

# 5050DL SERIES

High Flow, Dome Loaded  
Pressure Reducing Regulators



Premier 5050DL Series dome loaded, single stage, high flow, diaphragm sensed, pressure reducing regulators, designed for inlet pressures up to 1000 PSIG (*68.95 bar*), and Cv 5.0. The 5050DL features a 1:1 dome load with a max load pressure of 100 PSIG (*6.89 bar*). Balanced stem design significantly reduces supply pressure effect.

## FEATURES

- Flow capacity (Cv): 5.0
- 1000 PSIG (*68.95 bar*) max inlet pressure
- Balanced stem for increased outlet pressure stability
- Diaphragm sensed
- 1:1 dome load
- Economical pricing
- Compact size
- Non-venting
- Machined bar stock body eliminates porosity found in castings

**SOME APPLICATIONS WILL REQUIRE A CUSTOM SOLUTION.**  
CONTACT PREMIER INDUSTRIES TO REQUEST A MODIFICATION  
OR A CUSTOM DESIGN.

## SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
  - 1000 PSIG (68.95 bar)
- **OUTLET PRESSURE RANGE:**
  - 0-100 PSIG (0-6.89 bar)
- **MAX DOME LOAD:** 110 PSIG (7.58 bar)
- **LOAD RATIO:** 1:1\*\*  
*\*\* an additional 3-5 psig dome load is required to maintain a 1:1 outlet pressure to dome load ratio.*
- **FLOW (Cv):** 5.0

## MATERIALS OF CONSTRUCTION

- **BODY, BONNET, BACK CAP:**
  - 316 Stainless Steel
  - 303 Stainless Steel
  - 6061-T6 Aluminum, Clear Anodize
- **DIAPHRAGM:**
  - Buna-N
  - Viton-A
- **DIAPHRAGM PLATE:**
  - 316 Stainless Steel
- **MAIN VALVE SEAT:**
  - Buna-N
  - Viton-A
- **MAIN VALVE:**
  - 316 Stainless Steel
- **O-RINGS:**
  - Buna-N
  - Viton-A
- **STANDARD LUBRICANT:**
  - Krytox GPL 206

## PORTING

- **INLET/OUTLET:**
  - 1" FNPT
  - 3/4" FNPT
- **DOMES LOAD PORT:**
  - 1/4" FNPT

## OPTIONS

- Private labeling
- Dome loaded bias design
- Spring loaded design
- Air loaded design

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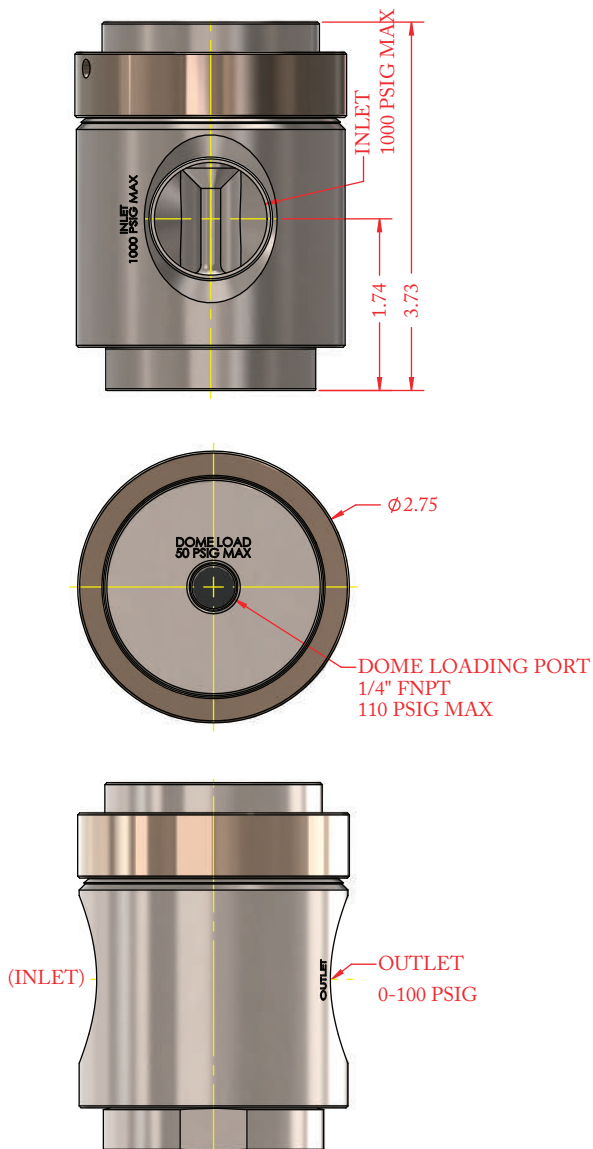
*Contact factory for material certifications. Fees may apply.*

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PART NUMBER: 50-12456



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| PART #   | - | 1 | 2 | 3 | - | MODS |
|----------|---|---|---|---|---|------|
| 50-12456 | - |   |   |   | - |      |

| 1 | BODY/BONNET/BACK CAP MATERIAL / FINISH               |
|---|------------------------------------------------------|
| 1 | 6061-T6 Aluminum,<br><i>Clear Anodize</i>            |
| 2 | 303 Stainless Steel,<br><i>Cleaned per spec #515</i> |
| 3 | 316 Stainless Steel,<br><i>Cleaned per spec #515</i> |
| 2 | SEAT/SEAL/DIAPHRAGM MATERIAL                         |
| 0 | Buna-N                                               |
| 1 | Viton-A                                              |
| 3 | PORTING                                              |
| 1 | 1" FNPT                                              |
| 2 | 3/4" FNPT                                            |

| MODIFICATIONS |                  |
|---------------|------------------|
| BLANK         | NONE             |
| AC            | KRYTOX 240AC     |
| ES            | EXTERNAL SENSING |

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