



SE Series Lower Power Solenoid Valve

40 to 60 ℓ /min
10 to 16MPa

Features

① Low current, low power
The SE series magnetic switching valve's solenoid has significantly lower power consumption.

② Directly drivable by a programmable controller
Low-current operation means not only allows direct drive by a programmable controller (PC) output circuit, it also enables the use of a compact and simple control circuit.

③ Little coil temperature rise
Low power operation means there is little heat generated from the coil, which minimizes the effects of heat on mechanisms. Even with the AC solenoid, there is little chance of coil burnout.

④ With M12-4 pin connector (option)
Makes it easier to interface with open networks like Device Net. This connector streamlines wiring work. The diode

for preventing current back surge is built in to the terminal box to protect the slave unit connection. (With M12-4 pin connector)

⑤ Global compliance (G01 size)
Meets overseas safety standards TÜV (CE marking). Can be used safely around the world.

Specifications

Operation Symbol	JIS Symbol	SE-G01-**-*(G)R-**-40		SE-G03-**-GR-**-*(J) 30	
		Rated Flow Rate - Maximum Flow Rate ℓ /min	Maximum Working Pressure MPa(kgf/cm ²)	Rated Flow Rate - Maximum Flow Rate ℓ /min	Maximum Working Pressure MPa(kgf/cm ²)
A2X		30	16 {163}	40	10 {102}
A3X		40		50	
H3X		40		—	
E3X		40		50	
C4		30		60	
C5		40		60	
C6		40	60		

Note) The maximum flow rate of each valve depends on the pressure. For details, see page E-29.

● Handling

- In order to realize the full benefits of the solenoid valve, configure piping so oil is constantly supplied to the T(DR) port.
- Ensure that surge pressure in excess of the maximum allowable back pressure can be

accidentally at the T port.

- Note that the maximum flow rate is limited when used as a four-way valve, or by blocking ports for use as a two-way valve or one-way valve.

● Solenoid Assembly Specifications

Solenoid Type	Power Supply Type	Voltage (V)	Frequency (Hz)	For SE-G01				For SE-G03			
				Solenoid Coil Type	Holding Current (A)	Holding Power (W)	Allowable Voltage Range (V)	Solenoid Coil Type	Holding Current (A)	Holding Power (W)	Allowable Voltage Range (V)
Built-in rectifier type AC	E1	AC100	50	EED64-E1	0.08	7.0	80 to 120	SLH1-03BR1-01	0.06	5.8	80 to 120
			60								
		AC110	60								
DC	D2	DC24	—	EED64-D2	0.2	4.8	21.6 to 26.4	SLH1-03BD2-01	0.2	4.8	21.6 to 26.4

- Always keep the operating fluid clean. Allowable contamination is class NAS12 or less.
- When using petroleum type operating fluid, use JIS K 2213 Class 1 or Class 2, or equivalent.
- Be sure to note the allowable pressure range of the coil being used.
- Maintaining a switching position under high pressure for a long period can cause abnormal operation due to hydraulic lockup. Contact your agent when you need to maintain a switching position for a long period.
- When using a detent type (E3X), provide constant energization when secure maintenance of the switching position is required.
- Note that manual pin operating pressure changes in accordance with tank line back pressure.
- If you do not select the option with the M12-4 pin connector, current back surge may occur because there is no solenoid in the central terminal box. Therefore, install solenoid valves to protect against current back surge on both ends of the coil in the output circuit of the programmable controller (PC) if directly operating the solenoid valves.

Solenoid Type		SE-G01		SE-G03		
		DC Solenoid	Internal DC solenoid for rectifier	DC Solenoid	Internal DC solenoid for rectifier	
		D2	E1	D2	E1	
Maximum Working Pressure	P, A, B Ports	16MPa {163kgf/cm ² }		10MPa {102kgf/cm ² }		
Maximum Allowable Backpressure	T port	16MPa {163kgf/cm ² }		10MPa {102kgf/cm ² } (In the case of 2MPa {21kgf/cm ² } operation symbol E3X)		
Changeover Frequency (per minute)		120		120		
Standard	Indicator light Surgeless	GR	R	GR		
Weight (kg)	Double Solenoid	2.2		3.5		
	Single Solenoid	1.7		3.3		
Operating Environment	Dust Resistance/Water Resistance Rank	JIS C0920 IP64 (Dust-tight, Splash proof)		JIS C0920 IP65 (Dust-tight, Waterjet-proof)		
	Ambient Temperature	-20 to 50°C		-10 to 50°C		
	Operating Fluid	Temperature Range	-20 to 70°C		0 to 65°C	
		Viscosity Range	15 to 300mm ² /s			
	Filtration	25 microns or less				
Bundled Accessories	Mounting bolt	M5 x 45 (Four)		M6 x 40 (Four) (M8 x 40 (Four))		
	Tightening Torque	5 to 7N·m {51 to 71kgf·cm}		M6 10 to 13N·m {102 to 133kgf·cm} M8 18 to 21N·m {184 to 214kgf·cm}		

Note) For mounting bolts, use 12T or equivalent.

Understanding Model Numbers

SE - G 03 - A 3 X - GR - C2 - J20

