# P4100 Fuel Gas Control Valve

The BelGAS^CP P4100 series is a pneumatically operated control valve, designed to withstand severely corrosive mediums associated with the oil and gas industry.

## Applications

- Low Pressure Separators/Compression Scrubbers
- Line Heaters
- Control Valve for Burner Systems

## Features

- **Simple Maintenance:** The valve trim can be quickly changed without removing the valve from the line. Simply loosen the bolts to lift the bonnet and housing free of the body.

- **Body Pressure Monitoring Tap Options:** Multiple monitoring tap options are available. Choose the orientation that fits your application. Choose between untapped, output side tapped, supply and output side tapped, or the standard option, supply side only tapped. See figure 3.

- **Signal (Pilot) Port Orientation Option:** The P4100 also includes additional signal pilot customization for your application needs. Choose the standard option or any one of three additional options. See figure 3 to decide the orientation needed.

## Specifications

| | |
|---|---|
| Inlet Pressure Rating | 300 PSIG (Max) |
| Temperature Range | -20° to 200°F (-29° to 93°C) |
| Air Pressure to Signal (Pilot) | 0-30 PSIG Recommended |

## Materials of Construction

| Part | Material |
|---|---|
| Body | Cast Ductile Iron |
| Diaphragm | Nitrile |
| Gaskets | Tealon TF |
| Housing | Cast Ductile Iron |
| Main Spring | Stainless Steel |
| Seat | Polyurethane |
| Stem | Stainless Steel |
| Trim/Orifice | Stainless Steel |

## Dimensional Data (in.)

| Valve Size | A | | B | | C | | D | | Approx. Weight |
|---|---|---|---|---|---|---|---|---|---|
| | in. | mm | in. | mm | in. | mm | in. | mm | |
| 1" NPT Ports | 4.38 | 111 | 3.25 | 83 | 3.27 | 83.5 | 1.13 | 29 | 5.00 lbs. (2.27 kg) |

Figure 1
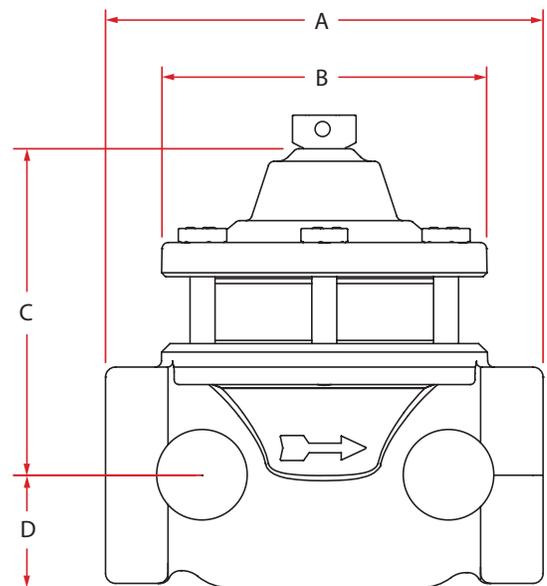
Dimensional breakdown of exterior features
(Note: 1/8" NPT signal port not shown)

# P4100 Parts List & Repair Kits

Figure 2



Detail A

Figure 3



Signal Port Orientation Options

Pressure Monitor Body Tap Options
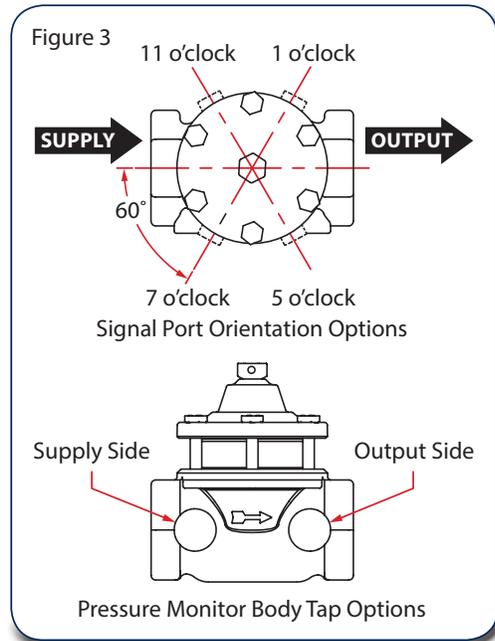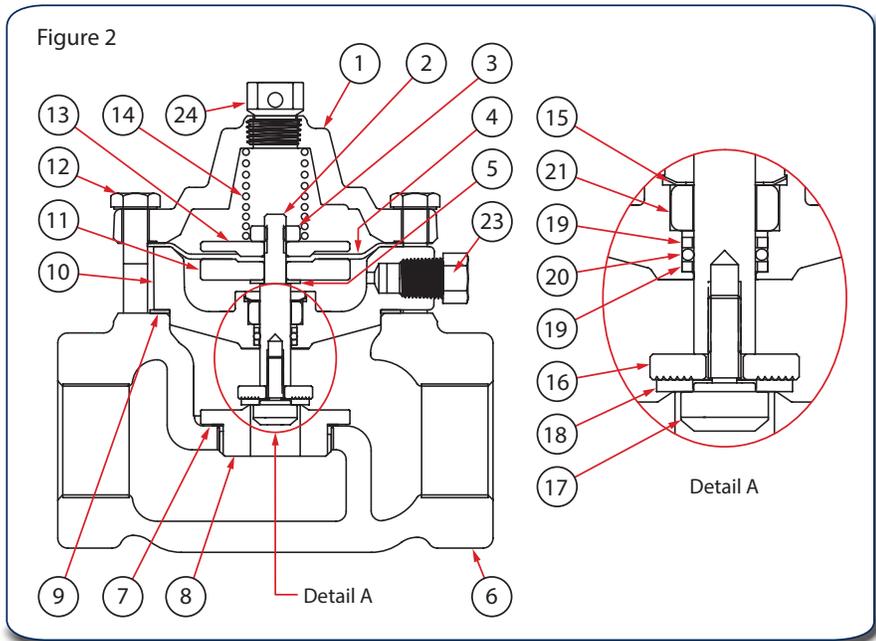
| Item | Description | Qty. | Part Number |
|------|-------------|------|-------------|
| 1 | Bonnet | 1 | 604-272-000 |
| 2 | Stem | 1 | 689-019-000 |
| 3 | Nut | 1 | 634-477-000 |
| 4 | Diaphragm | 1 | 600-518-000 |
| 5 | Stem Gasket | 1 | 624-105-000 |
| 6 | Body | 1 | 624-440-XXX |
| 7 | Orifice Gasket | 1 | 624-104-000 |
| 8 | Orifice | 1 | 688-069-000K |
| 9 | Housing Gasket | 1 | 624-103-000 |
| 10 | Housing | 1 | 629-257-000 |
| 11 | Lower Plate | 1 | 638-088-000 |
| 12 | Screws | 6 | 603-011-001 |
| 13 | Upper Plate | 1 | 637-339-000 |
| 14 | Spring | 1 | 655-785-000 |
| 15 | Retaining Ring | 1 | 644-057-000 |
| 16 | Disc | 1 | 619-071-000 |
| 17 | Ratio Plug | 1 | 643-225-000 |
| 18 | Seat | 1 | 650-195-000 |
| 19 | Back-up Ring | 2 | 649-340-000 |
| 20 | O-ring | 1 | 649-000-004 |
| 21 | Bushing | 1 | 608-087-000 |
| 23 | Plug | 1 | 673-028-000 |
| 24 | Breather Plug | 1 | 639-144-000 |
| 25 | Plug, 1/4" NPT | 1 | 639-099-000 |
| 26 | 1" NPT Cap Plug (Not Shown) | 2 | 610-060-001 |
| 27 | 1/8" NPT Cap Plug (Not Shown) | 1 | 639-000-003 |

## P4100 Part Number Matrix

| | P41 | 00 | 08 | 0 | 0 | 0 | K | 0 | 0 | S | 8 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Body Size** | | | | | | | | | | | |
| 1" NPT | | | 08 | | | | | | | | |
| **Body Material** | | | | | | | | | | | |
| Ductile Iron | | | | 0 | | | | | | | |
| **Signal Port Orientation** | | | | | | | | | | | |
| 1 o'clock | | | | | | | G | | | | |
| 5 o'clock | | | | | | | H | | | | |
| 7 o'clock | | | | | | | J | | | | |
| 11 o'clock (Standard) | | | | | | | K | | | | |
| **Configuration (Pressure Monitoring Body Tap)** | | | | | | | | | | | |
| Untapped | | | | | | | | | | U | |
| Supply Side Only (Standard) | | | | | | | | | | S | |
| Both Supply and Output | | | | | | | | | | V | |
| Output Side Only | | | | | | | | | | W | |
| **Trim Size (Orifice)** | | | | | | | | | | | |
| 0.5" | | | | | | | | | | | 8 |

| Repair Kits | | |
|-------------|------|-------------|
| **Description** | **Qty.** | **Part Number** |
| General Repair Kit | 1 | 971-P41-000 |
| Housing O-ring / Bushing Kit | | 971-P41-001 |
| Housing / Stem Replacement Kit | | 971-P41-002 |

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