

INDIRECT-ACTING SOLENOID VALVES

INTRODUCTION

Indirect-Acting Solenoid Valves utilize a small Humphrey Direct-Acting Solenoid Valve to pneumatically operate a larger Air-Pilot Valve, thus achieving high-flow capacity in smaller overall sizes and low power consumption. Indirect-Acting Solenoid Valves are the popular choice for operating pneumatic cylinders and actuators where the pneumatic pressures are typically set to 30-100 PSIG. High internal shifting forces can be achieved resulting in reliable operation and long, trouble-free service.

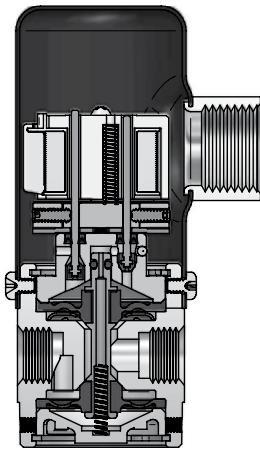
INDIRECT-ACTING SOLENOID VALVES are essentially two pneumatic valves in one package. Their advantages over Direct-Acting Valves are:

- Greater shifting forces.
- Smaller overall size, relative to flow.
- Lower power consumption, relative to flow and size.
- Greater variety. 2-, 3- or 4-way; 2- or 3-position.
- Several valve manifold variations available, when many cylinders and actuators need to be operated.

Available in sub-miniature M3x0.5 porting through large 3/4 PIPE in 2-, 3- and 4-way models, they are the ideal choice for factory automation applications.

SQUARE TYPE: Features a low friction, lip-seal, spool design offered as inline or manifold mount. Square types are a compact, modern design with power consumptions as low as 0.1 Watt and flow capacities as great as 1.0 Cv. The line up includes single or double solenoid, 2- or 3-position valves.

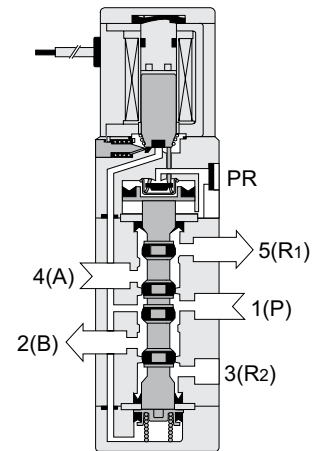
ROUND TYPE: Features the classic Humphrey diaphragm-poppet valve principle known for its reliability in clean, lubrication free environments, as well as a workhorse in poor air quality conditions.



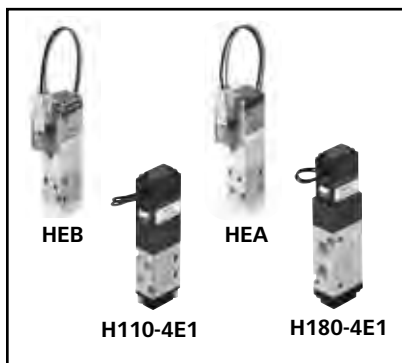
250E1 Series
Round Type, Unactuated

INDIRECT-ACTING SOLENOID VALVE FEATURES:

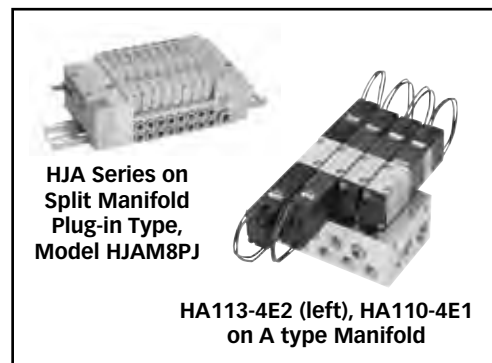
- Compact Size.
- Low power consumption.
- High flow.
- No lubrication required.
- 2- or 3-position.
- Variety of options.



H180-4E1 Series
Square Type, Unactuated



Square Type Valve Offering



Square Type Valve Offering
Manifolds



Round Type Valve Offering

INDIRECT-ACTING SOLENOID VALVES

250 Valves

250E1, 250AE1, 250E2, 250AE2

The classic Humphrey diaphragm poppet, 1/4 PIPE port solenoid valve 250 series, is a workhorse, whether the media and ambient conditions are clean or harsh. The pressure unbalanced diaphragm-poppet design has no metal-to-metal contact or sliding seals, thus millions of trouble-free cycling are expected, whether air is dirty, lubricated or not.

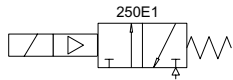
Available as 2- or 3-way models, normally open or normally closed, single or double solenoid.

Base Models

- 3-Way, Single Solenoid, Inline (250E1)
- 3-Way, Single Solenoid, External Pilot, Inline (250AE1)
- 3-Way, Double Solenoid, Inline (250E2)
- 3-Way, Double Solenoid, External Pilot, Inline (250AE2)

Features and Benefits

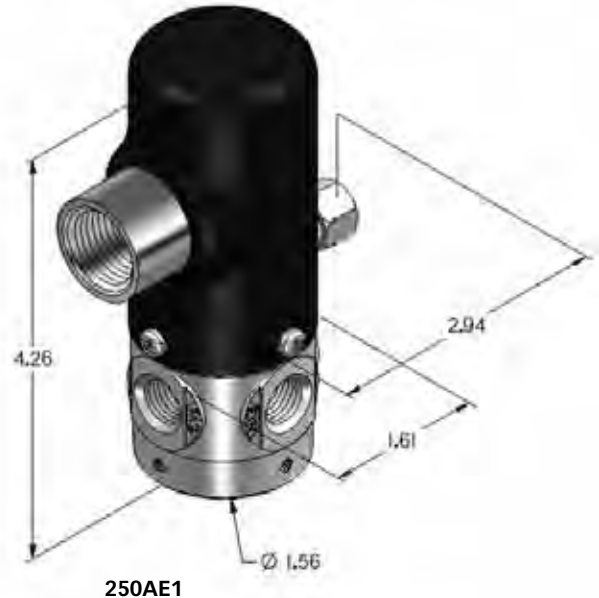
- Low leak rate.
- Full ported 1/4" orifice, 1/4 PIPE ports.
- Impervious to air quality, lubricated or not lubricated.
- Quiet operation. No AC hum.
- Short stroke and quick exhaust permits fast cycling.
- Class B-rated, Continuous-Duty coils.
- Electrical connections include grommet cover, conduit or DIN type connector.
- For low pressure or alternate media, select external piloted "AE" type.
- Optional brass body available.
- Design characteristics translate to excellent vacuum valve, see Vacuum, p. 78.



250E1



250AE1



250AE1

SPECIFICATIONS

Design Principle:	Pressure Unbalanced – Air Return, Spring Assist
Porting Type:	2- or 3-Way
Port Size:	1/4 PIPE
Media:	Air, Inert Gas, Liquid (brass body including AE1 and AE2)
Pressure Range:	30–125 PSIG; AE 0–125 PSIG
Temperature Range:	0°F to 125°F
Flow @100 PSIG:	50 CFM, 1415 LPM (Cv=0.8)
Power:	6.7/8.2 W
Available Voltages:	12 VDC, 24VDC, 24/50/60, 120/50/60, 240/50/60

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HOW TO OBTAIN VALVE SPECIFICATIONS

☞ Visit www.humphrey-products.com and select "Online Product Guide."

- From the search options provided, choose the valve you want and the details for that product.
- Once completed, select "Spec Sheet" to create a PDF of the valve, which you may save and print at your convenience.

HOW TO FIND A DISTRIBUTOR

☞ Visit www.humphrey-products.com, select "Find A Distributor," and input your information to locate a distributor nearest you.

- Or, call Customer Service at 1-800-477-8707 for the name and phone number of your local distributor.



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