

# F Series – Model 1

## High Flow, 2-Way, Direct Acting

- ▶ Normally Closed
- ▶ Line Sizes to 1" NPT
- ▶ Vibration Resistance to 9g
- ▶ Speed to 100 Cycles/Min.

These high flow solenoid valves offer broad media capability, including Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG). They are direct acting, 2-way models with primary wetted parts made of non-reactive stainless steel. They are particularly well suited to CNG compressors used at wellhead and transit booster stations.

### Media

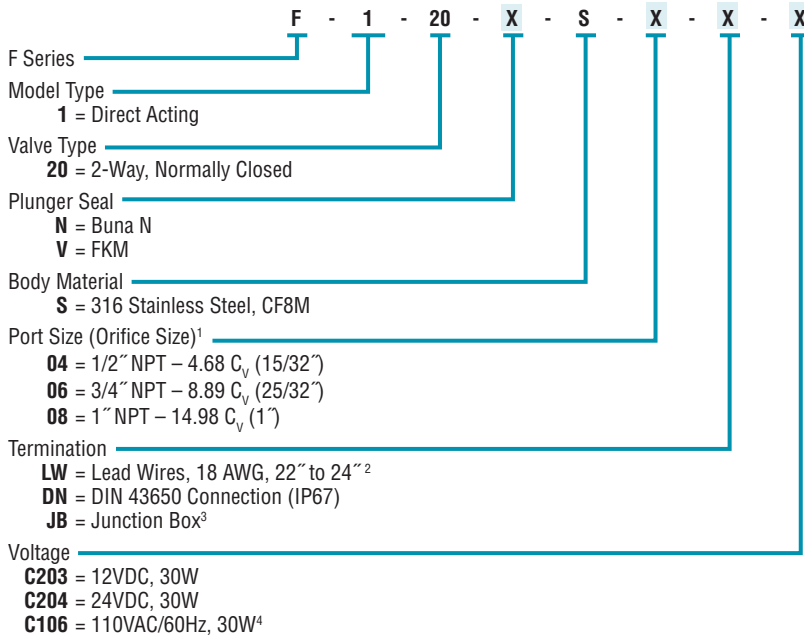
LPG, CNG, Air, Inert Gases, Water, Free Flowing Liquid, Oil, Diesel, Kerosene

### Specifications

<b>Wetted Parts</b>	
<b>Body Material</b>	316 Stainless Steel, CF8M
<b>Guide Assembly</b>	304 Stainless Steel
<b>Plunger, Insert</b>	430 Stainless Steel
<b>Spring</b>	302 Stainless Steel
<b>Seals</b>	See Below
<b>Pressure Range</b>	0 to 145 psi (0 to 10 bar)
<b>Fluid / Ambient Temperature</b>	0°F to 160°F (-18°C to +71°C)
<b>Expected Life (cycles)</b>	>2 Million

### How To Order

Example: F-1-20-V-S-06-DN-C203



Note: Dimensional drawings available. Contact Gems.

#### Notes:

1. C<sub>v</sub> = Quantity of water, at 68°F and in gallons per minute (GPM) that will flow through your valve with a 1psi pressure differential.
2. Not available with 110AC Voltage option.
3. Junction Box termination is available with explosion-proof options (UL, ATEX, IECEx). Please contact Gems for details.
4. Internally rectified.

# F Series – Model 2

## High Flow, 2-Way, Diaphragm Operated

- ▶ Normally Closed or Normally Open
- ▶ Line Sizes to 2-1/2" NPT
- ▶ Vibration Resistance to 9g
- ▶ Speed to 100 Cycles/Min.

These diaphragm operated solenoid valves offer Gems' highest flow capability for a broad range of media, including Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG). They are 2-way models, available with either N.O. or N.C. operation, and feature primary wetted parts made of non-reactive stainless steel. They are particularly well suited to CNG compressors used at wellhead and transit booster stations.

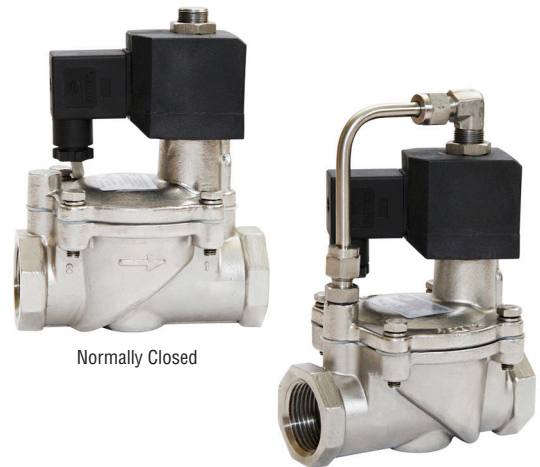
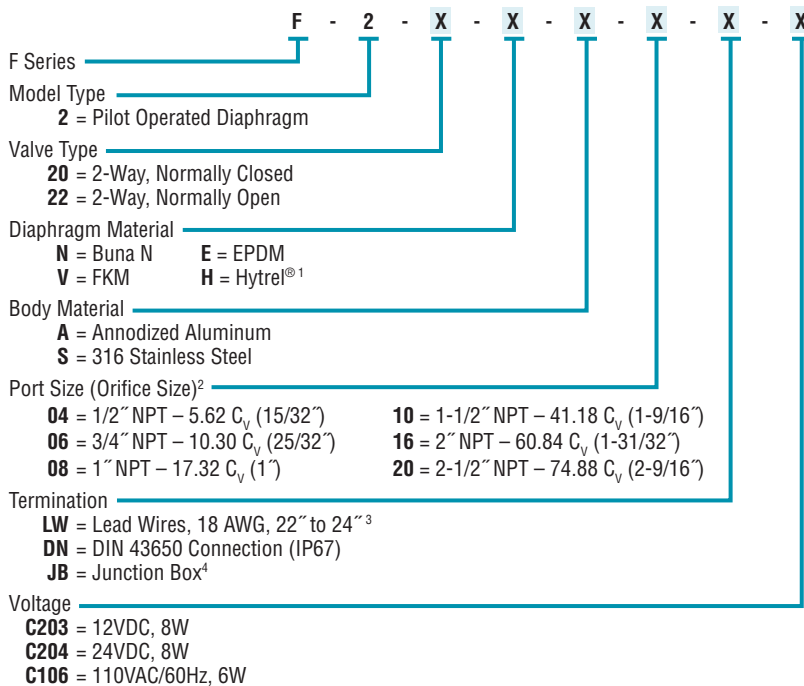
### Media

LPG, CNG, Air, Inert Gases, Water, Free Flowing Liquid, Oil, Diesel, Kerosene

### Specifications

<b>Wetted Parts</b>	
<b>Body Material</b>	316 Stainless Steel, CF8M or Anodized Aluminum
<b>Guide Assembly</b>	304 Stainless Steel
<b>Plunger, Insert</b>	430 Stainless Steel
<b>Spring</b>	302 Stainless Steel
<b>Seals</b>	See Below
<b>Pressure Range</b>	7 to 145 psi (0.5 to 10 bar)
<b>Fluid / Ambient Temperature</b>	25°F to 160°F (-4°C to +71°C)
<b>Expected Life (cycles)</b>	>2 Million

### How To Order



Normally Closed

Note: Dimensional drawings available. Contact Gems.

#### Notes:

1. Hytrel® must be selected for port sizes of 2" or greater.
2. C<sub>v</sub> = Quantity of water, at 68°F and in gallons per minute (GPM) that will flow through your valve with a 1psi pressure differential.
3. Not available with 110AC Voltage option.
4. Junction Box termination is available with explosion-proof options (UL, ATEX, IECEX). Please contact Gems for details.

# F Series – Model 3

## High Flow, 3-Way, Direct Acting

- ▶ 3/2 Universal Operation
- ▶ Line Sizes to 1/2" NPT
- ▶ Suitable for Vacuum to 9.34 x 10<sup>-7</sup> psi (10<sup>-6</sup> torr)
- ▶ Speed to 800 Cycles/Min.

These universal 3-way solenoid valves offer exceptional flow characteristics with bubble tight shut off. Main components are non-reactive stainless steel, are vibration resistant to 9g, and provide a life expectancy exceeding ten million cycles. They are ideal for single acting actuators or cylinders, control valve actuation, or diverting and mixing fluids.

### Media

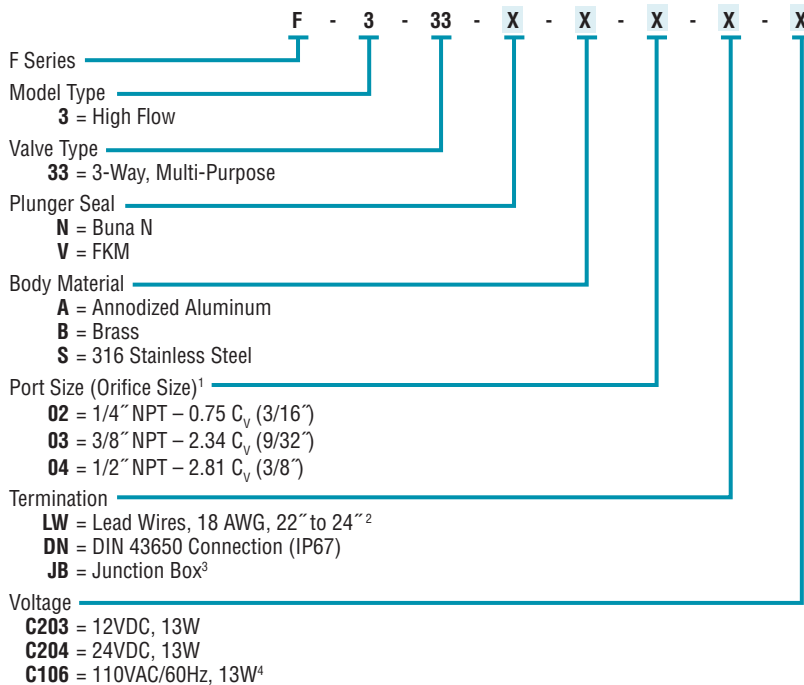
LPG, Air, Inert Gases, Water, Vacuum, Free Flowing Liquid, Oil, Diesel, Kerosene

### Specifications

Wetted Parts	
<b>Body Material</b>	See below
<b>Guide Assembly</b>	304 Stainless Steel
<b>Plunger, Insert</b>	430 Stainless Steel
<b>Spring</b>	302 Stainless Steel
<b>Seals</b>	See Below
<b>Pressure Range</b>	0 to 225 psi (0 to 15.5 bar)
<b>Fluid / Ambient Temperature</b>	0°F to 160°F (-18°C to +71°C)
<b>Expected Life (cycles)</b>	>10 Million

### How To Order

Example: F-3-33-V-S-04-DN-C203



Note: Dimensional drawings available. Contact Gems.

#### Notes:

1. C<sub>v</sub> = Quantity of water, at 68°F and in gallons per minute (GPM) that will flow through your valve with a 1psi pressure differential.
2. Not available with 110AC Voltage option.
3. Junction Box termination is available with explosion-proof options (UL, ATEX, IECEx). Please contact Gems for details.
4. Internally rectified.

# F Series – Model 4

## High Pressure, 2-Way, Direct Acting

- ▶ Normally Closed
- ▶ Pressure to 5802 psi (400 bar)
- ▶ Ideal for Fuel Gas Cutoff
- ▶ Vibration Resistance to 9g
- ▶ Speed to 300 Cycles/Min.

These high pressure solenoid valves offer broad media capability, including Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG). They are direct acting, normally closed, 2-way models with primary wetted parts made of non-reactive stainless steel. They are particularly well suited to CNG compressors used at wellhead, transit booster stations, and high pressure dispenser stations.

### Media

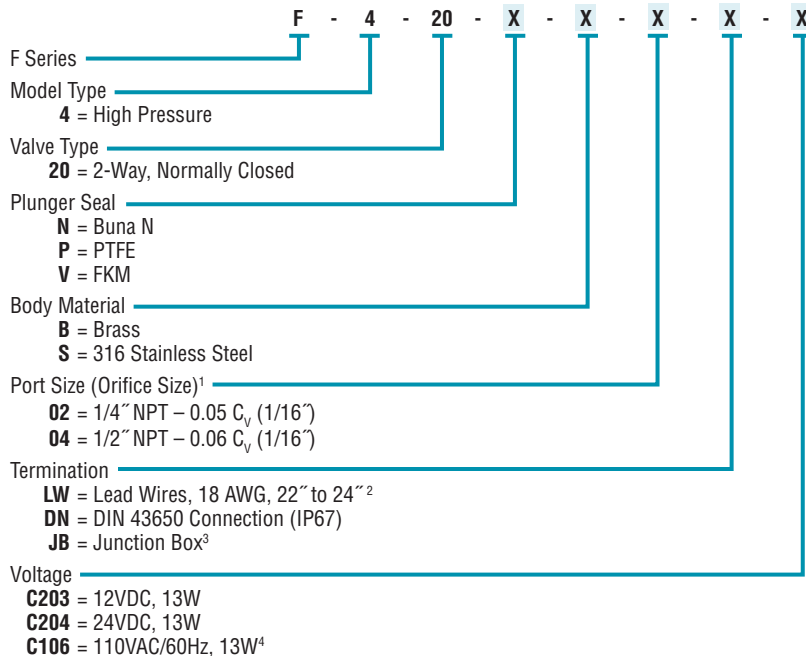
LPG, CNG, Oil, Diesel, Kerosene, Air, Inert Gases, Water, Free Flowing Liquid

### Specifications

<b>Wetted Parts</b>	
<b>Body Material</b>	316 Stainless Steel or Brass
<b>Guide Assembly</b>	304 Stainless Steel
<b>Plunger, Insert</b>	430 Stainless Steel
<b>Spring</b>	302 Stainless Steel
<b>Seals</b>	See Below
<b>Pressure Range</b>	0 to 5500 psi (0 to 380 bar)
<b>Fluid / Ambient Temperature</b>	0°F to +175°F (-18°C to +79°C)
<b>Expected Life (cycles)</b>	>2 Million

### How To Order

Example: F-4-20-V-S-04-DN-C203



Note: Dimensional drawings available. Contact Gems.

#### Notes:

1.  $C_v$  = Quantity of water, at 68°F and in gallons per minute (GPM) that will flow through your valve with a 1psi pressure differential.
2. Not available with 110AC Voltage option.
3. Junction Box termination is available with explosion-proof options (UL, ATEX, IECEx). Please contact Gems for details.
4. Internally rectified.