



**CLARK COOPER**  
A DIVISION OF MAGNATROL VALVE CORP.

# HIGH PRESSURE SOLENOID VALVES

Available for  
Quick Delivery



Controls the flow of

- Gases & Liquids up to 15,000 PSIG
- Natural Gas, Hydrogen & other High Pressure Gases
- High Pressure Cryogenics
- Flammable Liquids & Gases

CATALOG EH-3.9

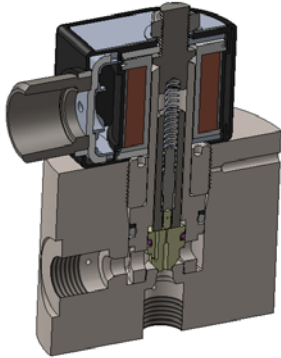
Company Overview		3
EX40	The EX40 is a 3/8" MPF reduced port valve that handles pressures up to 15,000 PSI.	4
EH40	The EH40 is a 1/4" & 1/2" NPT full port valve the handles pressures up to 10,000 PSI.	7
EH50	The EH50 is a 1/2" full port valve that handles pressures up to 10,000 PSI and features an integrated check valve.	10
EH30	The EH30 is a 1/4" NPT reduced port valve that handles pressures up to 10,000 PSI.	13
EH70	The EH70 is a 1/2 - 2" full port valve that handles pressures up to 1,500 PSI.	16
EP70	The EP70 is a 1/2" full port valve that handles pressures up to 5,000 PSI.	20
Request for Quote		23

## Background

The Clark Cooper Division of Magnatrol Valve Corporation offers a complete line of industrial solenoid valves for process control.

- Established 1914
- Experienced Applications / Engineering Staff for Customer Assistance
- Certified ISO 9001:2000 Quality Management System
- Quick Delivery

## News & Updates



Clark Cooper's latest development is the EX line.

Highlights of the EX line:

- Operates at pressures up to 15,000 PSIG (1,030 bar)
- Perfect for hydrogen dispensing and refueling systems
- Cartridge style design for easy maintenance
- Cost effective alternative to ball valves

CRN (Canadian Registration Number) is a registration process that involves the careful review of a manufacturer's equipment design by responsible provincial engineers.

Our EH30, EH40, EH50, EH70 Series, EX30, EX40 and ER Series (up to 3") are now approved and registered for **all** Canadian Provinces.



## Magnatrol

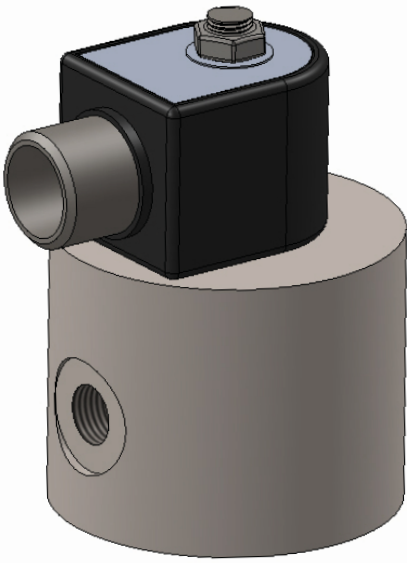
General Purpose Industrial Solenoid Valves are available direct from Magnatrol Valve Corporation.

- 1/4" to 3" Pipe Size
- Bronze and Stainless Steel
- Watertight and Explosion-Proof Solenoid Enclosure
- Pressures up to 500 PSIG
- Temperatures up to 400°F
- Quick Delivery

For additional information contact:  
 Magnatrol Valve Corporation  
 Tel: 973-427-4341  
 Fax: 973-427-7611  
 Email: [info@magnatrol.com](mailto:info@magnatrol.com)  
[www.magnatrol.com](http://www.magnatrol.com)  
 Request Catalog 3006



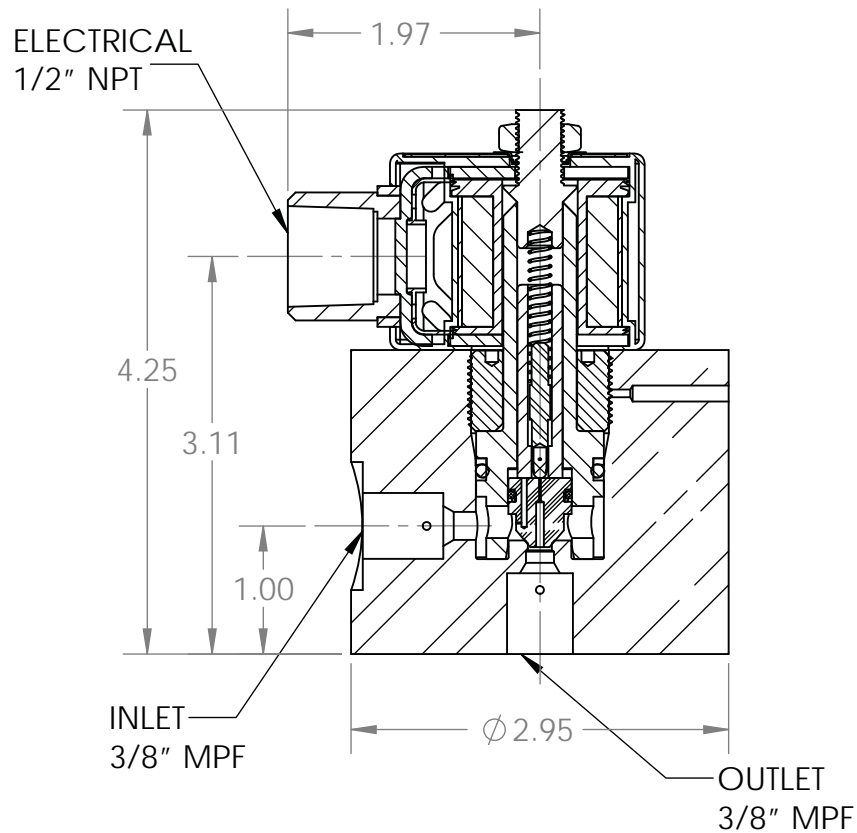
# EX40 SERIES 3/8" MPF



### Features:

The reduced port EX40 is great for a wide range of media. This pilot operated valve has become a popular and effective choice in the emerging Hydrogen Dispensing market. The EX40 is also an excellent valve to control the flow of high pressure air, water, hydrogen, nitrogen, and other gases or light liquids compatible with materials of construction. The EX40 is the highest pressure valve in our collection and offers a cartridge design that alleviates your demanding maintenance requirements. The EX40 requires a 100 PSIG minimum pressure differential between inlet and outlet for operation. The valve's simple design with few moving components have made it a great choice for inlet pressures as high as 15,000 PSIG. The Normally Closed EX40 must be mounted upright and vertical. **Filters recommended for all applications.**

### Dimensions



Normally Closed











# EX40 SERIES 3/8" MPF

## How To Order

Base Model Number	Orifice	DC Voltage	Suffix Option Field(s)																		
EX40	03																				
03	3/16"	<table border="1"> <tr><td>D012</td><td>12 DC</td></tr> <tr><td>D024</td><td>24 DC</td></tr> <tr><td>D120</td><td>120 DC</td></tr> </table>	D012	12 DC	D024	24 DC	D120	120 DC	<table border="1"> <tr><td>DN</td><td>Din Connector (Not Explosion Proof)</td></tr> <tr><td>GS</td><td>General Service (Not Explosion Proof)</td></tr> <tr><td>HY</td><td>Hydrogen Service (Helium leak test)</td></tr> <tr><td>OX</td><td>Oxygen Clean</td></tr> <tr><td>VT</td><td>Viton O-Rings</td></tr> <tr><td>T5</td><td>Class 5 Leakage Testing</td></tr> </table>	DN	Din Connector (Not Explosion Proof)	GS	General Service (Not Explosion Proof)	HY	Hydrogen Service (Helium leak test)	OX	Oxygen Clean	VT	Viton O-Rings	T5	Class 5 Leakage Testing
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)																				
OX	Oxygen Clean																				
VT	Viton O-Rings																				
T5	Class 5 Leakage Testing																				

\* Standard Connection is LF6 Medium Pressure Fitting for 3/8" Tubing (9/16 - 18 thread)

## Possible EX40 Options & Add-Ons

 72" Lead Length	 Din Connector	 Screw Terminal	 General Service	 Hydrogen Service
 Oxygen Clean	 NEMA 4X	 Class V Leakage Testing	 Stainless Steel Tags	 Viton O-Rings

The following are standard on the EX40:

 Explosion Proof	 Stainless Steel Valve Body	 22 W Coil
---	---	--

## Certifications



CRN - Canadian Registration Number

# EX40 SERIES

## 3/8" MPF

### 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:	302 SS / PTFE
Cartridge:	316 SS & 430 SS
Pilot & Seal:	303 SS & PTFE
Spring:	302 SS*
Plunger:	430 SS

\*Standard material

### Pressure

Maximum pressures shown are measured in PSIG

	3/16" Orifice Size
Normally Closed AC Voltage:	-
Normally Closed DC Voltage:	15,000
Normally Open AC Voltage:	-
Normally Open DC Voltage:	-
Minimum Pressure Differential:	100











### Flow

	3/16" Orifice Size
C <sub>v</sub>	0.50

### Electrical (Coil)

Power:	22 Watts
Insulation:	Class "H"
Duty:	Continuous
Connection:	1/2" NPT, 18" Leads
Enclosure	
Explosion Proof (Standard):	NEMA 3, 3S, 4, 4X, 7, 9
General Service:	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

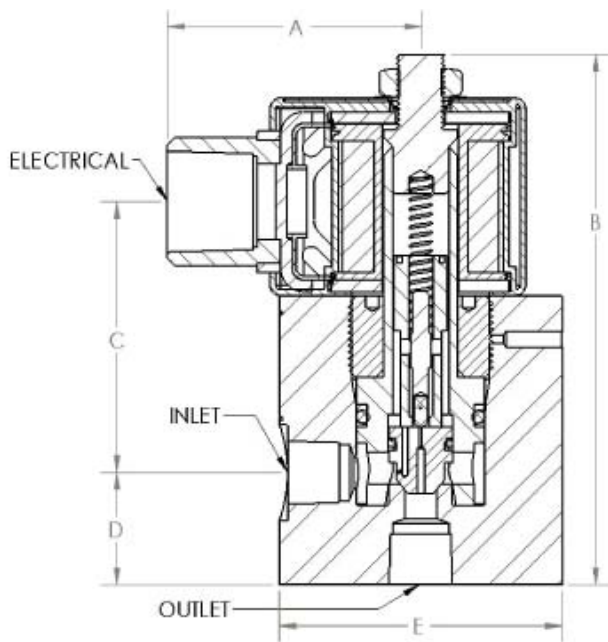
# EH40 SERIES 1/4 - 1/2" PIPE SIZE



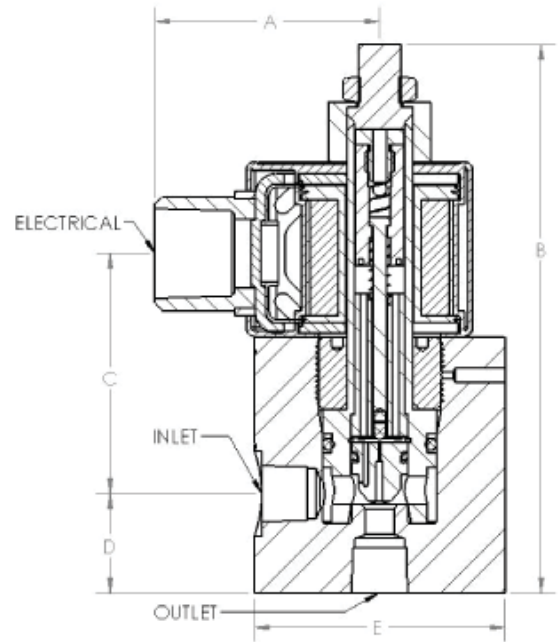
**Features:**

The full port EH40 is great for a wide range of media. This pilot operated valve has become a popular and effective choice in the emerging Hydrogen Dispensing market. The EH40 is also an excellent valve to control the flow of high pressure air, water, hydrogen, nitrogen, and other gases or light liquids compatible with materials of construction. Available in both 1/4" and 1/2" sizes, the EH40 is the workhorse of our collection and offers a cartridge design that alleviates your demanding maintenance requirements. The EH40 requires a 50 PSIG minimum pressure differential between inlet and outlet for operation. The valve's simple design with few moving components have made it a great choice for inlet pressures as high as 10,000 PSIG. The Normally Closed DC Powered EH40 valves must be mounted upright and vertical, while all other EH40 valves are universal mount. **Filters recommended for all applications.**

**Dimensions**



**Normally Closed**



**Normally Open**

	Inlet/ Outlet	Electrical	Ship Weights (lbs.)	Reference Dimensions (inches)				
				A	B	C	D	E
EH40-04 Normally Closed	1/4" NPT	1/2" NPT 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















# EH40 SERIES

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




### How To Order

<p>Base Model Number</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">EH40</div>	—	<p>Connection Size</p> <div style="border: 1px solid black; width: 40px; height: 30px; margin: 5px auto;"></div> <table border="1" style="margin: 5px auto; border-collapse: collapse; text-align: center;"> <tr><td>04</td><td>1/4"</td></tr> <tr><td>08</td><td>1/2"</td></tr> </table>	04	1/4"	08	1/2"	—	<p>AC/DC Voltage and Hertz</p> <div style="border: 1px solid black; width: 40px; height: 30px; margin: 5px auto;"></div> <table border="1" style="margin: 5px auto; border-collapse: collapse; text-align: center;"> <tr><td>A024</td><td>24 / 60</td></tr> <tr><td>A120</td><td>120 / 60</td></tr> <tr><td>A240</td><td>240 / 60</td></tr> <tr><td>D012</td><td>12 DC</td></tr> <tr><td>D024</td><td>24 DC</td></tr> <tr><td>D120</td><td>120 DC</td></tr> </table>	A024	24 / 60	A120	120 / 60	A240	240 / 60	D012	12 DC	D024	24 DC	D120	120 DC	—	<p>Suffix Option Field (s)</p> <div style="border: 1px dashed black; width: 100%; height: 20px; margin: 5px auto;"></div> <table border="1" style="margin: 5px auto; border-collapse: collapse; text-align: center;"> <tr><td>DN</td><td>Din Connector (Not Explosion Proof)</td></tr> <tr><td>GS</td><td>General Service (Not Explosion Proof)</td></tr> <tr><td>HY</td><td>Hydrogen Service (Helium leak test)</td></tr> <tr><td>NO</td><td>Normally Open</td></tr> <tr><td>OX</td><td>Oxygen Clean</td></tr> <tr><td>TC</td><td>Tube Connector</td></tr> <tr><td>T5</td><td>Class 5 Leakage Test</td></tr> <tr><td>XP</td><td>22 Watt Coil (Higher Pressure)</td></tr> <tr><td>S4</td><td>1/4" Connection per SAE J1926</td></tr> <tr><td>S8</td><td>1/2" Connection per SAE J1926</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	TC	Tube Connector	T5	Class 5 Leakage Test	XP	22 Watt Coil (Higher Pressure)	S4	1/4" Connection per SAE J1926	S8	1/2" Connection per SAE J1926
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																																									
TC	Tube Connector																																									
T5	Class 5 Leakage Test																																									
XP	22 Watt Coil (Higher Pressure)																																									
S4	1/4" Connection per SAE J1926																																									
S8	1/2" Connection per SAE J1926																																									

### Possible EH40 Options & Add-Ons

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

The following are standard on the EH40:

		
Explosion Proof	Stainless Steel Valve Body	NEMA 4X

### Certifications



CRN - Canadian Registration Number



# 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:	302 SS / PTFE / 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

(856) 829-4580  
info@magnatrol.com  
www.clarkcooper.com

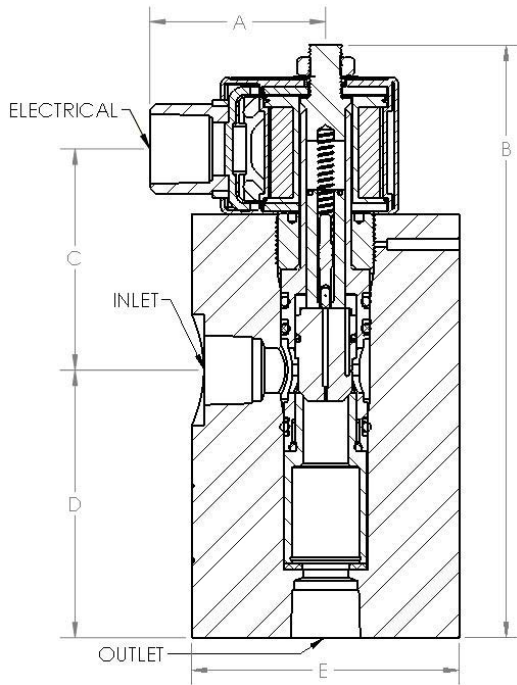
# EH50 SERIES 1/2" PIPE SIZE



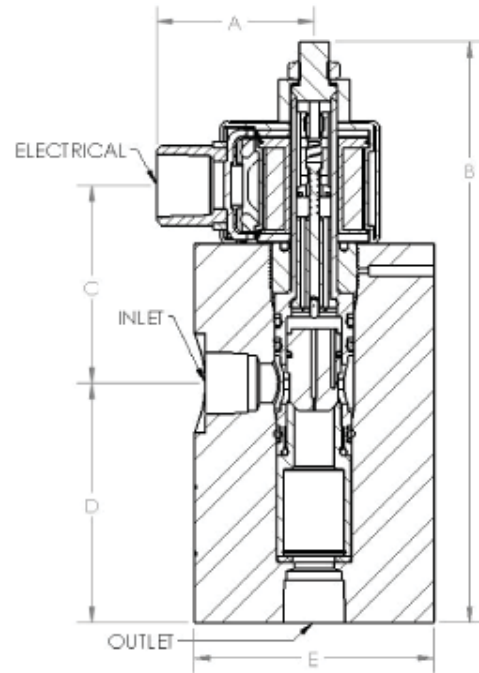
### Features:

The full port EH50 offers a wide range of solutions for your application needs, and is best used to control the flow of high pressure air, water, natural gas, hydrogen, nitrogen and other gases or light liquids compatible with materials of construction. This pilot operated valve is a great choice for differential pressures as high as 10,000 PSI. The valve comes in a 1/2" NPT connection size and requires a 100 PSIG minimum pressure differential between inlet and outlet for operation. The EH50 offers many of the benefits of our EH40, but with the available option of an **integrated check valve**. The EH50 is an ideal choice for CNG equipment and applications, whether your system utilizes a single-line buffer or a 3-bank cascade filling scheme. The valve also features a cartridge that can be easily removed for maintenance. The Normally Closed EH50 valves must be mounted upright and vertical, while the Normally Open EH50 valves are universal mount. **Filters recommended for all applications.**

### Dimensions



Normally Closed



Normally Open









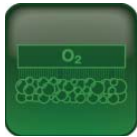









					Reference Dimensions (inches)				
	Inlet/ Outlet	Electrical	Ship Weight (Aluminum Body)	Ship Weight (316 SS Body)	A	B	C	D	E
EH50-08 Normally Closed	1/2" NPT	1/2" NPT Conduit	4.25 lbs.	9.75 lbs.	2.0	6.6	2.5	3.0	ø3.00
EH50-08 Normally Open			4.50 lbs.	10.0 lbs.	2.0	7.3	2.5	3.0	ø3.00

# EH50 SERIES 1/2" PIPE SIZE

## How To Order

Base Model Number	Port Size	AC/DC Voltage and Hertz	Suffix Option Field (s)																						
EH50	08 08   1/2"	A024   24 / 60 A120   120 / 60 A240   240 / 60 D012   12 DC D024   24 DC D120   120 DC	<table border="1"> <tr><td>CK</td><td>Integrated Check Valve</td></tr> <tr><td>DN</td><td>Din Connector (Not Explosion Proof)</td></tr> <tr><td>GS</td><td>General Service (Not Explosion Proof)</td></tr> <tr><td>HY</td><td>Class 5 Leakage test with Helium</td></tr> <tr><td>NO</td><td>Normally Open</td></tr> <tr><td>OX</td><td>Oxygen Clean</td></tr> <tr><td>SS</td><td>316 SS Valve Body</td></tr> <tr><td>TC</td><td>Tube Connector</td></tr> <tr><td>VT</td><td>Viton O-Ring</td></tr> <tr><td>XP</td><td>22 Watt Coil (Higher Pressure)</td></tr> <tr><td>T5</td><td>Class 5 Leakage Test with Air</td></tr> </table>	CK	Integrated Check Valve	DN	Din Connector (Not Explosion Proof)	GS	General Service (Not Explosion Proof)	HY	Class 5 Leakage test with Helium	NO	Normally Open	OX	Oxygen Clean	SS	316 SS Valve Body	TC	Tube Connector	VT	Viton O-Ring	XP	22 Watt Coil (Higher Pressure)	T5	Class 5 Leakage Test with Air
CK	Integrated Check Valve																								
DN	Din Connector (Not Explosion Proof)																								
GS	General Service (Not Explosion Proof)																								
HY	Class 5 Leakage test with Helium																								
NO	Normally Open																								
OX	Oxygen Clean																								
SS	316 SS Valve Body																								
TC	Tube Connector																								
VT	Viton O-Ring																								
XP	22 Watt Coil (Higher Pressure)																								
T5	Class 5 Leakage Test with Air																								

## Possible EH50 Options & Add-Ons

 Integrated Check Valve	 72" Lead Length	 Din Connector	 Screw Terminal	 1/4 Tab (spade)	 General Service	 Hydrogen Service	 Normally Open	 Oxygen Clean
 Stainless Steel Valve Body	 SAE Port	 Tube Connector	 Universal Mount	 NEMA 4X	 Class V Leakage Testing	 Stainless Steel Tags	 Viton O-Rings	 22 W Coil

The following are standard on the EH50:



Explosion Proof

## Certifications



CRN - Canadian Registration Number

# EH50 SERIES 1/2" PIPE SIZE

## Construction

Valve Body:	7075-T6 Anodized Aluminum* / 316 SS
Piston:	PEEK
O Ring (Standard):	Buna-N (-50° to 225°F)
O Ring (Optional):	Viton (0° to 400°F)
Piston Rings / Seal:	302 SS / PTFE
Cartridge:	316 SS & 430 SS
Pilot / Seal:	303 SS / PTFE
Spring:	302 SS
Plunger:	430 SS
Bonnet Retainer:	430 SS
Cartridge Gasket:	Nylon
Optional Check Valve:	304 SS / PEEK

\*Standard material

## Pressure

Maximum pressures shown are measured in PSIG

	Normally Closed	Normally Open
AC Voltage (Standard 10 W):	7,500	7,500
AC Voltage (Higher Wattage 22 W):	10,000	-
DC Voltage (Standard 10 W):	3,500	2,500
DC Voltage (Higher Wattage 22 W):	5,000	5,700
Minimum Pressure Differential:	100	100

## Flow

	Normally Closed	Normally Open
C <sub>v</sub>	4.5	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

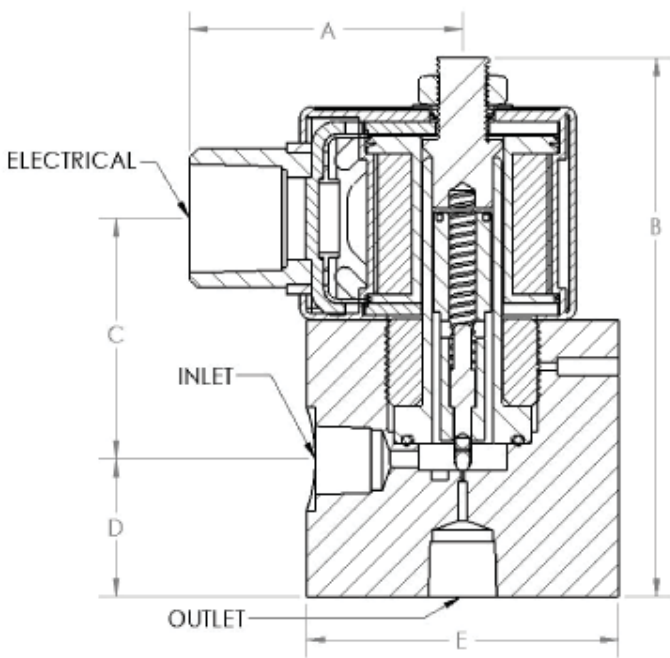


# EH30 SERIES 1/4" PIPE SIZE

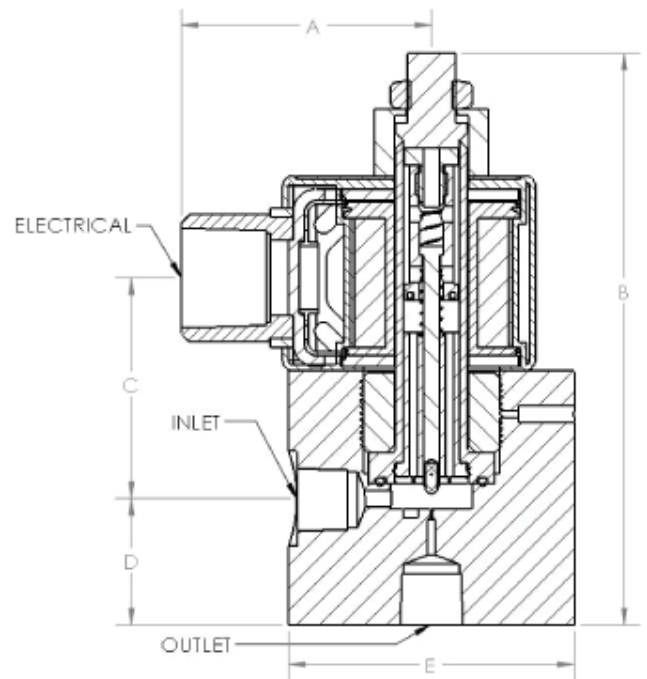


**Features:**

The EH30 is great for a wide range of pressures and many different fluids and gases. This direct acting valve offers a solution to a variety of applications to control the flow of high pressure air, water, hydrogen, nitrogen and other gases or light liquids compatible with materials of construction. Suitable for cryogenic applications, this low flow, high pressure valve packages great versatility in a compact design for pressures up to 10,000 PSIG. No minimum pressure is required for opening, and it will not “burp” due to any rapid spikes in inlet pressure. Both the Normally Closed and Normally Open versions can be universally mounted, as a standard. They may be mounted in any orientation. **Filters recommended for all applications.**



**Normally Closed**



**Normally Open**


				Reference Dimensions (inches)				
	Inlet/Outlet	Electrical	Ship Weight (lbs.)	A	B	C	D	E
EH30-04 Normally Closed	1/4" NPT	1/2" NPT Conduit	2.90	2.0	3.9	1.7	1.0	ø 2.20
EH30-04 Normally Open			3.15	2.0	4.5	1.7	1.0	ø 2.20

# EH30 SERIES 1/4" PIPE SIZE

## How To Order

Base Model Number	Connection & Orifice Size	AC/DC Voltage and Hertz	Suffix Option Field (s)																																
EH30	<table border="1"> <tr> <td>041</td> <td>1/4", 0.019"</td> </tr> <tr> <td>042</td> <td>1/4", 0.032"</td> </tr> </table>	041	1/4", 0.019"	042	1/4", 0.032"	<table border="1"> <tr> <td>A024</td> <td>24 / 60</td> </tr> <tr> <td>A120</td> <td>120 / 60</td> </tr> <tr> <td>A240</td> <td>240 / 60</td> </tr> <tr> <td>D012</td> <td>12 DC</td> </tr> <tr> <td>D024</td> <td>24 DC</td> </tr> <tr> <td>D120</td> <td>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"> <tr> <td>DN</td> <td>Din Connector (Not Explosion Proof)</td> </tr> <tr> <td>GS</td> <td>General Service (Not Explosion Proof)</td> </tr> <tr> <td>HY</td> <td>Class 5 Leakage Test with Helium</td> </tr> <tr> <td>NO</td> <td>Normally Open</td> </tr> <tr> <td>OX</td> <td>Oxygen Clean</td> </tr> <tr> <td>CY</td> <td>Cryogenic Service</td> </tr> <tr> <td>TC</td> <td>Tube Connector</td> </tr> <tr> <td>T5</td> <td>Class 5 Leakage Test with Air</td> </tr> </table>	DN	Din Connector (Not Explosion Proof)	GS	General Service (Not Explosion Proof)	HY	Class 5 Leakage Test with Helium	NO	Normally Open	OX	Oxygen Clean	CY	Cryogenic Service	TC	Tube Connector	T5	Class 5 Leakage Test with Air
041	1/4", 0.019"																																		
042	1/4", 0.032"																																		
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	Class 5 Leakage Test with Helium																																		
NO	Normally Open																																		
OX	Oxygen Clean																																		
CY	Cryogenic Service																																		
TC	Tube Connector																																		
T5	Class 5 Leakage Test with Air																																		

## Possible EH30 Options & Add-Ons

 72" Lead Length	 Din Connector	 Screw Terminal	 1/4 Tab (spade)	 General Service	 Hydrogen Service	 Normally Open
 Oxygen Clean	 Tube Connector	 Class V Leakage Testing	 NEMA 4X	 Stainless Steel Tags		

The following are standard on the EH30:

 Explosion Proof	 Stainless Steel Valve Body	 Universal Mount
---	---	--

## Certifications



CRN - Canadian Registration Number

## Construction

Valve Body:	316 SS
O Ring (Standard):	PTFE (cryo to 400°F)
Cartridge:	316 SS & 430 SS
Pilot / Seal:	303 SS / PTFE (cryo to 400°F)
Spring:	302 SS
Plunger:	430 SS
Bonnet Retainer:	430 SS

## Pressure

Maximum pressures shown are measured in PSIG

	Orifice Size	
	0.019"	0.032"
Normally Closed AC Voltage:	10,000	10,000
Normally Closed DC Voltage:	10,000	6,300
Normally Open AC Voltage:	7,500	3,500
Normally Open DC Voltage:	4,300	1,800

## Flow

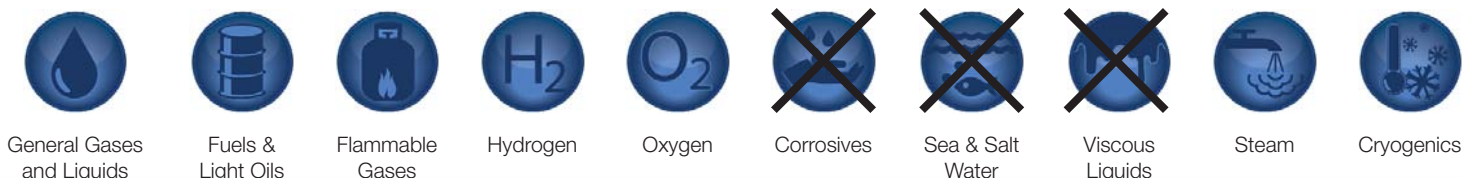
Orifice Size	0.019"	0.032"
C <sub>v</sub>	0.005	0.020

## Electrical (Coil)

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

\* 240V AC valves have standard 10 watt coil with Class "F" insulation.

## Possible Media



# EH70 SERIES 1/2" TO 2" PIPE SIZE



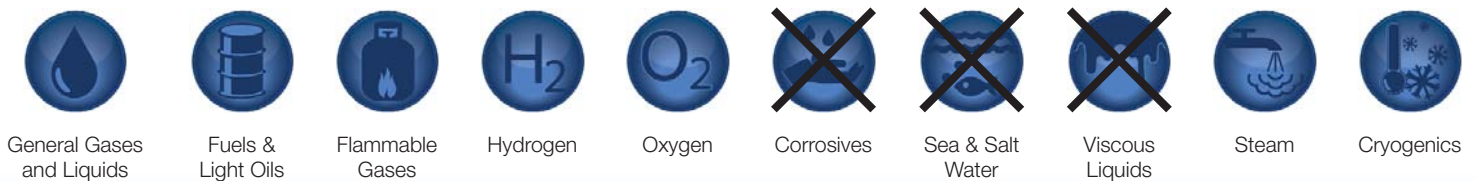
### Features:

The powerful, full port EH70 is great for a wide range of flow rates, temperatures, and a wide range of fluids and gases. It has become a popular choice for cryogenic conditions and applications that need to control higher pressures in a hazardous location. This pilot assisted, direct operated valve utilizes a UL/CSA certified enclosure for all hazardous locations, is available in larger pipe sizes (up to 2") and for inlet pressures up to 1,500 PSIG. The versatile EH70 requires no minimum pressure for opening, and has the option to be universally mounted (Normally Closed and Normally Open). This valve is CRN certified with all Canadian provinces. Other uses of the EH70 include controlling the flow of corrosive fluids, deionized water, condensate, ammonias, vegetable oils, fuel oils, hydrogen, cryogenics, flammable liquids and gases and other gases or liquids compatible with materials of construction. **Filters recommended for all applications.**

### How To Order

Base Model Number		Connection size in NPT		Connection type		AC/DC Voltage and Hertz		Fluid		Suffix Option Field (s)	
EH70		[ ]		[ ]		[ ]		[ ]		[ ]	
08	1/2"	A	NPT	A024	24 / 60	G	Gas	CY	Cryogenic Service		
12	3/4"	B	Socket Weld	A120	120 / 60	L	Liquid	DN	Din Connector (Not Explosion Proof)		
16	1"	G	150# Flange	A240	240 / 60			ETL	ETL Listed Solenoid		
24	1 1/2"	H	300# Flange	D024	24 DC			HY	Class 5 Leakage Test with Helium		
32	2"	J	600# Flange	D120	120 DC			NO	Normally Open		
				D240	240 DC			OX	Oxygen Clean		
								S1	Single Switch (General Service)		
								SS	Stainless Steel Tags		
								X1	Single Switch (General Service)		
								T5	Class 5 Leakage Test with Air		

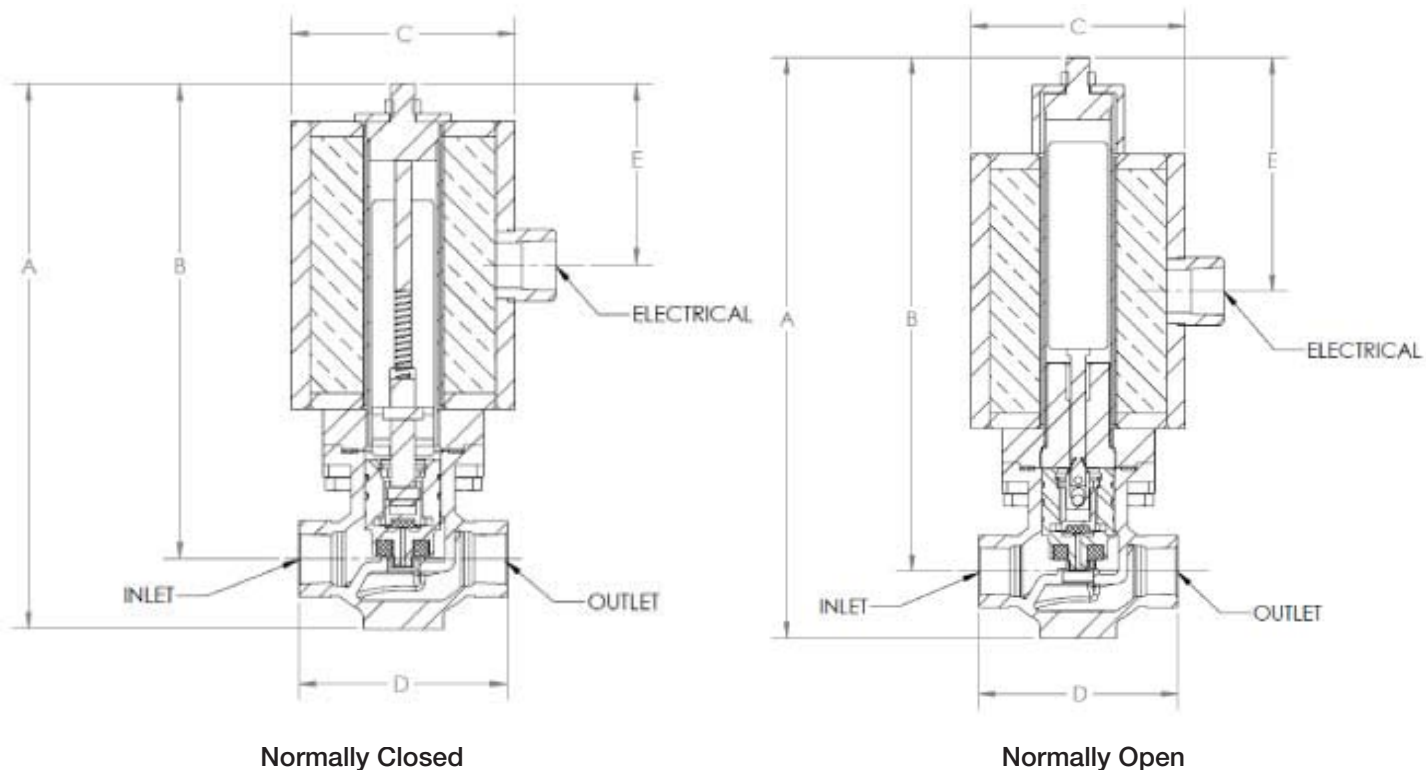
### Possible Media





# EH70 SERIES 1/2" TO 2" PIPE SIZE

## Dimensions



	Pipe Size	Ship Weight (lbs.)	Reference Dimensions (inches)				
			A	B	C	D	E
EH70-08 Normally Closed	1/2"	15	8.5	7.4	ø 3.5	3.3	2.8
EH70-08 Normally Open			9.5	8.4	ø 3.5	3.3	3.8
EH70-12 Normally Closed	3/4"	16	8.8	7.6	ø 3.5	3.5	2.8
EH70-12 Normally Open			9.7	8.6	ø 3.5	3.5	3.8
EH70-16 Normally Closed	1"	18	9.3	7.8	ø 3.5	4.1	2.8
EH70-16 Normally Open			10.3	8.8	ø 3.5	4.1	3.8
EH70-24 Normally Closed	1 1/2"	30	11.6	9.8	ø 4.5	4.9	3.3
EH70-24 Normally Open			12.7	10.8	ø 4.5	4.9	4.5
EH70-32 Normally Closed	2"	38	12.4	10.2	ø 4.5	6.0	3.3
EH70-32 Normally Open			13.7	11.4	ø 4.5	6.0	4.5

# EH70 SERIES 1/2" TO 2" PIPE SIZE

## Possible EH70 Options & Add-Ons



Cryogenic Cleaning



72" Lead Length



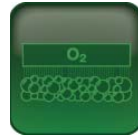
Din Connector



Hydrogen Service



Normally Open



Oxygen Clean



ETL



Stainless Steel Tags



SAE Port



Tube Connector



Single Switch



NEMA 4X



Class V Leakage Testing

## The following are standard on the EH70:



Explosion Proof



Stainless Steel Valve Body



Universal Mount  
\*1/2" and 3/4" only

## Certifications



CRN  
(Canadian Registration Number)



ETL Listed solenoid is an available option, at an additional price.

Conforms to UL Std. 1203  
Certified to CAN/CSA Std. C22.2 No.30

\*Consult Factory for Listing and Pricing Details.

# EH70 SERIES

## 1/2" TO 2" PIPE SIZE

### Construction

Valve Body:	316 SS (CF8M)
Piston:	303 SS
Piston Rings:	PTFE (cryo to 400°F)
Plunger:	430 SS
Pilot Valve:	303 SS
Bonnet Tube:	304 SS
Bonnet Base Flange:	304 SS
Spring:	302 SS
Body Seal:	Non Asbestos Gasket (Durlon 9000™)
Valve Disc:	PTFE

### Flow & Wattage

Pipe & Orifice Size	Max Inlet Pressure (psig)	Cv	Coil	Voltages Available	Current (amps)
1/2"	1500	3.5	200 Series	24V AC/DC	3.29
3/4"	1200	7.5		120V AC/DC	0.74
1"	1200	13		220V AC/DC	0.44
1 1/2"	1200	25	300 Series	24V AC/DC	4.80
2"	1200	48		120V AC/DC	1.00
				220V AC/DC	0.44

### Electrical (Coil)

**Coil:**

Encapsulated Class "H", 36" leads - All AC/DC Voltages

**Coil Enclosure:**

Carbon Steel - Coil enclosure is completely seal-welded

NEMA 4 (watertight), NEMA 7, NEMA 4X optional

Explosion-Proof for Class I, Division 1, Groups A-D for Operating Temp Code T2D,

- Range -20 to +85 degrees C.

- Recognized to UL STD 429 CAN/CSA C22.2 No. 139 with Subject UL STD 906

**Conduit Connection:**

1/2" NPT

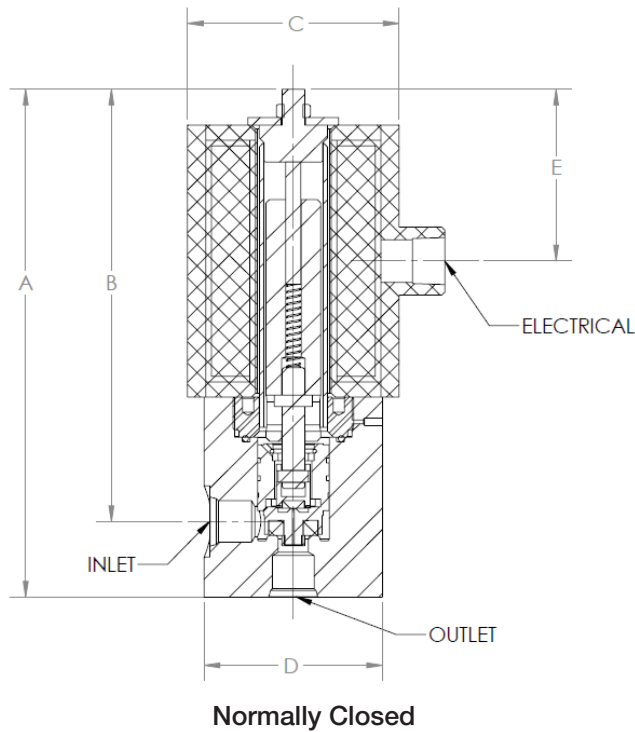
# EP70 SERIES 1/2" PIPE SIZE



### Features:

The powerful, full port EP70 is great for a wide range of liquid flow rates and temperatures. This pilot assisted, direct operated valve can be configured with a UL/CSA certified explosion proof coil for Class 1, Division 1, Group A-D locations. The EP70 has 1/2" NPT or SAE connections, and allows inlet pressures of up to 5000 psig. There is no minimum required pressure differential for opening/closing. The combination of a high power coil and larger internal bleed orifices, as compared to our other EH Series products, provides for less sensitivity to fluid viscosities and particulates. The EP70 can be used with water, fuel oils, flammable liquids and other liquids compatible with the construction materials. **Filters recommended for all applications.**

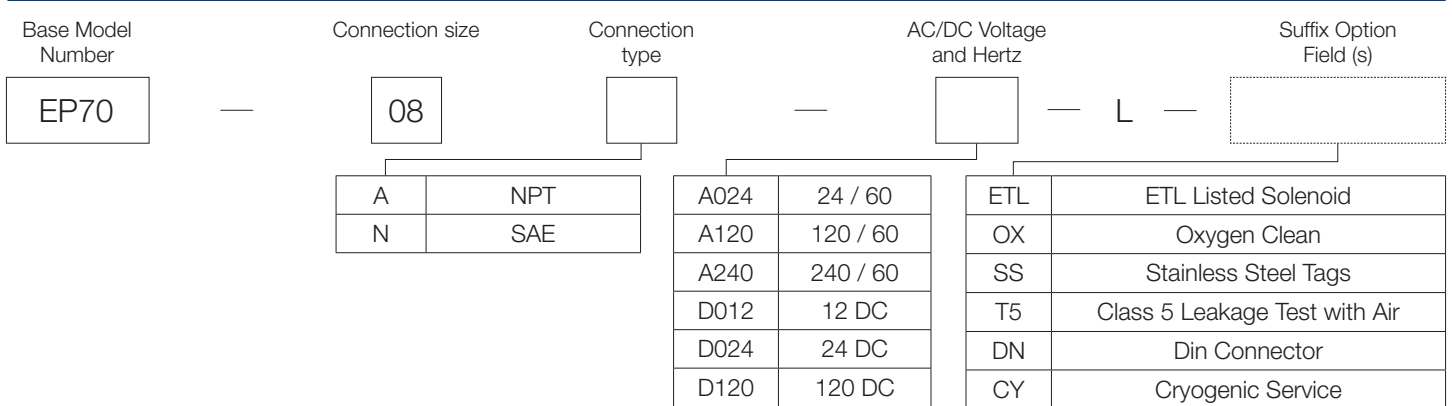
### Dimensions



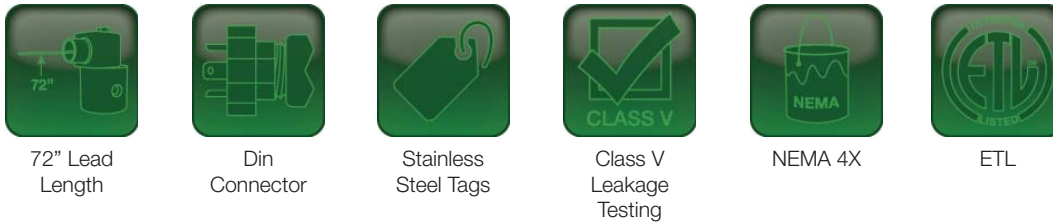
	Pipe Size	Ship Weight (lbs.)	Reference Dimensions (inches)				
			A	B	C	D	E
EP70-08 Normally Closed	1/2"	15	8.4	7.2	ø 3.5	3.0	2.8

# EP70 SERIES 1/2" PIPE SIZE

## How To Order



## Possible EP70 Options & Add-Ons



The following are standard on the EP70:



## Certifications



ETL Listed solenoid is an available option, at an additional price.

Conforms to UL Std. 1203  
Certified to CAN/CSA Std. C22.2 No.30

\*Consult Factory for Listing and Pricing Details.

## Construction

Valve Body:	316 SS (CF8M)
Piston:	303 SS
Piston Rings:	PTFE (cryo to 400°F)
Plunger:	430 SS
Pilot Valve:	303 SS
Bonnet Tube:	304 SS
Bonnet Base:	304 SS
Spring:	302 SS
Valve Disc:	PTFE

## Pressure

Maximum pressures shown are measured in PSIG

	Pipe Size
	1/2"
Normally Closed Standard AC:	5,000
Normally Closed Standard DC:	5,000
Minimum Pressure Differential:	0

## Flow & Wattage

Pipe Size	C <sub>v</sub>	Watts
1/2"	3.5	80

## Electrical (Coil)

### Coil:

Encapsulated Class "H", 36" leads - All AC/DC Voltages

### Coil Enclosure:

Carbon Steel - Coil enclosure is completely seal-welded

NEMA 4 (watertight), NEMA 7, NEMA 4X optional

Explosion-Proof for Class I, Division 1, Groups A-D for Operating Temp Code T2D,

- Range -20 to +85 degrees C.

- Recognized to UL STD 429 CAN/CSA C22.2 No. 139 with Subject UL STD 906

### Conduit Connection:

1/2" NPT

## Possible Media



# REQUEST FOR QUOTE

We appreciate the opportunity to quote on your requirements.

**For immediate quote:** Fill in the information below and CALL 856-829-4580

**For same day quote:** Fill in the information below and FAX to 856-829-7303

**For next day quote:** Email your requirements to techsupport@clarkcooper.com or use the Request For Quote form on our website www.clarkcooper.com

## YOUR COMPANY INFORMATION

Date: \_\_\_\_\_

Name: \_\_\_\_\_ Dept. or Title: \_\_\_\_\_

Company: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_ Fax: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Email: \_\_\_\_\_

Type of Business:  Resale / Distributor  OEM  End User

## VALVE INFORMATION

Quantity: \_\_\_\_\_ Requested Delivery: \_\_\_\_\_

**Valve Type:**  EH30 Series  EX30 Series  
(check one)  EH40 Series  EX40 Series  
 EH50 Series  EP70 Series  
 EH70 Series

**Flow Designation:**  Normally Closed (Energize to Open)  
 Normally Open (Energize to Close)

**Certifications:**  CRN (Canadian Registration Number)  
 ETL Listed Solenoid

### Valve Features

Pipe Size: \_\_\_\_\_

End Connection:  NPT

150#FL

300#FL

Other: \_\_\_\_\_

### Solenoid Features

Voltage:  AC \_\_\_\_\_ Volts \_\_\_\_\_ Hz

DC \_\_\_\_\_ Volts

Enclosure Construction:

Watertight  Explosion Proof

Other: \_\_\_\_\_

### Operating Conditions

Fluid: \_\_\_\_\_

Max. Op. Press. Diff.: \_\_\_\_\_

Fluid Temp: \_\_\_\_\_

Viscosity: \_\_\_\_\_

Flow Rate or C<sub>v</sub>: \_\_\_\_\_

Max. Press. Drop: \_\_\_\_\_

Ambient Temp: \_\_\_\_\_

Options / Application Notes: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## CONTACT INFORMATION



**CLARK COOPER**  
A DIVISION OF MAGNATROL VALVE CORP.

Phone: (856) 829-4580

Fax: (856) 829-7303

info@magnatrol.com

941 Hamilton Avenue

Roebling, NJ 08554



**CLARK COOPER**

A DIVISION OF MAGNATROL VALVE CORP.

Follow us on social media:

