

6APSV Proportionating Electromagnetic Valves are designed to respond to variable power inputs to regulate the flow of liquids and gases proportionately.

For added safety valves are normally closed (NC) when deenergized. They can also serve as "ON-OFF" valves. For control functions see the Driver Module.

PROPORTIONATING ELECTROMAGNETIC VALVES

MODEL	MATERIAL	*MAXIMUM FLOW RATE (mL/min)		ORIFICE SIZE		CV
		AIR	WATER	[in]	[mm]	
6APSV0101	Stainless Steel	3500	125	0.02	0.51	0.009
6APSV0102		13000	400	0.04	1.02	0.033
6APSV0103		21500	700	0.055	1.4	0.055
6APSV0104		25000	850	0.063	1.6	0.068
6APSV0105		100000	2850	0.125	3.18	0.24
6APSD0101	Proportionating Solenoid Valve Driver					

MODEL	DESCRIPTION
6APSSDNA-24	Power Supply, 110 vac/24 Vdc (North America)
6APSSDEU-24	Power Supply, 230 vac/24 Vdc (Europe)
6APSSDAU-24	Power Supply, 240 vac/24 Vdc (Australia)
6APSSDUK-24	Power Supply, 240 vac/24 Vdc (United Kingdom)
6ACBLDP9-6	Female 9 Pin D Connector 6 foot cable

SPECIFICATIONS FOR PROPORTIONATING ELECTROMAGNETIC VALVES

POWER INPUT: 0-30 Vdc.
MAXIMUM POWER REQUIRED: 400 mA.
TYPE OF OPERATION: Normally closed (NC) when de-energized.
CONNECTIONS: 1/4" Compression fittings optional 3/8" (1/8" with 6ASV0101, 6ASV0102 or 6ASV0103). (including compression fittings) x 1.00" (25.4mm) deep.
MATERIALS IN FLUID CONTACT: Types 316 and 416 stainless steel, FKM O-rings. Optional O-rings: Buna®, EPR and FFKM.
MAXIMUM PRESSURE: 1000 psig (6897 kPa).
MAX. DIFFERENTIAL PRESSURE: 50 psid (345 kPa).
LEAK INTEGRITY: 1 X 10⁻⁹ mL/sec Helium individually tested.
FLUID TEMPERATURE: 14 °F to 122 °F (-10 °C to 50 °C).
MAXIMUM TEMPERATURE (typical): 174 °F (79 °C) inside, 130 °F (54 °C) outside surface at 24Vdc.



The selection of materials of construction, is the responsibility of the customer. The company accepts no liability.

SPECIFICATIONS FOR 6APSD0101 PSV DRIVER MODULE

CONNECTION: 9-pin male "D" subconnector for input/output signals.
POWER INPUT REQUIRED: +12 to 30 Vdc 1A @ 12 Vdc, 0.5A (not supplied) @ 24 Vdc via 9-pin "D"-connector or DC power jack (center positive).
INPUT SIGNAL: Auto-Select feature allows circuit to recognize which analog input reference (0 to 5 Vdc or 4-20 mA) signal is provided.
TTL ON/OFF: Jumper selectable LOW (0 Vdc) OFF-HIGH (5 Vdc) on, or reverse, to select valve ON/OFF status.
VALVE OUTPUT POWER: Jumper selectable to +15, +22, and +29 Vdc with adjacent potentiometer to obtain ±2 Vdc.
FUSE RATING: An internal resettable 1.6A fuse protects the electronics on the power input.
POLARITY PROTECTION: Internal rectifier circuit protects from reversed polarity on the power input.
OPERATING TEMPERATURE: 32 °F (0 °C) to 122 °F (50 °C).
DIMENSIONS: 3" (7.62mm) wide x 3" (7.62mm) deep x 1" (25.4mm) high.
CE COMPLIANCE: EMC Directive 89/336/EEC EN55011:1991 Group 1, Class A EN50082-2:1995.



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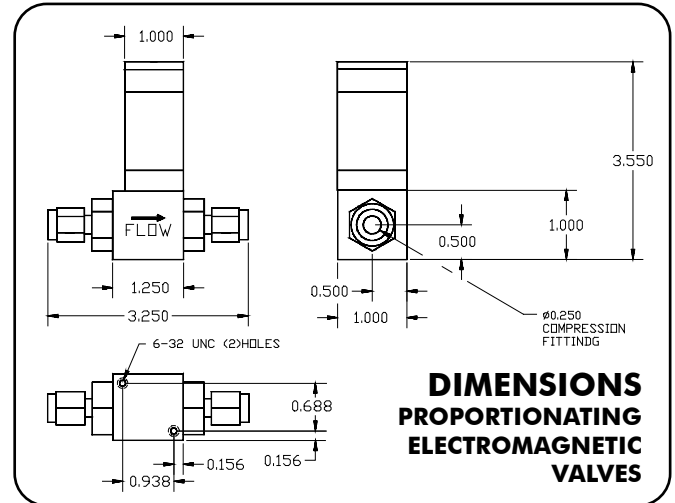
- ✓ Leak Integrity 1 x 10⁻⁹ sec.
- ✓ Rigid metallic construction.
- ✓ Gas and liquids.
- ✓ Max pressure of 1000 psig (68.9 bars).

Flow is controlled by increasing or decreasing the voltage applied to the coil. This causes a magnetic force which raises the core and allows gas to flow.

Valves, constructed of stainless steel are available in five different sizes covering flow ranges from 3.5 sL/min - 100 sL/min air and 125 mL/min - 2.85 L/min H₂O.

PRINCIPLE OF OPERATION

A variable stroke electromagnetic valve featuring a valve seat design which permits increasing or decreasing flow rates of liquids or gases through it in proportion to variable input power.



DIMENSIONS PROPORTIONATING ELECTROMAGNETIC VALVES

REGULATOR SYSTEMS

Complete flow regulating systems includes an electromagnetic valve connected to a pulse width modulated Driver Module.

For details see Driver Module description. Optional external RS-232 or RS-485 modules are available.

6APSD0101 Pulse Width Modulated Driver Module

Pulse width modulated 6APSD0101 Driver Modules regulate the power supplied to PSV Regulating valves based on a reference signal.

Set-point signals, 0-5 Vdc or 4-20 mA, input are employed to control the output pulse width modulated voltage at a fixed frequency (≥30KHz) and amplitude. Incoming power to the valve coil is applied and discontinued for predetermined periods of time by a low loss solid state switching element.

The wide range of power input features conveniently accommodates 12 to 32 Vdc sources.

The Auto-Select feature of the Driver Module recognizes the type of reference signal received and defaults to 0 - 5 Vdc if both signals are provided.