ADVENT
ELECTRIC, INCORPORATED
"THE ESSENCE OF BUSINESS IS CUSTOMERS"

SMC "SY series" Highlights

Advent Electric, Inc.

New Product Showcase

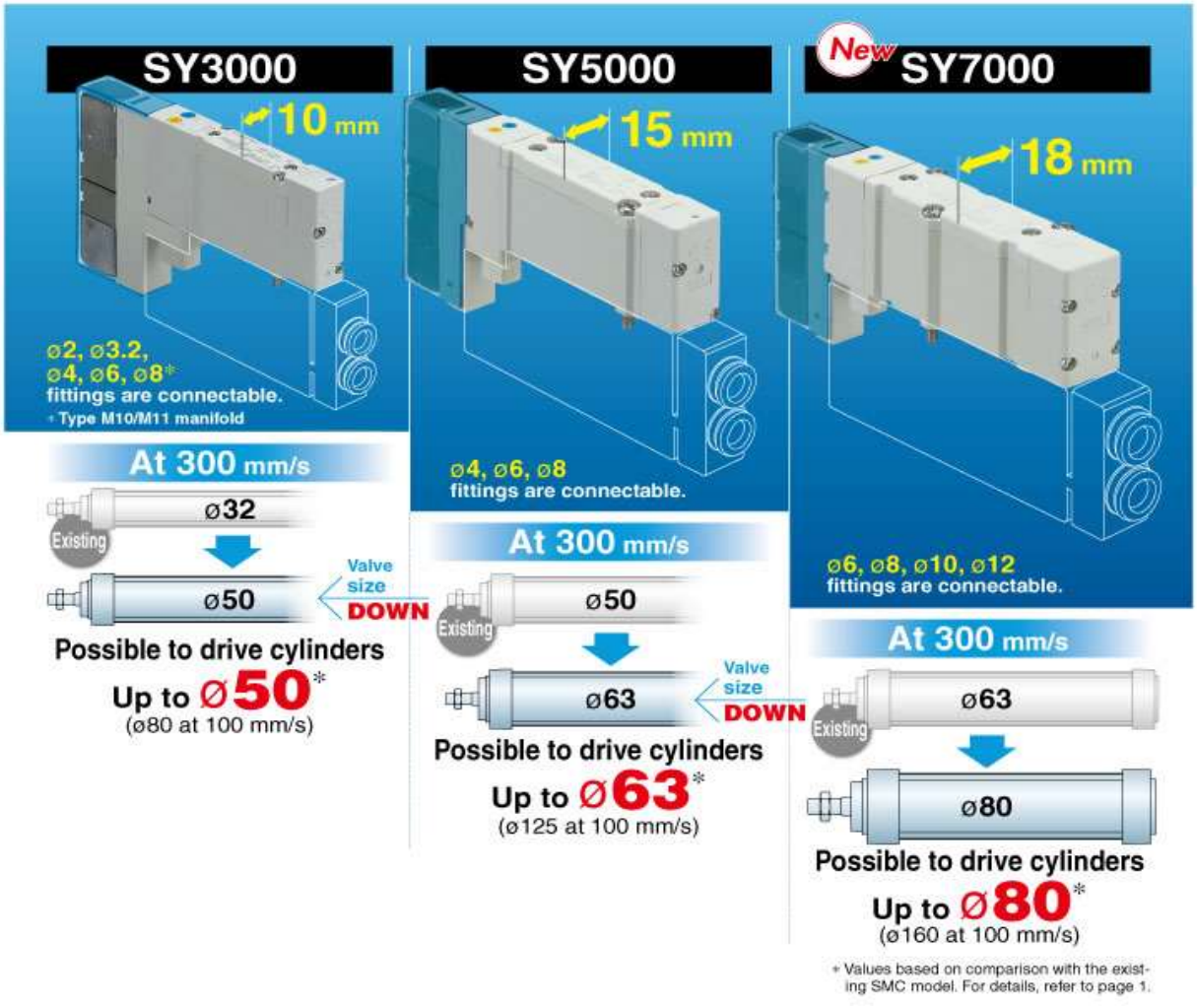
11/6/2014

Pilot Operated 4/5 Port Solenoid Valves

5 Port Solenoid Valve Plug-in Type SY

- Thanks to the flow increase, valve size can be reduced!
- Saves energy and space.
- Power consumption: 0.1 w (With power saving circuit) / 0.35 w
- Service life: 200 M cycles (Metal seal) / 70 M cycles (Rubber seal)
- Plug-in sub-plate newly added!
- Plug-in metal base (IP40)/
- Plug-in connector connecting base (IP67)
- Manifold type No.: SS5Y3, SS5Y5, SS5Y7

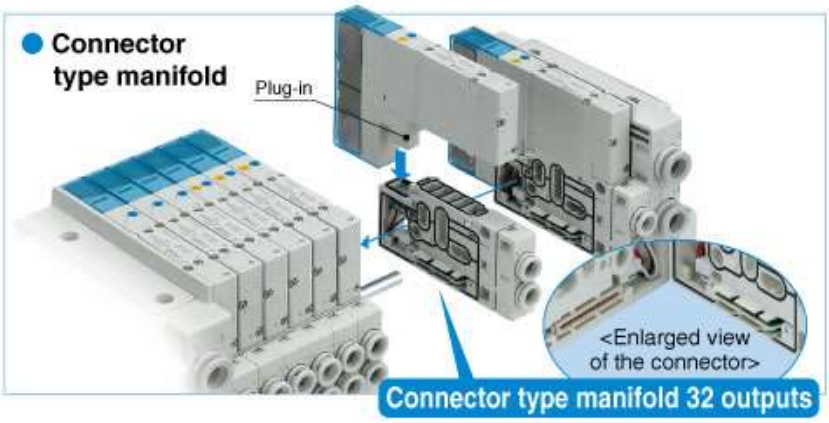
Series	Flow characteristics 4/2→5/3(A/B→EA/EB) C[dm3/(s•bar)]	Flow characteristics 4/2→5/3(A/B→EA/EB) b	Applicable cylinder size	Power consumption (W)
SY3000	1.6	0.19	ϕ50	0.35(Standard) 0.1(With power saving circuit)
SY5000	3.6	0.17	ϕ63	0.35(Standard) 0.1(With power saving circuit)
SY7000	5.9	0.20	ϕ80	0.35(Standard) 0.1(With power saving circuit)



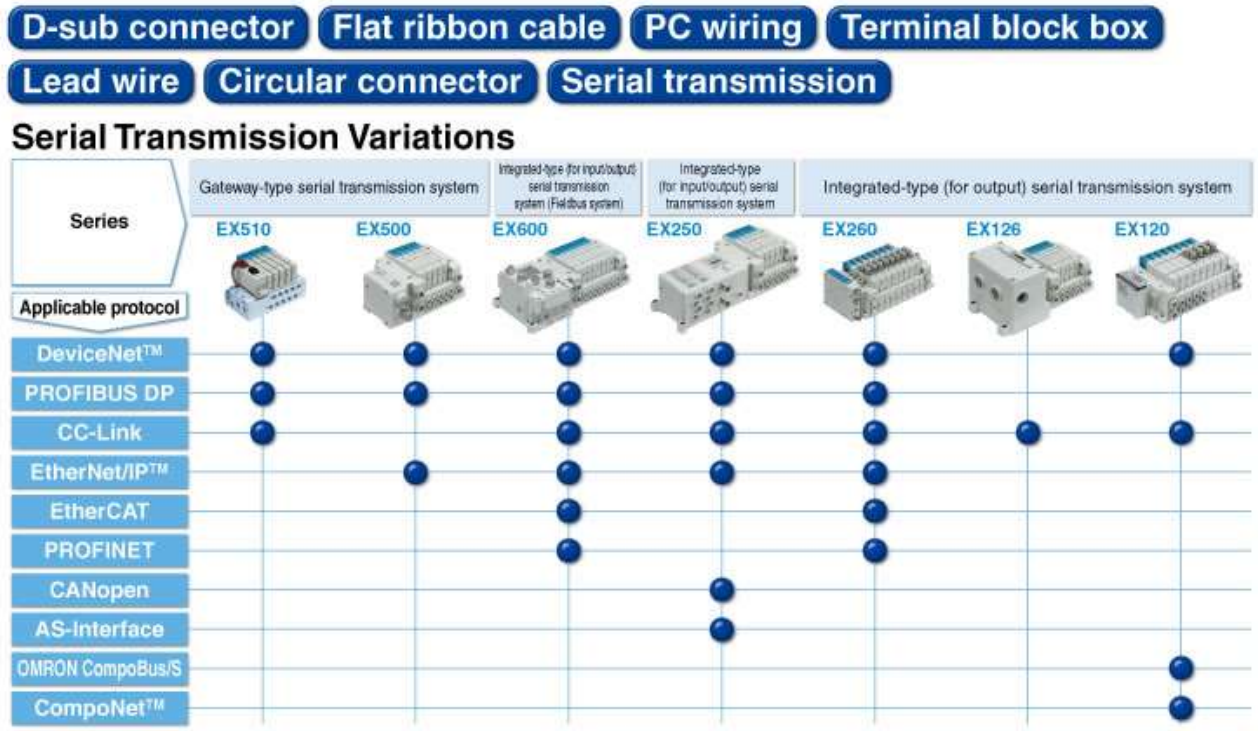
Manifold variations

Plug-in Metal Base [IP40]

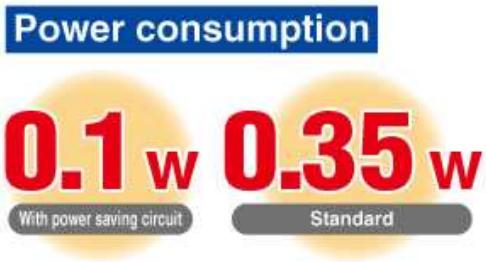
Plug-in Connector Connecting Base [IP67]

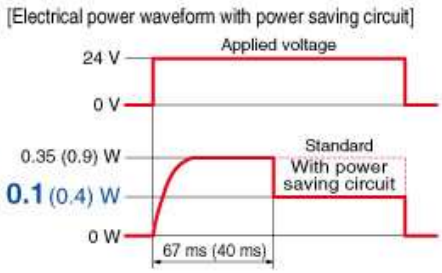


Wiring



Power saving





Power consumption is reduced by power saving circuit.

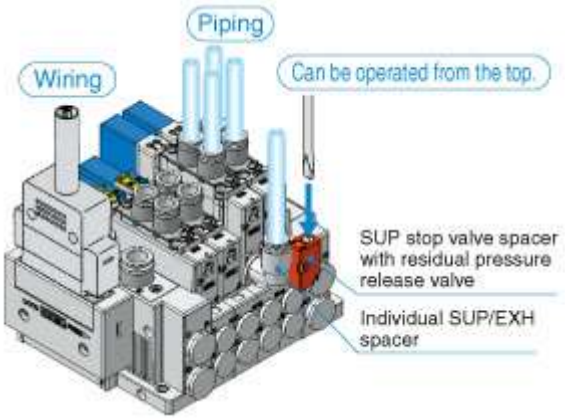
Power consumption is decreased by approx. 1/3 by reducing the wattage required to hold the valve in an energized state. (Effective energizing time is over 67 ms at 24 VDC.) Refer to the electrical power waveform as shown on the left.

The value in ( ) are for the quick response and high pressure types.

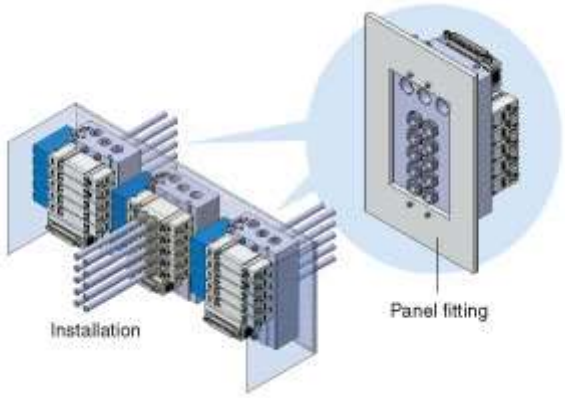
Space saving/Improved operability

Wiring, piping and operation are integrated on one side.

Multiple layer type is available as an option.
This saves space in the lateral direction.



Bottom porting available. Space saving



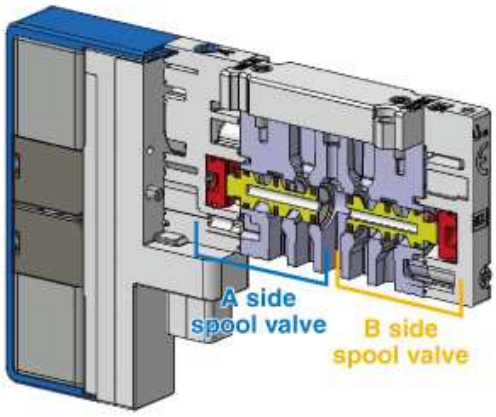
Top or bottom ported reduces the footprint.

Cleaner tubing installation

4-position dual 3-port valve available

(Only rubber seal type)

Two 3-port valves built into one body

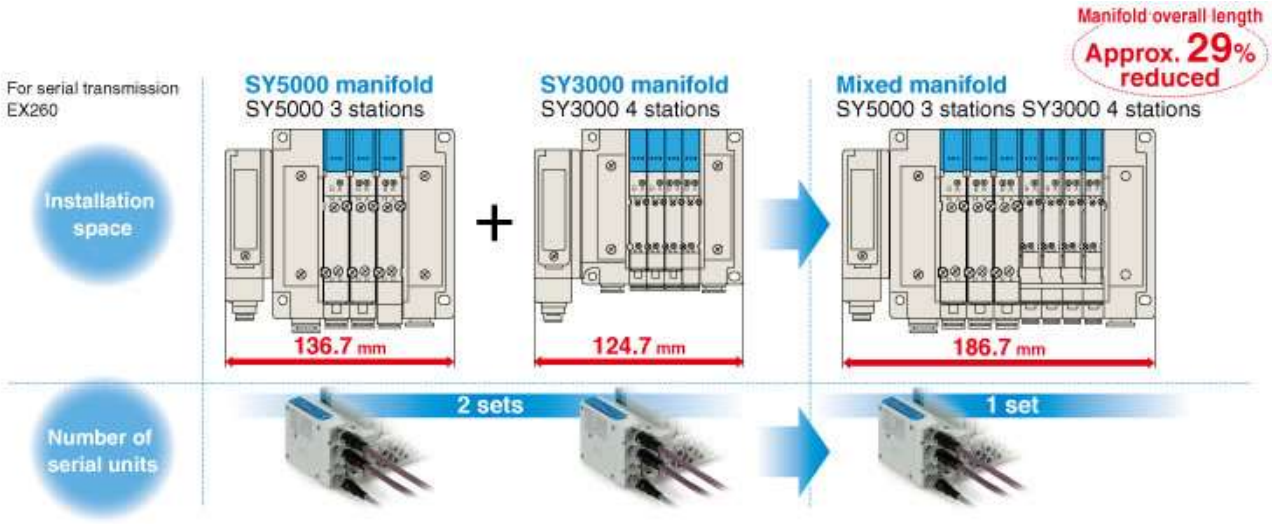


- 3-port valves on the A and B sides can operate independently.
- When used as a 3-port valve, only half the number of stations is required.
- Can also be used as a 4-position, 5-port valve.
- 4-position dual 3-port valve with back pressure check valve is available.
- Combination examples

Series	A side	B side
SY□$A^0_3$0	N.C. valve	N.C. valve
SY□$B^0_3$0	N.O. valve	N.O. valve
SY□$C^0_3$0	N.C. valve	N.O. valve

Different sizes (SY3000/5000 or SY5000/7000) can be mixed!

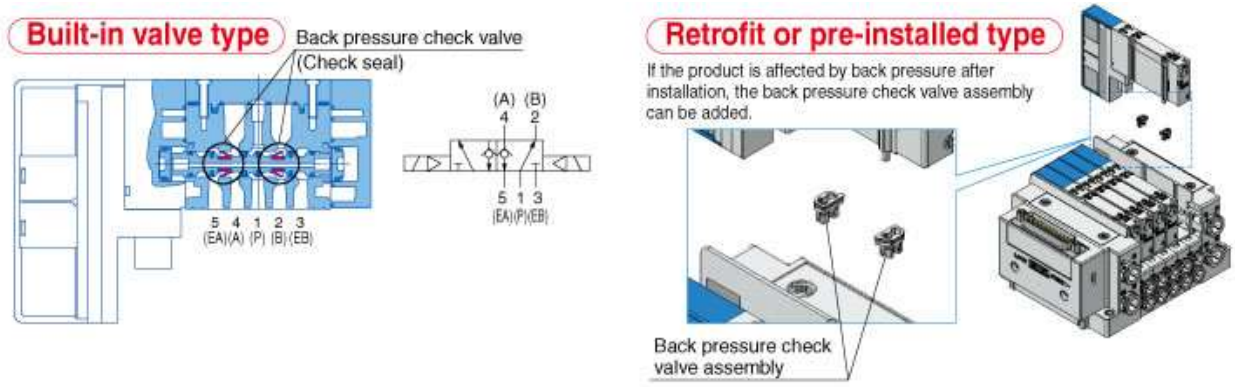
Possible to reduce installation space, the number of serial units and wirings.



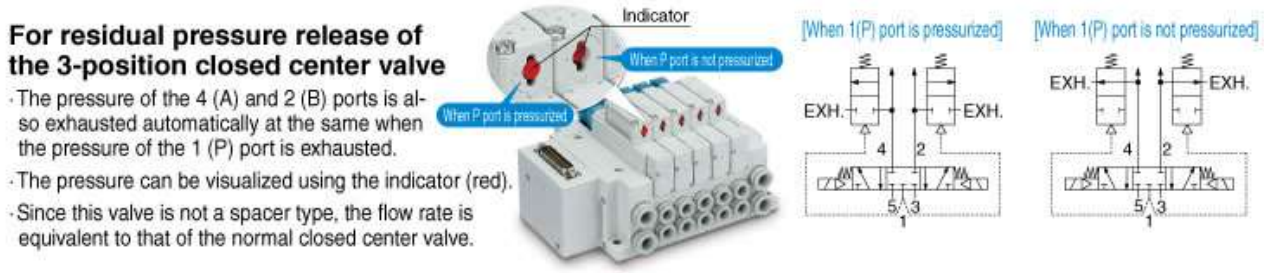
Improved safety

Back pressure check valve

This prevents actuator and air operated valve malfunctions caused by the exhaust from other valves.



With residual pressure release valve (Only SY5000)New

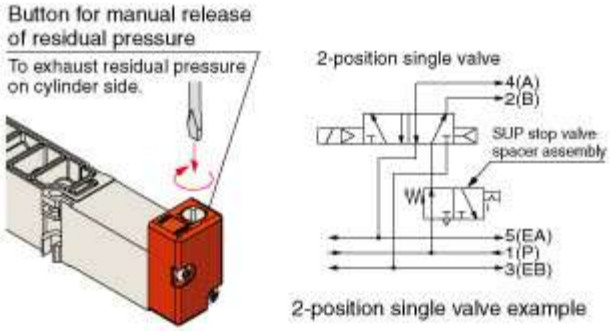


SUP stop valve spacer

(With residual pressure release valve)

Air supply to each valve can be stopped individually.

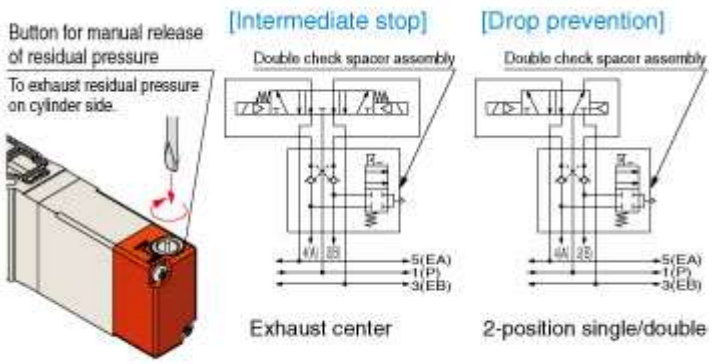
The valve and cylinder can be replaced without stopping other devices and equipment.



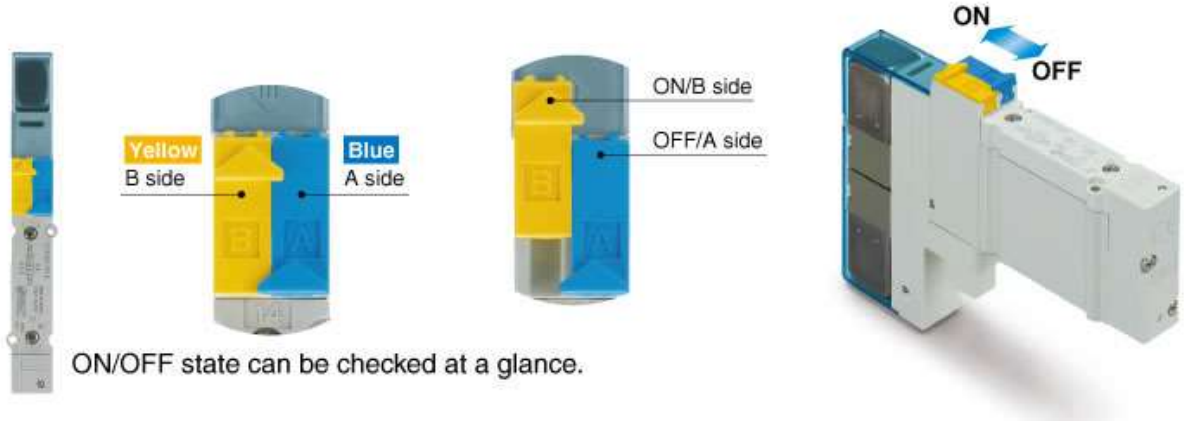
Double check spacer

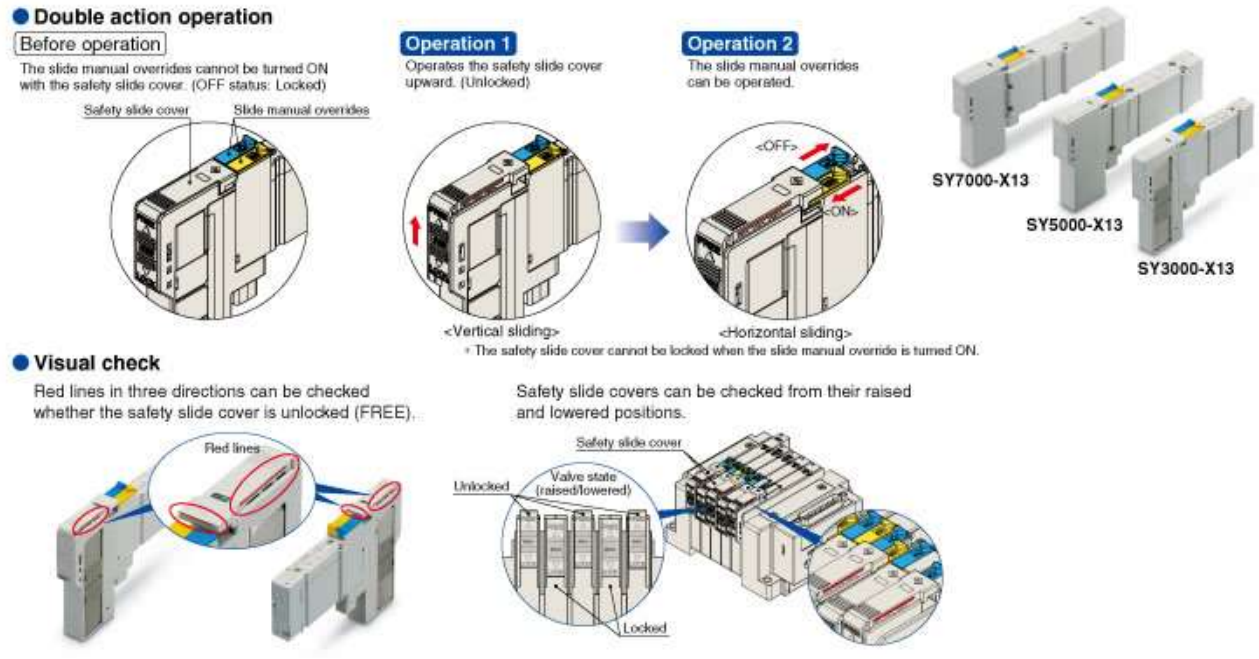
(With residual pressure release valve)

Long time of intermediate stop and position holding are possible.



With safety slide locking manual override/SY3000/5000/7000-X13 New





Piping options