

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

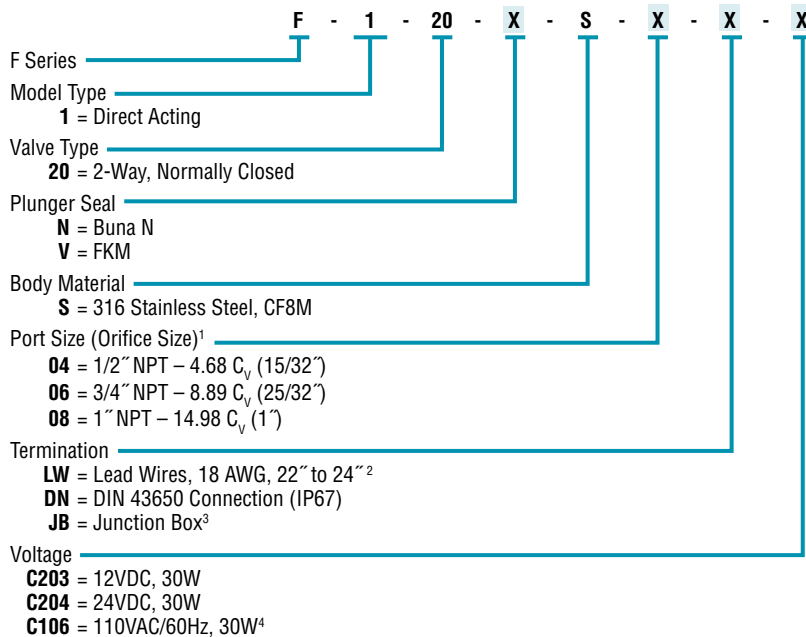
LPG, CNG, Air, Inert Gases, Water, Free Flowing Liquid, Oil, Diesel, Kerosene

Specifications

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

How To Order

Example: F-1-20-V-S-X-X-X



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.

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

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

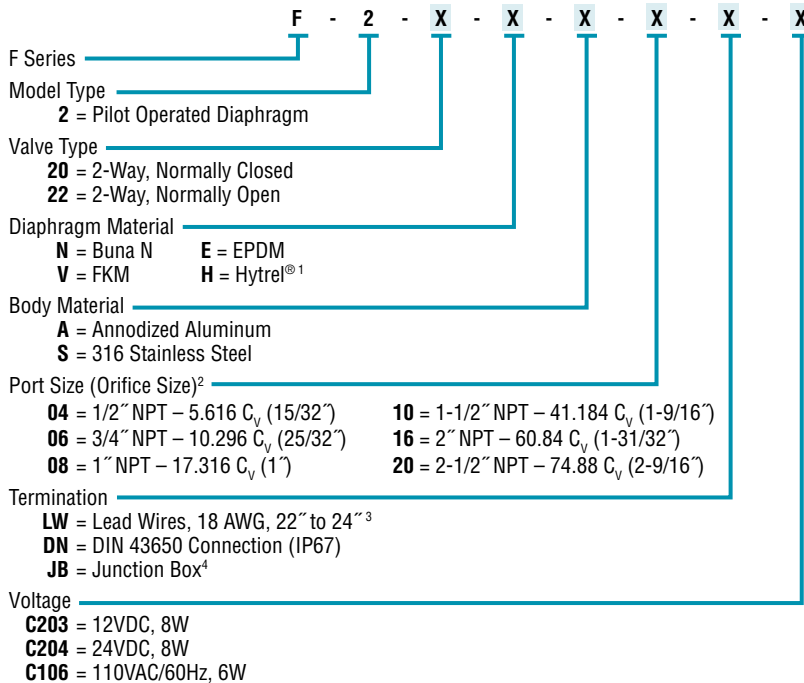
LPG, CNG, Air, Inert Gases, Water, Free Flowing Liquid, Oil, Diesel, Kerosene

Specifications

Wetted Parts	
Body Material	316 Stainless Steel, CF8M
Guide Assembly	304 Stainless Steel
Plunger, Insert	430 Stainless Steel
Spring	302 Stainless Steel
Seals	See Below
Pressure Range	7 to 145 psi (0.5 to 10 bar)
Fluid / Ambient Temperature	41°F to 176°F (5°C to 80°C)
Expected Life (cycles)	>2 Million

How To Order

Example: F-2-20-V-S-06-DN-C203



Normally Closed

Note: Dimensional drawings available. Contact Gems.

Notes:

1. Hytrel® must be selected for port sizes of 2" or greater.
2. 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.
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.

SOLENOID VALVES

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 10⁻⁷ psi (10⁻⁶ 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

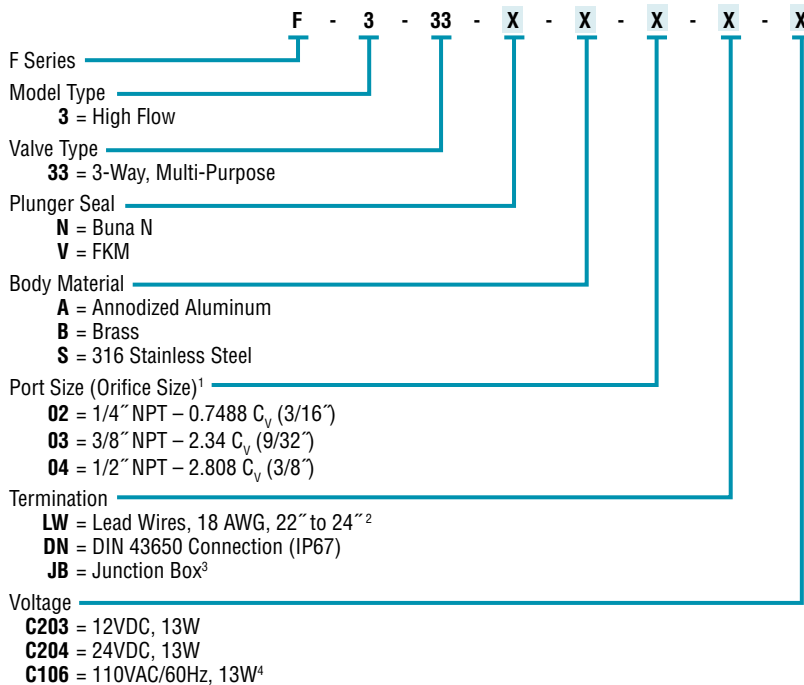
LPG, Air, Inert Gases, Water, Vacuum, Free Flowing Liquid, Oil, Diesel, Kerosene

Specifications

Wetted Parts	
Body Material	316 Stainless Steel
Guide Assembly	304 Stainless Steel
Plunger, Insert	430 Stainless Steel
Spring	302 Stainless Steel
Seals	See Below
Pressure Range	0 to 232 psi (0 to 16 bar)
Fluid / Ambient Temperature	-40°F to +176°F (-20°C to +80°C)
Expected Life (cycles)	>10 Million

How To Order

Example: F-3-33-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.

F Series – Model 4

High Pressure, 2-Way, Direct Acting

- ▶ Normally Open
- ▶ 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

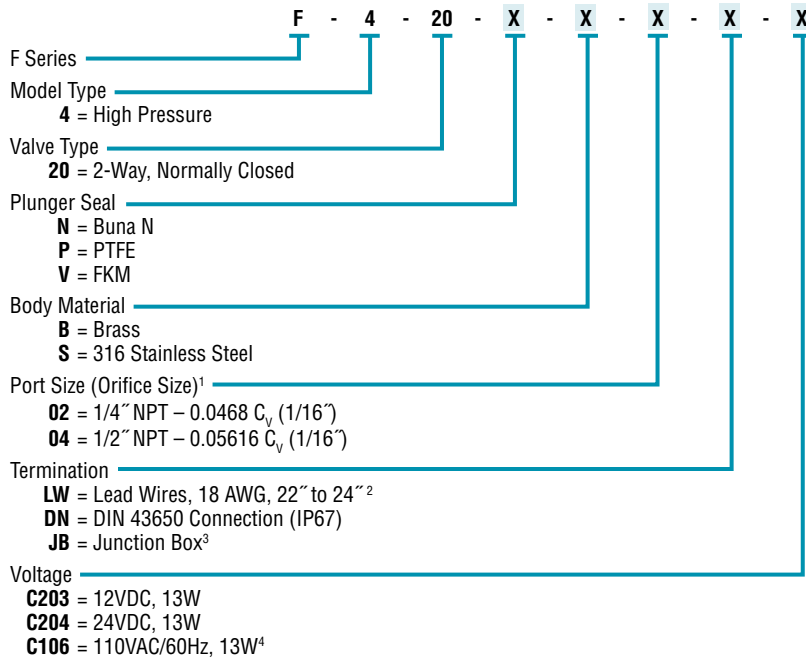
LPG, CNG, Oil, Diesel, Kerosene, Air, Inert Gases, Water, Free Flowing Liquid

Specifications

Wetted Parts	
Body Material	316 Stainless Steel
Guide Assembly	304 Stainless Steel
Plunger, Insert	430 Stainless Steel
Spring	302 Stainless Steel
Seals	See Below
Pressure Range	0 to 5802 psi (0 to 400 bar)
Fluid / Ambient Temperature	-40°F to +176°F (-20°C to +80°C)
Expected Life (cycles)	>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.

SOLENOID VALVES