

5050PDL SERIES

Dome Loaded, Piston Sensed, High Flow
Pressure Reducing Regulators



The Premier 5050PDL Series is a dome loaded, single stage, high flow, piston sensed pressure reducing regulator rated for inlet and outlet pressures up to 1500 PSIG (103.4 BAR) with a Cv of 5.0.

The dome loaded design allows remotely adjustable outlet pressure control for automated pressure control systems. A 1:1 dome-load ratio, with a maximum dome load pressure of 1510 PSIG (104.1 BAR), supports direct dome-to-outlet pressure control. A balanced stem design reduces supply pressure effect, while the piston sensed design supports repeatable operation in high-pressure, high-flow applications.

FEATURES

- High flow capacity, Cv 5.0
- 1500 PSIG (103.4 BAR) max inlet/outlet pressure
- Balanced stem for increased outlet pressure stability
- Piston sensed
- 1:1 dome load ratio
- 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:**
 - 1500 PSIG (103.4 BAR)
- **OUTLET PRESSURE RANGE:**
 - 0-1500 PSIG (0-103.4 BAR)
- **MAX DOME LOAD:**
 - 1510 PSIG MAX (104.1 BAR)
- **LOAD RATIO: 1:1****
***AN ADDITIONAL 4-8 PSIG (0.28-0.55 BAR)
DOME LOAD IS REQUIRED TO MAINTAIN
1:1 DOME LOAD RATIO.*
- **FLOW (CV):**
 - 5.0 MAX

MATERIALS OF CONSTRUCTION

- **BODY, BONNET, BACK CAP:**
 - 316 Stainless Steel
 - 303 Stainless Steel
 - 6061-T6 Aluminum, Clear Anodize
- **PISTON:**
 - SAE 360 Brass
(aluminum body)
 - 303 Stainless Steel
(303 Stainless Steel body)
 - 316 Stainless Steel
(316 Stainless Steel body)
- **MAIN VALVE:**
 - 316 Stainless Steel
- **MAIN VALVE SPRING:**
 - 316 Stainless Steel
- **O-RING SEALS/SEAT OPTIONS:**
 - Buna-N seals, Buna-N seat
 - Viton® seals, Viton seat
 - EPDM seals, EPDM seat
 - FFKM seals, PTFE seat
 - Polyurethane seals, polyurethane seat

PORTING

- **INLET/OUTLET PORT OPTIONS:**
 - 1/2" FNPT
 - 3/4" FNPT
 - 1" FNPT (STANDARD)
 - 1" SAE AS5202
- **OPTIONAL GAUGE PORT:**
 - 1/4" FNPT
- **DOME LOAD PORT:**
 - 1/4" FNPT
- **OPTIONAL EXTERNAL SENSING PORT:**
 - 1/4" FNPT

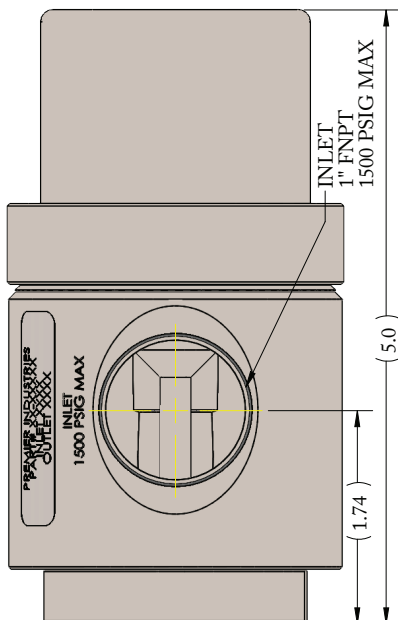
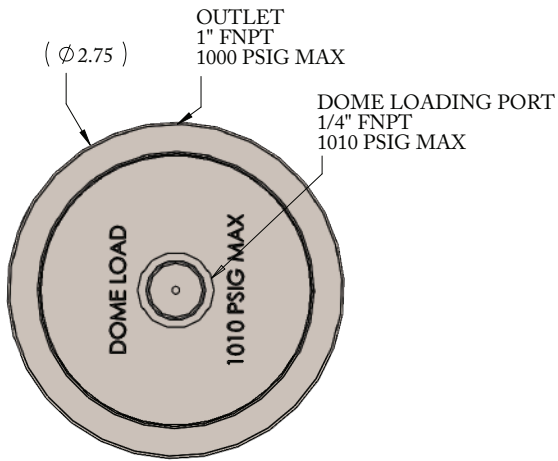
OPTIONS

- Private labeling
- Mounting bracket

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PART NUMBER: 50-12858

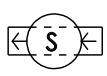
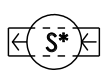
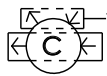
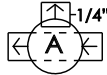
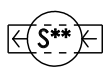
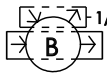

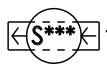


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PART NUMBER	-	1	2	3
50-12858	-			

1	BODY/BONNET/BACK CAP MATERIAL <i>AND FINISH</i>
1	303 STAINLESS STEEL, <i>CLEANED PER SPEC #515</i>
2	316 STAINLESS STEEL, <i>CLEANED PER SPEC #515</i>
3	6061-T6 ALUMINUM, <i>CLEAR ANODIZE</i>
2	SEAL/SEAT MATERIAL
0	BUNA-N SEALS BUNA-N SEAT
1	VITON-A SEALS VITON-A SEAT
5	FKM SEALS PTFE SEAT
6	EPDM SEALS EPDM SEAT
7	POLYURETHANE SEALS POLYURETHANE SEAT

3	PORTING
1	 1" NPT
2	 3/4" NPT
3	 1/4" NPT 1" NPT
4	 1/4" NPT 1" NPT
5	 1/2" NPT
6	 1/4" NPT 1" NPT
7	 1/4" NPT 1/2" NPT
8	 1" AS5202

4	GAUGES
0	NO GAUGES
1	INCLUDE GAUGES (N/A ON S/S*/S**/S***)
MODIFICATIONS	
BLANK	NONE
B	ADDITIVELY MANUFACTURED MOUNTING BRACKET
E	EXTERNAL SENSING PORT

EXTERNAL SENSING

