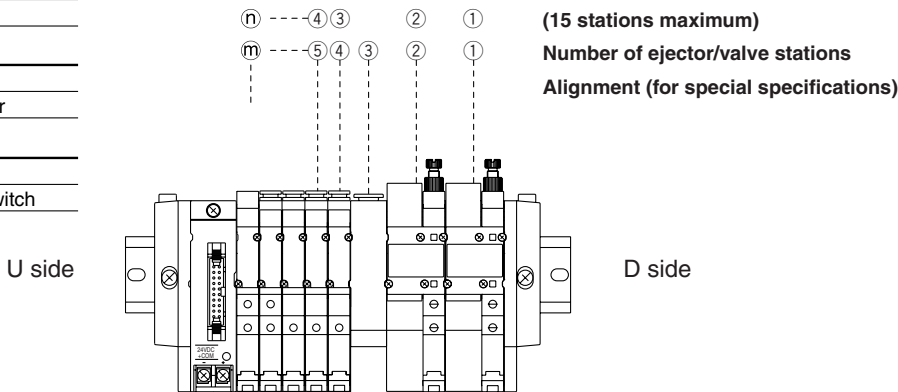
14	NPN open collector, single output No analog output, 3 turn-set
15	NPN open collector, single output No analog output, 200 degree set
16	NPN open collector, double output No analog output, 3 turn-set
17	NPN open collector, double output No analog output, 200 degree set
18	NPN open collector, single output With analog output, 3 turn-set
19	NPN open collector, single output With analog output, 200 degree set
55	PNP open collector, single output No analog output, 200 degree set

⑨ Wiring specifications (Vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L	Connector type	Lead wire length 3 m
C		Lead wire length 0.6 m
CL	Connector type	Lead wire length 3 m
CN		Connector type

⑩ Manifold block

Nil	With manifold block
MN	None



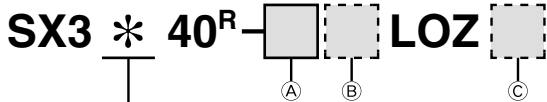
(15 stations maximum)
Number of ejector/valve stations
Alignment (for special specifications)

Note) Connector block is not included in the stations and the alignment.

③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

(A) Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

(B) Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

(C) Manual override

Nil	Non-locking push type
D	Push-locking slotted type

Indicate it with the following stations table.

④ Stations

Indicate ejector/valve, etc for 'X'. (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell (a).)

		Number of valve stations or alignment											15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity	
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																									
			Without silencer	Without switch																									
		Vacuum pressure L	With silencer	With switch																									
			Without silencer	Without switch																									
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																									
			Without silencer	Without switch																									
		Vacuum pressure L	With silencer	With switch																									
			Without silencer	Without switch																									
Plug-in assembly																													
Valve specifications	(a)	2 position	Single solenoid																										
			Double solenoid																										
		3 position	Closed center																										
			Exhaust center																										
			Pressure center																										
	Blanking plate assembly																												
	Complete when ordering special specifications.		SUP/EXH block assembly																										
	SUP block disk																												
	EXH block disk																												
	Attachment	Individual SUP spacer assembly																											
Individual EXH spacer assembly																													
Wiring specifications		Single wiring																											
		Double wiring																											

Enter only when specifying the wiring.

- Note
- Non plug assembly: ZYY3000-NPA
 - Blanking plate assembly: SX3000-75-2A
 - SUP block disk: SX3000-77-1A
 - EXH block disk: SX3000-77-1A (2 pcs/location)
 - Individual SUP spacer assembly: SY3000-38-3A
 - Individual EXH spacer assembly: SY3000-39-3A
 - SUP/EXH block assembly (Standard): SX3000-51-2A
 - SUP/EXH block assembly (for R): SX3000-51-6A
 - SUP/EXH block assembly (for S): SX3000-51-7A
 - SUP/EXH block assembly (for RS): SX3000-51-8A

The following columns shall be filled in by SMC.

Enter the ordering number in the table.

Part no.	Qty

Part no.	Qty

Order no.	
Person in charge (Code no.)	
Section code	

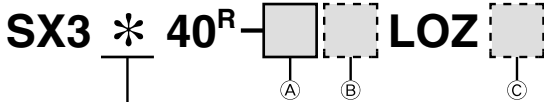
Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Indicate it with the following stations table.

Ⓐ Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

Ⓑ Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

Ⓒ Manual override

Nil	Non-locking push type
D	Push-locking slotted type

④ Stations

Indicate ejector/valve, etc for 'X'. (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell Ⓐ.)

		Number of valve stations or alignment																	Quantity				
		19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1			
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
Plug-in assembly																							
Valve specification	Ⓐ	2 position	Single solenoid																				
			Double solenoid																				
		3 position	Closed center																				
			Exhaust center																				
			Pressure center																				
	Blanking plate assembly																						
	Complete when ordering special specifications.		SUP/EXH block assembly																				
SUP block disk																							
EXH block disk																							
Attachment	Individual SUP spacer assembly																						
	Individual EXH spacer assembly																						
Wiring specifications		Single wiring																					
		Double wiring																					

Enter only when specifying the wiring.

Note • Non plug assembly: ZYY3000-NPA

• Blanking plate assembly: SX3000-75-2A

• SUP block disk: SX3000-77-1A

• EXH block disk: SX3000-77-1A (2 pcs / 1 location)

• Individual SUP spacer assembly: SY3000-38-3A

• Individual EXH spacer assembly: SY3000-39-3A

• SUP/EXH block assembly (Standard): SX3000-51-2A

• SUP/EXH block assembly (for R): SX3000-51-6A

• SUP/EXH block assembly (for S): SX3000-51-7A

• SUP/EXH block assembly (for RS): SX3000-51-8A

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

ZYX3000: D-sub Connector Type

DIN rail manifold

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

Manifold Specification Sheet

Please fill in the order of ① to ④.

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYX3 - 45 [] **F** [] [] [] [] [] [] **J** [] []

Common specifications

Nil	Positive common
N	Negative common

Mounting position of connector

U	U side
D	D side

Total number of ejector/valve stations

02	2 stations	Double wiring specifications
⋮	⋮	
10	10 stations	Can accommodate up to 20 solenoids. When ordering the mixed specifications of single and double solenoids, Specify the wiring.
11	11 stations	
⋮	⋮	
19	19 stations	

Includes number of blanking plate assembly.

SUP/EXH block assembly specifications

Nil	Standard, Internal pilot specifications
R*	External pilot specifications
S*	Internal pilot, Built-in silencer
RS*	External pilot, Built-in silencer

* Made to order

SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 19 stations
M	Special specifications	

When creating the special specifications, complete the stations table on the right.

Ejector mounting position

U	U side
D	D side

Number of ejectors 1 to 10 stations

Voltage specifications

Nil	24 VDC
12V	12 VDC

A, B port size (Valve only)

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When creating the mixed specifications, complete the stations table on the right.

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.

ZYX3 [A] [B] **LOZ** [C] [D] [E] [F] [G] [H] [I] [J]

A Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

B Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

C Manual override

Nil	Non-locking push type
D	Push-locking slotted type

D Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

E Max. vacuum pressure

S	-84 kPa
L	-53 kPa

F Silencer

Nil	None
1	With silencer

G Vacuum switch

Nil	None
E	With vacuum switch

H Output specifications (Vacuum switch)

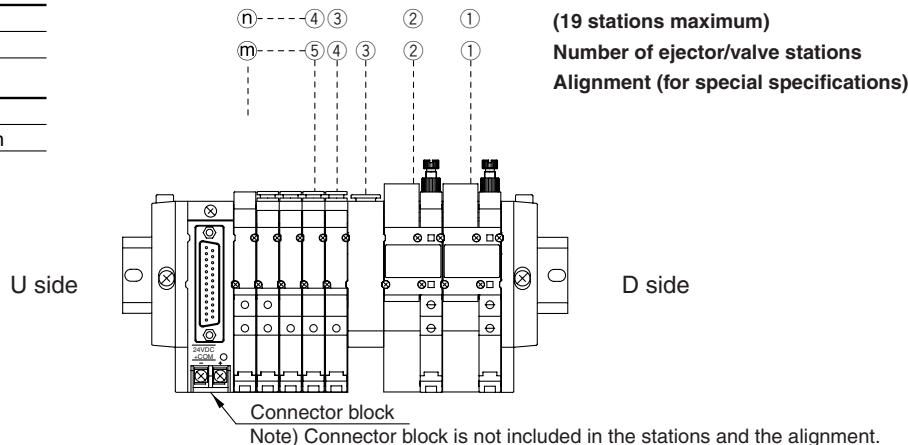
14	NPN open collector, single output No analog output, 3 turn-set	
15	NPN open collector, single output No analog output, 200 degree set	
16	NPN open collector, double output No analog output, 3 turn-set	
17	NPN open collector, double output No analog output, 200 degree set	
18	NPN open collector, single output With analog output, 3 turn-set	
19	NPN open collector, single output With analog output, 200 degree set	
55	PNP open collector, single output No analog output, 200 degree set	

I Wiring specifications (Vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L	Connector type	Lead wire length 3 m
C	Connector type	Lead wire length 0.6 m
CL		Lead wire length 3 m
CN		Connector type

J Manifold block

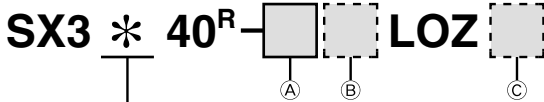
Nil	With manifold block
MN	None



③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Indicate it with the following stations table.

Ⓐ Rated voltage

5	24 VDC
6	12 VDC

Must be the same voltage as that of the manifold.

Ⓑ Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

Ⓒ Manual override

Nil	Non-locking push type
D	Push-locking slotted type

④ Stations

Indicate ejector/valve, etc for 'X'. (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell Ⓐ.)

		Number of valve stations or alignment																	Quantity				
		19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1			
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
Plug-in assembly																							
Valve specifications	Ⓐ	2 position	Single solenoid																				
			Double solenoid																				
		3 position	Closed center																				
			Exhaust center																				
			Pressure center																				
	Blanking plate assembly																						
	Complete when ordering special specifications.		SUP/EXH block assembly																				
	SUP block disk																						
	EXH block disk																						
	Attachment	Individual SUP spacer assembly																					
Individual EXH spacer assembly																							
Wiring specifications		Single wiring																					
		Double wiring																					

Enter only when specifying the wiring.

Note • Non plug assembly: ZYY3000-NPA

• Blanking plate assembly: SX3000-75-2A

• SUP block disk: SX3000-77-1A

• EXH block disk: SX3000-77-1A (2 pcs / 1 location)

• Individual SUP spacer assembly: SY3000-38-3A

• Individual EXH spacer assembly: SY3000-39-3A

• SUP/EXH block assembly (Standard): SX3000-51-2A

• SUP/EXH block assembly (for R): SX3000-51-6A

• SUP/EXH block assembly (for S): SX3000-51-7A

• SUP/EXH block assembly (for RS): SX3000-51-8A

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty

Part no.	Qty

Order no.	
Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

ZYX3000: Serial Wiring Type (Integrated)

DIN rail manifold

Manifold Specification Sheet

Please fill in the order of ① to ④.

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYX3 - 45S

Applicable model

0	Without SI unit
A*	General purpose type: Series EX3000
B	Mitsubishi Electric Corp.: MELSECNET MINI-S3 Data Link System
C	OMRON Corp.: SYSBUS Wire System
D	SHARP Corp.: Satellite I/O Link System
E	Matsushita Electric Works, Ltd.: MEWNET-F System
F1	NKE Corp.: Uni-wire System (16 points output)
G	Rockwell Automation, Inc: Allen Bradley Remote I/O (RIO) system
J1	SUNX Corp.: S-LINK system (16 points output)
J2	SUNX Corp.: S-LINK system (16 points output)
K	Fuji Electric Co., Ltd.: T Link Mini System
Q	DeviceNet, OMRON Corp.: CompoBus/D
R1	OMRON Corp.: CompoBus/S (16 points output)
R2	OMRON Corp.: CompoBus/S (8 points output)

* For the general purpose type, a transmission unit is required on the CPU side.

SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 15 stations
M	Special specifications	

When creating the special specifications, complete the stations table on the right.

Total number of ejector/valve stations

02	2	Double wiring specification
:	:	
08	8	Can accommodate up to 16 solenoids. When ordering the mixed specifications of single and double solenoids, specify the wiring.
:	:	
09	9	Includes number of blanking plate assembly.
:	:	
15	15	

Ejector mounting position

U	U side
D	D side

Number of ejectors 1 to 7 stations

A, B port size (Valve only)

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When creating the mixed specifications, complete the stations table on the right.

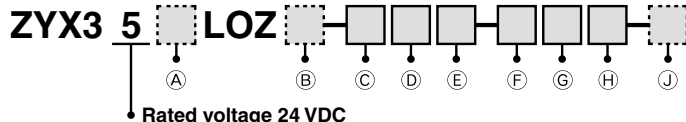
SUP/EXH block assembly specifications

Nil	Standard, Internal pilot specifications
R*	External pilot specifications
S*	Internal pilot, Built-in silencer
RS	External pilot, Built-in silencer

* Made to order

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.



Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

Manual override

Nil	Non-locking push type
D	Push-locking slotted type

Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

Max. vacuum pressure

S	-84 kPa
L	-53 kPa

Silencer

Nil	None
1	With silencer

Vacuum switch

Nil	None
E	With vacuum switch

Output specifications (Vacuum switch)

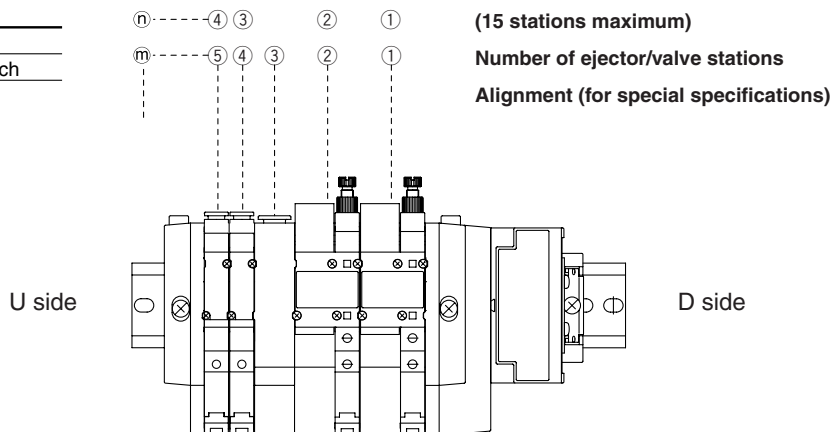
14	NPN open collector, single output No analog output, 3 turn-set
15	NPN open collector, single output No analog output, 200 degree set
16	NPN open collector, double output No analog output, 3 turn-set
17	NPN open collector, double output No analog output, 200 degree set
18	NPN open collector, single output With analog output, 3 turn-set
19	NPN open collector, single output With analog output, 200 degree set
55	PNP open collector, single output No analog output, 200 degree set

Wiring specifications (Vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L	Grommet type	Lead wire length 3 m
C	Connector type	Lead wire length 0.6 m
CL		Lead wire length 3 m
CN	Connector type	

Manifold block

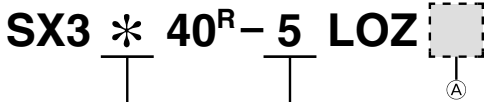
Nil	With manifold block
MN	None



③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation

Rated voltage
24 VDC

Ⓐ Manual override

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Nil	Non-locking push type
D	Push-locking slotted type

Indicate it with the following stations table.

④ Stations

Indicate ejector/valve, etc for 'X'. (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell Ⓐ.)

Number of valve stations or alignment				15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity				
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
		Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																		
				Without silencer	Without switch																		
	Vacuum pressure L	With silencer	With switch																				
		Without silencer	Without switch																				
	Plug-in assembly																						
	Valve specifications	Ⓐ	2 position	Single solenoid																			
				Double solenoid																			
			3 position	Closed center																			
Exhaust center																							
Pressure center																							
Blanking plate assembly																							
Complete when ordering special specifications.		SUP/EXH block assembly																					
SUP block disk																							
EXH block disk																							
Attachment		Individual SUP spacer assembly																					
	Individual EXH spacer assembly																						
Wiring specifications		Single wiring																					
		Double wiring																					

Enter only when specifying the wiring.

Note • Non plug assembly: ZYY3000-NPA

• Blanking plate assembly: SX3000-75-A

• SUP block disk: SX3000-77-1A

• EXH block disk: SX3000-77-1A (2 pcs / 1 location)

• Individual SUP spacer assembly: SY3000-38-3A

• Individual EXH spacer assembly: SY3000-39-3A

• SUP/EXH block assembly (Standard): SX3000-51-2A

• SUP/EXH block assembly (for R): SX3000-51-6A

• SUP/EXH block assembly (for S): SX3000-51-7A

• SUP/EXH block assembly (for RS): SX3000-51-8A

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.

SX3 * 40^R - 5 LOZ [Ⓐ]

Type of actuation	Rated voltage 24 VDC
1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Ⓐ Manual override	
Nil	Non-locking push type
D	Push-locking slotted type

Indicate it with the following stations table.

④ Stations


Indicate ejector/valve, etc for "X". (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell ②.)

Number of valve stations or alignment					15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity		
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																		
			Without silencer	Without switch																		
			Without silencer	With switch																		
		Vacuum pressure L	With silencer	With switch																		
			Without silencer	Without switch																		
			Without silencer	With switch																		
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																		
			Without silencer	Without switch																		
			Without silencer	With switch																		
		Vacuum pressure L	With silencer	With switch																		
			Without silencer	Without switch																		
			Without silencer	With switch																		
Plug-in assembly																						
Valve specifications	②	2 position	Single solenoid																			
			Double solenoid																			
		3 position	Closed center																			
			Exhaust center																			
			Pressure center																			
	Blanking plate assembly																					
	Complete when ordering special specifications. SUP/EXH block assembly																					
	SUP block disk																					
	EXH block disk																					
	Attachment	Individual SUP spacer assembly																				
Individual EXH spacer assembly																						
Wiring specifications		Single wiring																				
		Double wiring																				

Enter only when specifying the wiring.

- Note
- Non plug assembly: ZYY3000-NPA
 - Blanking plate assembly: SX3000-75-A
 - SUP block disk: SX3000-77-1A
 - EXH block disk: SX3000-77-1A (2 pcs / 1 location)
 - Individual SUP spacer assembly: SY3000-38-3A
 - Individual EXH spacer assembly: SY3000-39-3A
 - SUP/EXH block assembly (Standard): SX3000-51-2A
 - SUP/EXH block assembly (for R): SX3000-51-6A
 - SUP/EXH block assembly (for S): SX3000-51-7A
 - SUP/EXH block assembly (for RS): SX3000-51-8A

Enter the ordering number in the table. **The following columns shall be filled in by SMC.**

Part no.	Qty.	Part no.	Qty.	Order no.	
				Person in charge (Code no.)	
				Section code	
				 Note) Mounting SUP/EXH block assembly When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.	

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

ZYX3000: For Serial Transmission Unit by SMC
DIN rail manifold (IN313)

Customer name			
Contact person			
Sheet number			
P.O. number	Quantity	set(s)	
Equipment	Date required		

Manifold Specification Sheet

Please fill in the order of ① to ⑤.

① How to Order Manifold

Fill in the blanks below with symbols of necessary specifications.

ZZYX3-45S2

Mounting position of SI unit

U	U side
D	D side

Total number of ejector/valve stations

02	2	
:	:	Double wiring specifications
08	8	
09	9	Can accommodate up to 16 solenoids.
:	:	When ordering the mixed specifications of single and double solenoids, specify the wiring.
15	15	

Includes number of blanking plate assembly

SUP/EXH block assembly specifications

Nil	Standard, Internal pilot specifications
R*	External pilot specifications
S*	Internal pilot, Built-in silencer
RS*	External pilot, Built-in silencer

* Made to order

SUP/EXH block assembly mounting position

U	U side	2 to 10 stations
D	D side	
B	Both sides	2 to 15 stations
M	Special specification	

When creating the special specifications, complete the stations table on the right.

Ejector mounting position

U	U side
D	D side

Number of ejectors 1 to 7 stations

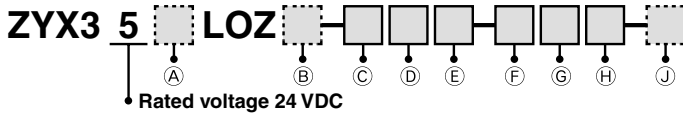
A, B port size (Valve only)

C4	ø4 One-touch fitting
C6	ø6 One-touch fitting
M	Mixed

When creating the mixed specifications, complete the stations table on the right.

② Ejector Valve Model

Fill in the blanks below with symbols of necessary specifications.



A Common specifications

Nil	Positive common
N	Negative common

Must be the same common specifications as that of the manifold.

B Manual override

Nil	Non-locking push type
D	Push-locking slotted type

C Nozzle diameter

07	ø0.7 mm
10	ø1.0 mm

D Max. vacuum pressure

S	-84 kPa
L	-53 kPa

E Silencer

Nil	None
1	With silencer

F Vacuum switch

Nil	None
E	With vacuum switch

G Output specifications (Vacuum switch)

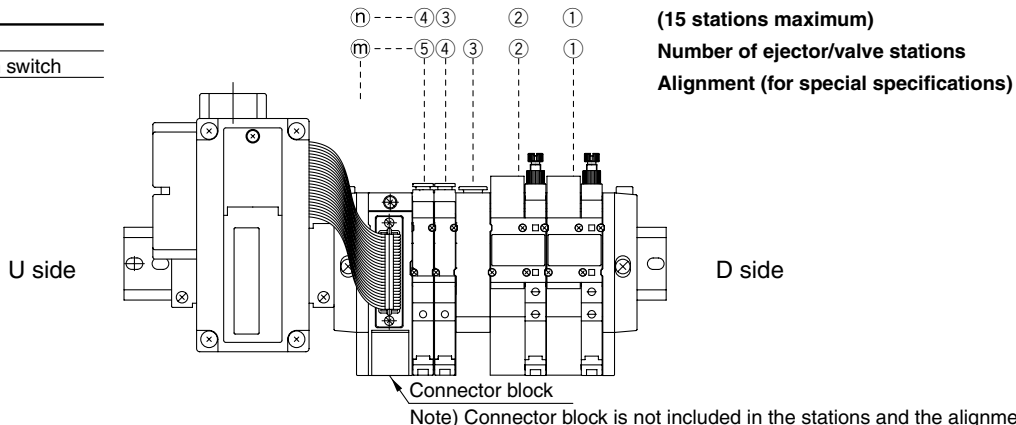
14	NPN open collector, single output No analog output, 3 turn-set
15	NPN open collector, single output No analog output, 200 degree set
16	NPN open collector, double output No analog output, 3 turn-set
17	NPN open collector, double output No analog output, 200 degree set
18	NPN open collector, single output With analog output, 3 turn-set
19	NPN open collector, single output With analog output, 200 degree set
55	PNP open collector, single output No analog output, 200 degree set

H Wiring specifications (Vacuum switch)

Nil	Grommet type	Lead wire length 0.6 m
L	Grommet type	Lead wire length 3 m
C	C connector type	Lead wire length 0.6 m
CL		Lead wire length 3 m
CN	Connector type	

J Manifold block

Nil	With manifold block
MN	None



③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.

SX3 * 40^R - 5 LOZ A

Type of actuation

Rated voltage
24 VDC

A Manual override

1	2 position single solenoid
2	2 position double solenoid
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Nil	Non-locking push type
D	Push-locking slotted type

Indicate it with the following stations table.

④ Stations

Indicate ejector/valve, etc for "X". (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell @.)

Number of valve stations or alignment				15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity				
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
			With silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
			With silencer	Without switch																			
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
			With silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
			With silencer	Without switch																			
Plug-in assembly																							
Valve specifications	①	2 position	Single solenoid																				
			Double solenoid																				
		3 position	Closed center																				
			Exhaust center																				
			Pressure center																				
	Blanking plate assembly																						
	Complete when ordering special specifications.		SUP/EXH block assembly																				
	SUP block disk																						
	EXH block disk																						
	Attachment	Individual SUP spacer assembly																					
Individual EXH spacer assembly																							
Wiring specifications	Single wiring																						
	Double wiring																						

Enter only when specifying the wiring.

Note • Non plug assembly: ZYY3000-NPA

• Blanking plate assembly: SX3000-75-A

• SUP block disk: SX3000-77-1A

• EXH block disk: SX3000-77-1A (2 pcs / 1 location)

• Individual SUP spacer assembly: SY3000-38-3A

• Individual EXH spacer assembly: SY3000-39-3A

• SUP/EXH block assembly (Standard): SX3000-51-2A

• SUP/EXH block assembly (for R): SX3000-51-6A

• SUP/EXH block assembly (for S): SX3000-51-7A

• SUP/EXH block assembly (for RS): SX3000-51-8A

⑤ Compliant SI Unit

IN313 -

Compliant manufacturers

MB1	Mitsubishi Electric Corporation	TY2	Toyoda Machine Works, Ltd.
TA1	OMRON Corporation	PA1	Matsushita Electric Works, Ltd.
FU1	Fuji Electric Co., Ltd.	HT1	Hitachi, Ltd.
SH1	SHARP Corporation	AB1	Rockwell Automation, Inc. (Allan Bradley)
TY1	Toyoda Machine Works, Ltd.	TS1	Toshiba Corporation

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.

Part no.	Qty.

Order no.	
Person in charge (Code no.)	
Section code	

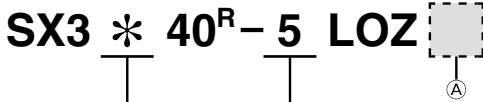
Note) Mounting SUP/EXH block assembly
When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.

③ Valve Model

Fill in the blanks below with symbols of necessary specifications.

SX3*40 is for internal pilot.
SX3*40R is for external pilot.



Type of actuation	Rated voltage
1 2 position single solenoid	24 V DC
2 2 position double solenoid	
3 3 position closed center	
4 3 position exhaust center	
5 3 position pressure center	

Ⓐ Manual override	
Nil	Non-locking push type
D	Push-locking slotted type

Indicate it with the following stations table.

④ Stations

Indicate ejector/valve, etc for "X". (When port sizes for A, B ports are mixed, indicate C4 or C6 in cell Ⓐ.)

Number of valve stations or alignment				15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	Quantity				
Ejector Specifications	Nozzle diameter 07	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
	Nozzle diameter 10	Vacuum pressure S	With silencer	With switch																			
			Without silencer	Without switch																			
		Vacuum pressure L	With silencer	With switch																			
			Without silencer	Without switch																			
Plug-in assembly																							
Valve specifications	Ⓐ	2 position	Single solenoid																				
			Double solenoid																				
		3 position	Closed center																				
			Exhaust center																				
			Pressure center																				
	Blanking plate assembly																						
	Complete when ordering special specifications.		SUP/EXH block assembly																				
	SUP block disk																						
	EXH block disk																						
	Attachment	Individual SUP spacer assembly																					
Individual EXH spacer assembly																							
Wiring specifications		Single wiring																					
		Double wiring																					

Enter only when specifying the wiring.

- Note
- Non plug assembly: ZYY3000-NPA
 - Blanking plate assembly: SX3000-75-A
 - SUP block disk: SX3000-77-1A
 - EXH block disk: SX3000-77-1A (2 pcs / 1 location)
 - Individual SUP spacer assembly: SY3000-38-3A
 - Individual EXH spacer assembly: SY3000-39-3A
 - SUP/EXH block assembly (Standard): SX3000-51-2A
 - SUP/EXH block assembly (for R): SX3000-51-6A
 - SUP/EXH block assembly (for S): SX3000-51-7A
 - SUP/EXH block assembly (for RS): SX3000-51-8A

Enter the ordering number in the table.

The following columns shall be filled in by SMC.

Part no.	Qty.	Part no.	Qty.	Order no.
				Person in charge (Code no.)
				Section code
				Note) Mounting SUP/EXH block assembly When the location is non-standard, indicate both SUP/EXH block assembly part no., quantity and manifold part number.

- ZX
- ZR
- ZM
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF
- ZP
- ZCU
- AMJ
- Misc.