

# JRDL Series

## Gas Pressure Reducing Valves

### PRESSURE REGULATING VALVE

The LowFlow JRDL Series line of diaphragm sensed, high pressure regulators have the ability to handle very high pressures and very low flows. These valves are typically used in applications such as high pressure gas, water seal regulation, air compressors, gas chromatography and more.

#### Features:

- Barstock construction guarantees material integrity and surface finish
- High flow rate coupled with high rangeability reduces need for reduced trim sizes
- Optimized internal volume
- Soft seat material for ANSI Class VI shutoff

#### Product Highlights

- Ability to reduce high inlet pressures from 1-400 psig in one valve
- Provides superior sensitivity in pressure regulation to the 'piston' operated JRPL, and has a CV that's nearly 10x greater than the 0.2 CV in the JR
- Sizes available: ½", ¾", 1"
- Diaphragm Sensed- Buna, EPDM, and Viton options

#### Applications

- High Pressure Gas
- Liquid Pump Systems Control
- Water Seal Regulation
- Hyperbaric Chambers
- Air Compressors
- Pressurized Ballast Tanks
- Gas Transfer Systems
- Gas Chromatography
- Flame Ionization



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**JRDL SERIES SPECIFICATIONS**

**Line Size:** 1/2", 3/4" & 1" (DN15, DN20 & DN25)

**End Connections**

- Threaded
- Socket Weld
- Flanged

**Soft Seat Materials for ANSI Class VI Shut-off**

- Buna-N to + 200°F (93°C)
- EPDM to + 240°F (143°C)
- Viton to + 450°F (232°C)

**Body Material**

- 316L SST - Standard
- Contact factory for other body / trim / seat materials

**Diaphragm Material:** Buna-N / EPDM / Viton

**Maximum Inlet Pressure:** 1000 psi (69 bar) @ -20°F (-28,9°C)

**Flow Capacity:** Cv 1.7 (1,46 Kv)

**Maximum Pressure Drop:** 1000 psi (69 bar)

**Spring Ranges:**

- 0 – 50 psi (0,00 – 3,4 bar)
- 0 – 100 psi (0,00 – 6,9 bar)
- 0 – 200 psi (0,00 – 13,8 bar)
- 0 – 400 psi (0,00 – 27,6 bar)

**Options**

- Panel Mounting
- Captured Vent
- Locking Wire
- Tamper Proof
- Lockout Device

**OPTIONS & DEFINITIONS**

**Panel Mount** The panel mount feature utilizes a threaded spring housing and a panel mount ring to secure the regulator to an instrument panel. This option requires a 2" panel cut out.

**Captured Vent** The captured vent design provides maximum safety for the user when handling toxic or hazardous media. It features a 1/8" FNPT port located on the spring housing. The user can easily tube this vent to a safe location. This option can be incorporated into a self-relieving regulator that provides an additional port to permit the safe expulsion of hazardous media.

**Locking Wire** The locking wire option utilizes a lead sealed metal wire to physically hold the adjusting screw in place to prevent any unwanted set point changes.

**Tamper Proof** The tamper proof option replaces the standard adjusting knob with a stainless steel acorn nut.

**Lockout Device** The lockout device is a 2 piece polypropylene enclosure which encapsulates the adjustment knob and prevents unwanted set point changes. The part number required for this valve is 26971. (Lock not included)

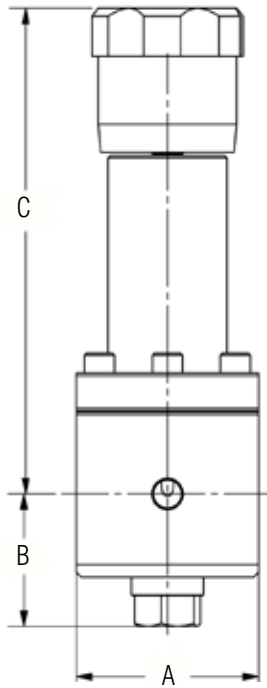
**JRDL SIZING**

1. Use the "LVCV Sizing Software" link found on the [www.lowflowvalve.com](http://www.lowflowvalve.com) home page and navigate to LowFlow valve sizing.
2. Use the software to size for flow using the listed CV of the valve and the customer's application conditions.
3. The JRDL is rated from 30% to 70% of the flow value using LVCV.

### JRDL FEATURES & BENEFITS



**JRDL SERIES DIMENSIONS**



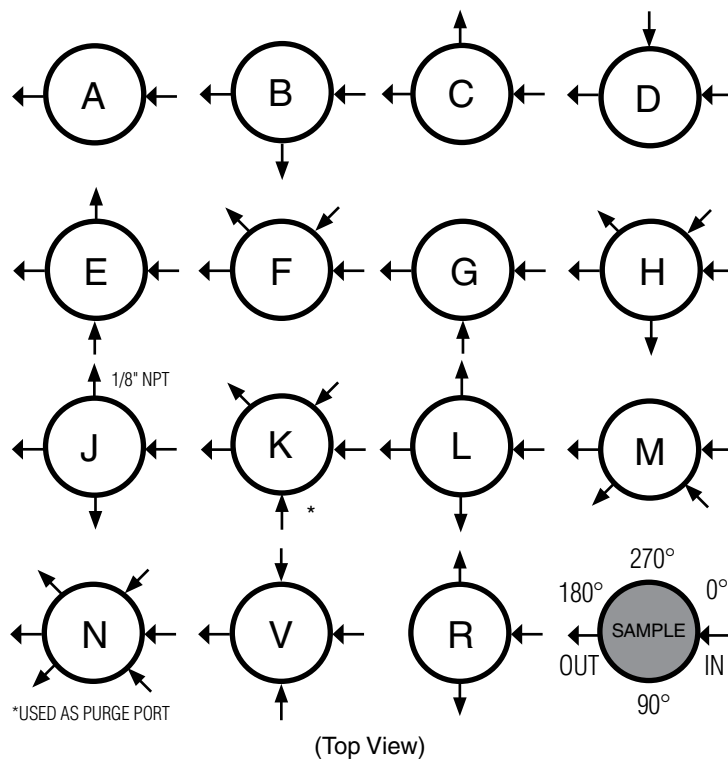
• **JRDL Series, Inches**

| VALVE SIZE | DIMENSIONS, INCHES |     |     | WEIGHT, LBS |
|------------|--------------------|-----|-----|-------------|
|            | A                  | B   | C   |             |
| 1/2"       | 2.8                | 2.1 | 7.5 | 7.5         |
| 3/4"       | 3.2                | 1.8 | 7.5 | 9.6         |
| 1"         | 3.2                | 1.8 | 7.5 | 9.5         |

• **JRDL Series, Metric**

| VALVE SIZE | DIMENSIONS, MM |      |       | WEIGHT, KGS |
|------------|----------------|------|-------|-------------|
|            | A              | B    | C     |             |
| DN15       | 71.1           | 53.3 | 190.5 | 3.40        |
| DN20       | 81.3           | 45.7 | 190.5 | 4.35        |
| DN25       | 81.3           | 45.7 | 190.5 | 4.31        |

**JRDL SERIES FLOW CONFIGURATIONS**



## JRDL SERIES ORDERING SCHEMATIC

| Model | Size | Material | 1 & 2 | 3 & 4 | 5 & 6 | 7 & 8 | 9 & 10 | 11 & 12 | 13 & 14 | 15 | 16 | 17 |
|-------|------|----------|-------|-------|-------|-------|--------|---------|---------|----|----|----|
| —     | —    | —        | /     |       |       |       |        |         |         |    |    |    |

| Model |           |
|-------|-----------|
| JRDL  | Low Range |

| Size |             |
|------|-------------|
| 050  | 1/2" (DN15) |
| 075  | 3/4" (DN20) |
| 100  | 1" (DN25)   |

| Material |                      |
|----------|----------------------|
| 6L       | Stainless Steel 316L |

| 1 & 2          | Body Feature       |              |
|----------------|--------------------|--------------|
| End Connection | Port Configuration |              |
| C              | FNPT 1/2"          | A Port "A"   |
| D              | FNPT 3/4"          | B Port "B"   |
| E              | FNPT 1"            | C Port "C"   |
| F              | BSPP 1/2"          | D Port "D"   |
| G              | BSPP 3/4"          | E Port "E"   |
|                |                    | G Port "G"   |
|                |                    | H Port "H"   |
|                |                    | J Port "J"   |
|                |                    | K Port "K"   |
|                |                    | L Port "L"   |
|                |                    | M Port "M"   |
|                |                    | N Port "N"   |
|                |                    | V Port "V"   |
|                |                    | R Port "R"   |
| H              | BSPP 1"            |              |
| ZZ             |                    | Non-Standard |

| 3 & 4 | Trim         |
|-------|--------------|
| BB    | Buna-N       |
| EE    | EPDM         |
| VV    | Viton        |
| ZZ    | Non-Standard |

| 5 & 6 | Seat         |
|-------|--------------|
| BB    | Buna-N       |
| EE    | EPDM         |
| VV    | Viton        |
| ZZ    | Non-Standard |

| 7 & 8 | Range Spring/Outlet Pressure |
|-------|------------------------------|
| E1    | 0 - 50 PSI                   |
| E2    | 0 - 100 PSI                  |
| E3    | 0 - 200 PSI                  |
| E4    | 0 - 400 PSI                  |
| ZZ    | Non-Standard                 |

| 9 & 10 | Diaphragm    |
|--------|--------------|
| BB     | Buna-N       |
| EE     | EPDM         |
| VV     | Viton        |
| ZZ     | Non-Standard |

| 11 & 12 | Actuator     |
|---------|--------------|
| SK      | Standard     |
| PM      | Panel Mount  |
| TP      | Tamper Proof |
| ZZ      | Non-Standard |

| 13 & 14 | Inlet Gauge               |
|---------|---------------------------|
| HH      | 0 - 600 PSIG/BAR (Dual)   |
| JJ      | 0 - 1000 PSIG /BAR (Dual) |
| KK      | 0 - 2000 PSIG/BAR (Dual)  |
| NN      | None                      |
| ZZ      | Non-Standard              |

\* Customer assumes all responsibility for possible damage or injury if selected gauge span does not fully cover range spring / outlet pressure option

| 15 | Outlet Gauge            |
|----|-------------------------|
| B  | 0 - 60 PSIG/BAR (DUAL)  |
| C  | 0 - 100 PSIG/BAR (DUAL) |
| D  | 0 - 160 PSIG/BAR (DUAL) |
| E  | 0 - 200 PSIG/BAR (DUAL) |
| F  | 0 - 300 PSIG/BAR (DUAL) |
| G  | 0 - 400 PSIG/BAR (DUAL) |
| H  | 0 - 600 PSIG/BAR (DUAL) |
| N  | None                    |
| Z  | Non-Standard            |

\* Customer assumes all responsibility for possible damage or injury if selected gauge span does not fully cover range spring / outlet pressure option

## JRDL SERIES ORDERING SCHEMATIC

| Model | Size | Material | 1 & 2 | 3 & 4 | 5 & 6 | 7 & 8 | 9 & 10 | 11 & 12 | 13 & 14 | 15 | 16 | 17 |
|-------|------|----------|-------|-------|-------|-------|--------|---------|---------|----|----|----|
|       | —    | —        |       |       |       |       |        |         |         |    |    |    |

| 16 | SEP Compliance |
|----|----------------|
| G  | SEP Compliant  |
| 0  | None           |
| Z  | Non-Standard   |

| 17 | Accessories        |
|----|--------------------|
| S  | Clean for Oil Free |
| X  | Clean for Oxygen   |
| 0  | None               |
| Z  | Non-Standard       |



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LowFlow Valve reserves the right to make revisions to its product, specifications, literature and related information without notice. Please visit our website at [www.lowflowvalve.com](http://www.lowflowvalve.com) for the latest information on our products.

