

AUTOMATION SOLENOID VALVE

General Description

The AVCO automation solenoid valve mounts directly to the actuator eliminating the need for tubing and fittings, they are available as double acting and can be easily converted from 4 way to 3 way operation. The valves have bi-directional tapered Tee seals to eliminate sticking problems and have been tested according to SAE specifications. Solenoid options are weatherproof, intrinsically-safe and explosion proof.



Valve Operation 3/2 NC - 3 way 2 position normally closed valves shift and apply pressure when a maintained signal is applied to the operator then reset and block pressure when the signal is removed. 2 3 De-energized Eneraized 5/2 SINGLE - 4 way 2 position single operator valves shift, apply pressure from port 1 to 4 and exhaust pressure from port 2 to 3 when a maintained signal is applied to operator 1-4. Valves reset, apply pressure from port 1 to 2 and exhaust 3 pressure from port 4 to 5 when the signal is removed. De-energized Energized 5/2 DOUBLE - 4 way 2 position double operator valves shift, apply pressure from port 1 to 4 and exhaust pressure from port 2 to 3 when a momentary signal 5 is applied to operator 1-4. Valves shift, apply pressure 3 from port 1 to 2 and exhaust pressure from port 4 to 5 when a momentary signal is applied to operator 1-2. removed. Energized De-energized

Filtration and Lubrication

Media - Air or Inert Gas

Lubrication is not required but recommended for maximum service life. Oils should be compatible with seal material, have an ISO 32 viscosity and an aniline range of $180^\circ F$ and $210^\circ F.$

Filter to 50 microns or better.

Air must be dry below 40°F.

Operating Temperatures			
	Treated BUNA-N Seals	Fluoroelastomer Seals	
Standard	0°F to +125°F	0°F to +125°F	
High Temp. Coil	0°F to +180°F	0°F to +180°F	

Operating Pressures			
	Inlet Port	External Pilot Port	
Standard 2 Pos.	35 to 150 PSIG	Not required	
External Pilot	Vacuum to 35 PSIG	35 to 150 PSIG	

AVCO can supply many combinations in addition to those listed and will be happy to discuss specific requirements.



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Alloy Valves and Control

Electrical Information				
i i i i i i i i i i i i i i i i i i i	NEMA 4X with DIN 43650 Connection		NEMA 4X 1/2" Conduit with 30" Leads	
e e e e e e e e e e e e e e e e e e e	Explosion Proof 1/2" Conduit with 24" Leads CSA 202633X FM Approved CL. I; ZONE1Ex m II T4; AEx m II CL. I; Div. 1; GR. A, B, C, D CL. II; GR. E, F, G CL. III T4 Ta = -200C to +600C NEMA: 4, 4X, 7C, 7D		Intrinsically Safe with Strain Relief EEx ia IICT6 CL. I; Div. 1; GR. A, B, C, D CL. II; GR. E, F, G CL. III; Div. 1 Hazardous Location	

Weatherproof	110/120 VAC	220/240 VAC	12 VDC	24 VDC
Inrush Amps	.08	.04	.40	.20
Holding Amps	.06	.03	.40	.20
Resistance (Ohms)	840	3400	31	121
Power (AC=VA, DC= Watts)	4.8	6.0	4.8	4.8
Explosion Proof				
Inrush Amps	.096	.048		
Holding Amps	.054	.027	.375	.187
Resistance (Ohms)	530	2345	32	128
Power (AC=VA, DC= Watts)	6.5	6.5	7	
Intrinsically Safe				
Inrush Amps				.03
Holding Amps				.03
Resistance (Ohms)				275
Power (AC=VA, DC= Watts)				2.1

SV	4	120A	со	DC
Solenoid	Enclosure	Voltage	Connection	Options
SV	4 - Weather Proof	120A - 120VAC	CO - 1/2" Conduit	DC - Dual Coil
	7 - Explosion Proof	220A - 220VAC	DN - DIN 43650	HT - High Temperature
	9 - Intrinsically Safe	12D - 12VDC		
		24D - 24VDC		

Note: Intrinsically safe solenoid is 24VDC only and includes coil and connector

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