

# EH40 SERIES

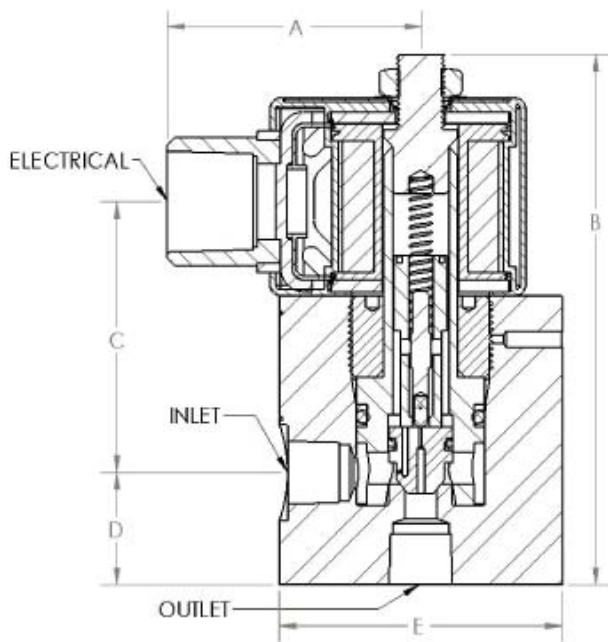
## 1/4 - 1/2" PIPE SIZE



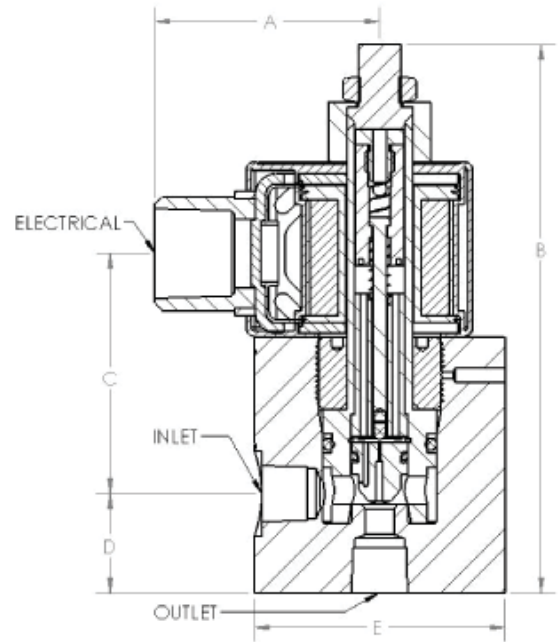
### Features:

The EH40 is a 2-way, unidirectional, full port solenoid valve that is great for a wide range of fluids and gases. This pilot operated valve can be used to control the flow of media such as high pressure air, water, natural gas, hydrogen, nitrogen, and other gases or light liquids compatible with materials of construction. Available in both 1/4" (EH40-04) and 1/2" (EH40-08) sizes, the EH40 is the workhorse of our collection and offers a cartridge design that alleviates your demanding maintenance requirements. The EH40 requires 50 PSIG minimum pressure differential between inlet and outlet for operation. The design is optimal for pressures of 50 to 10,000 PSIG. The Normally Closed DC powered EH40 valves must be mounted upright and vertical, while all other EH40 valves can be universally mounted. **Filters are recommended for all applications.**

### Dimensions



Normally Closed



Normally Open

|                         | Inlet/<br>Outlet | Electrical          | Ship<br>Weights<br>(lbs.) | Reference Dimensions (inches) |     |     |     |        |
|-------------------------|------------------|---------------------|---------------------------|-------------------------------|-----|-----|-----|--------|
|                         |                  |                     |                           | A                             | B   | C   | D   | E      |
| EH40-04 Normally Closed | 1/4" NPT         | 1/2" NPT<br>Conduit | 2.85                      | 2.0                           | 4.1 | 2.1 | 0.9 | ø 2.20 |
| EH40-04 Normally Open   |                  |                     | 3.10                      | 2.0                           | 4.8 | 2.1 | 0.9 | ø 2.20 |
| EH40-08 Normally Closed | 1/2" NPT         |                     | 6.05                      | 2.0                           | 4.7 | 2.2 | 1.3 | ø 2.95 |
| EH40-08 Normally Open   |                  |                     | 6.04                      | 2.0                           | 5.4 | 2.2 | 1.3 | ø 2.95 |
















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## 1/4 - 1/2" PIPE SIZE




### How To Order

| Base Model Number | Connection Size   | AC/DC Voltage and Hertz | Suffix Option Field (s) |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
|-------------------|---|-------------------------|-------------------------|---|------|--|--|---------|------|----------|------|----------|------|-------|------|-------|------|--------|--|----|-------------------------------------|----|---------------------------------------|----|-------------------------------------|----|---------------|----|--------------|----|-------------------------------|----|-------------------------------|----|----------------|----|---|----|--------------------------------|----|----------------------|
| EH40              | <table border="1" style="margin: auto;"> <tr><td style="width: 30px; height: 30px;"></td></tr> <tr><td style="width: 30px; height: 30px;"></td></tr> </table>   |                         |                         | <table border="1" style="margin: auto;"> <tr><td style="width: 30px; height: 30px;"></td></tr> <tr><td style="width: 30px; height: 30px;"></td></tr> </table> |      |  | <table border="1" style="margin: auto;"> <tr><td style="width: 100px; height: 30px;"></td></tr> </table> |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
|                   |   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
|                   |   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
|                   |   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
|                   |   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
|                   |   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
|                   | <table border="1" style="margin: auto;"> <tr><td style="width: 30px; height: 20px;">04</td><td style="width: 30px; height: 20px;">1/4"</td></tr> <tr><td style="width: 30px; height: 20px;">08</td><td style="width: 30px; height: 20px;">1/2"</td></tr> </table> | 04                      | 1/4"                    | 08  | 1/2" | <table border="1" style="margin: auto;"> <tr><td style="width: 30px; height: 20px;">A024</td><td style="width: 30px; height: 20px;">24 / 60</td></tr> <tr><td style="width: 30px; height: 20px;">A120</td><td style="width: 30px; height: 20px;">120 / 60</td></tr> <tr><td style="width: 30px; height: 20px;">A240</td><td style="width: 30px; height: 20px;">240 / 60</td></tr> <tr><td style="width: 30px; height: 20px;">D012</td><td style="width: 30px; height: 20px;">12 DC</td></tr> <tr><td style="width: 30px; height: 20px;">D024</td><td style="width: 30px; height: 20px;">24 DC</td></tr> <tr><td style="width: 30px; height: 20px;">D120</td><td style="width: 30px; height: 20px;">120 DC</td></tr> </table> | A024   | 24 / 60 | A120 | 120 / 60 | A240 | 240 / 60 | D012 | 12 DC | D024 | 24 DC | D120 | 120 DC | <table border="1" style="margin: auto;"> <tr><td style="width: 30px; height: 20px;">DN</td><td style="width: 60px; height: 20px;">Din Connector (Not Explosion Proof)</td></tr> <tr><td style="width: 30px; height: 20px;">GS</td><td style="width: 60px; height: 20px;">General Service (Not Explosion Proof)</td></tr> <tr><td style="width: 30px; height: 20px;">HY</td><td style="width: 60px; height: 20px;">Hydrogen Service (Helium leak test)</td></tr> <tr><td style="width: 30px; height: 20px;">NO</td><td style="width: 60px; height: 20px;">Normally Open</td></tr> <tr><td style="width: 30px; height: 20px;">OX</td><td style="width: 60px; height: 20px;">Oxygen Clean</td></tr> <tr><td style="width: 30px; height: 20px;">S4</td><td style="width: 60px; height: 20px;">SAE J1926 Size "4" Connection</td></tr> <tr><td style="width: 30px; height: 20px;">S8</td><td style="width: 60px; height: 20px;">SAE J1926 Size "8" Connection</td></tr> <tr><td style="width: 30px; height: 20px;">TC</td><td style="width: 60px; height: 20px;">Tube Connector</td></tr> <tr><td style="width: 30px; height: 20px;">VT</td><td style="width: 60px; height: 20px;">Viton O-rings (Higher temps &amp; resistance)</td></tr> <tr><td style="width: 30px; height: 20px;">XP</td><td style="width: 60px; height: 20px;">22 Watt Coil (Higher Pressure)</td></tr> <tr><td style="width: 30px; height: 20px;">T5</td><td style="width: 60px; height: 20px;">Class 5 Leakage Test</td></tr> </table> | DN | Din Connector (Not Explosion Proof) | GS | General Service (Not Explosion Proof) | HY | Hydrogen Service (Helium leak test) | NO | Normally Open | OX | Oxygen Clean | S4 | SAE J1926 Size "4" Connection | S8 | SAE J1926 Size "8" Connection | TC | Tube Connector | VT | Viton O-rings (Higher temps & resistance) | XP | 22 Watt Coil (Higher Pressure) | T5 | Class 5 Leakage Test |
| 04                | 1/4"  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| 08                | 1/2"  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| A024              | 24 / 60   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| A120              | 120 / 60  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| A240              | 240 / 60  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| D012              | 12 DC   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| D024              | 24 DC   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| D120              | 120 DC  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| DN                | Din Connector (Not Explosion Proof)   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| GS                | General Service (Not Explosion Proof)   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| HY                | Hydrogen Service (Helium leak test)   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| NO                | Normally Open   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| OX                | Oxygen Clean  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| S4                | SAE J1926 Size "4" Connection   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| S8                | SAE J1926 Size "8" Connection   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| TC                | Tube Connector  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| VT                | Viton O-rings (Higher temps & resistance)   |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| XP                | 22 Watt Coil (Higher Pressure)  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |
| T5                | Class 5 Leakage Test  |                         |                         |   |      |  |  |         |      |          |      |          |      |       |      |       |      |        |  |    |                                     |    |                                       |    |                                     |    |               |    |              |    |                               |    |                               |    |                |    |   |    |                                |    |                      |

### Possible EH40 Options & Add-Ons

|  |   |  |   |   |  |   |  |
|--|---|--|---|---|--|---|--|
| <br>72" Lead Length | <br>Din Connector   | <br>Screw Terminal           | <br>1/4 Tab (spade)       | <br>General Service | <br>Hydrogen Service | <br>Normally Open | <br>Oxygen Clean |
| <br>SAE Port       | <br>Tube Connector | <br>Class V Leakage Testing | <br>Stainless Steel Tags | <br>Viton O-Rings  | <br>22 W Coil       | <br>ATEX/IECEX   |  |

The following are standard on the EH40:

|   |   |  |
|---|---|--|
| <br>Explosion Proof | <br>Stainless Steel Valve Body | <br>NEMA 4X |
|---|---|--|

### Certifications



CRN - Canadian Registration Number



\*Consult Factory for Listing and Pricing Details.



See Website for certification details.

# EH40 SERIES 1/4 - 1/2" PIPE SIZE

## Construction

|                    |                        |
|--------------------|------------------------|
| Valve Body:        | 316 SS                 |
| Piston:            | PEEK®                  |
| O Ring (Standard): | Buna-N (-50° to 225°F) |
| O Ring (Optional): | Viton (0° to 400°F)    |
| Piston Rings:      | Buna / Viton           |
| Cartridge:         | 316 SS & 430 SS        |
| Pilot / Seal:      | 303 SS / PTFE          |
| Spring:            | 302 SS                 |
| Plunger:           | 430 SS                 |
| Bonnet Retainer:   | 430 SS                 |

\*Consult Sales for maximum allowable inlet pressures for Fluid Temps Exceeding 300°F.

## Pressure

Maximum pressures shown are measured in PSIG

|  | 1/4" Pipe Size | 1/2" Pipe Size |
|--|----------------|----------------|
| Normally Closed AC Voltage (Standard):       | 7,500          | 7,500          |
| Normally Closed AC Voltage (Higher Wattage): | 10,000         | 10,000         |
| Normally Closed DC Voltage (Standard):       | 3,500          | 3,600          |
| Normally Closed DC Voltage (Higher Wattage): | 10,000         | 7,200          |
| Normally Open AC Voltage:                    | 5,500          | 6,500          |
| Normally Open DC Voltage (Higher Wattage):   | 5,500          | 6,200          |
| Minimum Required Pressure Differential:      | 50             | 50             |

## Flow

|                | 1/4" Pipe Size | 1/2" Pipe Size |
|----------------|----------------|----------------|
| C <sub>v</sub> | 1.1            | 4.5            |

## Electrical (Coil)

|                             | Standard                | High Wattage            |
|-----------------------------|-------------------------|-------------------------|
| Power:                      | 10 Watts                | 22 Watts                |
| AC Inrush:                  | 1 amp @ 120V AC         | 2.5 amp @ 120V AC       |
| AC Holding:                 | 0.1 amp @ 120V AC       | 0.2 amp @ 120V AC       |
| Insulation:                 | Class "F"               | Class "H"               |
| Duty:                       | Continuous              | Continuous              |
| Connection:                 | 1/2" NPT, 18" Leads     | 1/2" NPT, 18" Leads     |
| Enclosure                   |                         |                         |
| Explosion Proof (Standard): | NEMA 3, 3S, 4, 4X, 7, 9 | NEMA 3, 3S, 4, 4X, 7, 9 |
| General Service:            | NEMA 1, 2, 3, 3S, 4, 4X | NEMA 1, 2, 3, 3S, 4, 4X |

## Possible Media



General Gases and Liquids

Fuels & Light Oils

Flammable Gases

Hydrogen

Oxygen

Corrosives

Sea & Salt Water

Viscous Liquids

Steam

Cryogenics

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