

SY3000/5000/7000 Series Valve Specifications

Valve Specifications

Valve type		Rubber seal	Metal seal	
Fluid		Air		
Internal pilot operating pressure range [MPa]	2-position single	0.15 to 0.7	0.1 to 0.7 (High pressure type: 0.1 to 1)	
	2-position double	0.1 to 0.7		
	3-position	0.2 to 0.7		
	4-position dual 3-port valve	0.15 to 0.7	—	
External pilot operating pressure range [MPa]	Operating pressure range		-100 kPa to 0.7 (High pressure type: -100 kPa to 1)	
	Pilot pressure range	2-position single		0.25 to 0.7
		2-position double		
		3-position		
4-position dual 3-port valve		Operating pressure + 0.1 or more (Min. 0.25) to 0.7	—	
Ambient and fluid temperature [°C]		-10 to 50 (No freezing)		
Max. operating frequency [Hz]	SY3000 SY5000	2-position single/double	5	20 ^{*1}
		4-position dual 3-port valve		
	SY7000	3-position	3	10 ^{*1}
		2-position single/double	5	10 ^{*1}
		4-position dual 3-port valve	3	—
		3-position	3	10 ^{*1}
Manual override		Non-locking push type		
		Push-turn locking slotted type		
		Push-turn locking lever type		
		Slide locking type		
Pilot exhaust type	Internal pilot	Main/Pilot valve common exhaust	Main/Pilot valve individual exhaust	
	External pilot	Pilot valve individual exhaust		
Lubrication		Not required		
Mounting orientation^{*2}		Unrestricted	Single: Unrestricted Double/3-position: Main valve is horizontal.	
Impact/Vibration resistance^{*2} [m/s²]		150/30		
Enclosure		IP67 (Based on IEC60529) ^{*3}		
Coil rated voltage [DC]		24, 12 V		
Allowable voltage fluctuation [V]		±10% of rated voltage ^{*4}		
Power consumption [W]	Standard	0.35 (With indicator light: 0.4)		
	High pressure type, Quick response type	0.9 (With indicator light: 0.95)		
	With power saving circuit	Standard: 0.1 ^{*5} (With indicator light only) [Inrush 0.4, Holding 0.1], High pressure type: 0.4 ^{*5} (With indicator light only) [Inrush 0.95, Holding 0.4]		
Surge voltage suppressor		Diode (Varistor for non-polar type)		
Indicator light		LED		

*1: Use below 5 Hz with the power saving circuit.

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

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

Refer to page 394 for the fixation of DIN rail mounting type manifold.

*3: In the case of a metal seal, there are restrictions in the operating environment. Refer to the Specific Product Precautions (page 389).

*4: Due to voltage drops by the internal circuit in S/Z type and T type (with power saving circuit), use within the allowable voltage fluctuation as follows.

S/Z type $\begin{cases} 24 \text{ VDC: } -7\% \text{ to } +10\% \\ 12 \text{ VDC: } -4\% \text{ to } +10\% \end{cases}$ T type $\begin{cases} 24 \text{ VDC: } -8\% \text{ to } +10\% \\ 12 \text{ VDC: } -6\% \text{ to } +10\% \end{cases}$

*5: For details, refer to page 391.