

Proportional solenoid valve

A2-6500 Series

- NC
- Working fluid: Compressed air
- Port size: Rc1/8

Custom order product

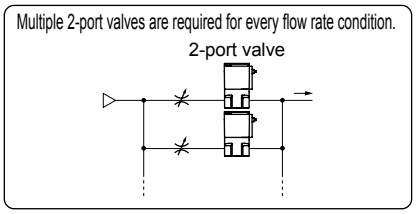
RoHS

Step-less control of the flow rate in proportion to the current.

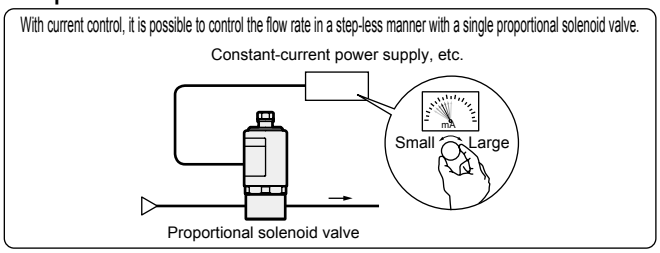
Thanks to step-less control of the flow rate with current control, fine flow rate control, such as “multiple-step flow rate control” and “optimal flow rate control”, which was difficult with conventional solenoid valves has been made possible. Proportional control contributes to “energy conservation of devices” and “elimination of waste”.

Applications

Conventional (2-port valve)



Proportional solenoid valve



Specifications

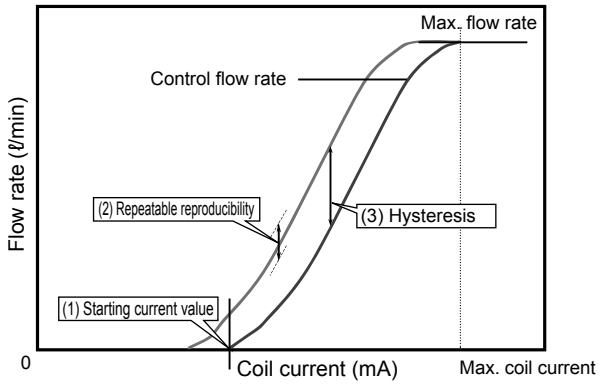
1 MPa = 10 bar

Standard specifications	Working fluid	Compressed air		
	Fluid temperature °C	0 (32°F) to 50 (122°F)		
	Ambient temperature °C	0 (32°F) to 50 (122°F)		
	Actuation	NC		
	Mounting orientation	Limited to vertical mounting with the coil on top.		
	When valve is closed (current value: 0) Valve seat leakage cm^3/min	1 or less		
	Port size	Rc1/8		
Characteristic specifications	**Model No.**	**A2-6501**	**A2-6502**	**A2-6503**
	Orifice size mm	1.6	2.3	3.2
	Max. working pressure differential MPa	0.7 (≈100 psi)	0.35 (≈51 psi)	0.15 (≈22 psi, 1.5 bar)
	Min. working pressure differential MPa	0.2 (≈29 psi)	0.1 (≈15 psi)	0.05 (≈7.3 psi, 0.5 bar)
	Max. working pressure MPa	0.7 (≈100 psi)	0.35 (≈51 psi)	0.15 (≈22 psi, 1.5 bar)
	Control flow rate ℓ/min (under max. working pressure differential)	0 to 100		0 to 80
	Hysteresis (under max. working pressure differential)	10% F.S. or less		13% F.S. or less
	Starting current value (under max. working pressure differential)	50% or less (12 VDC: 165 mA or less, 24 VDC: 82.5 mA or less)		65% or less (12 VDC: 214 mA or less, 24 VDC: 107 mA or less)
	Repeatable reproducibility	3% F.S. or less		
Coil specs	Used power supply voltage	12 VDC, 24 VDC		
	Coil current mA	0 to 330(12 VDC), 0 to 165(24 VDC)		
	Power consumption W	0 to 4		

- Body material: Copper alloy
- Sealant material: FKM
- Valve closed with power supply OFF (current value: 0)
- Valve seat leakage when valve is closed: 1 cm^3/min or less

Details of the various values of the specifications

Flow characteristics



(1) Starting current value
Upon increasing the coil current from a state where the flow rate is 0, the current value of when the fluid starts to flow.
(Indicated as a percentage of the max. coil current.)

(2) Repeatable reproducibility
The variance of flow rates which are output when applying identical currents.
(Indicated as a percentage of the max. flow rate.)

(3) Hysteresis
The max. flow rate difference with an identical current value when increasing and decreasing the current.
(Indicated as a percentage of the max. flow rate.)