

# 6000 SERIES

Hydraulic, High Pressure  
Pressure Reducing Regulators



Premier 6000 Series pressure reducing regulators are hydraulic, piston sensed regulators rated for inlet and outlet pressures up to 10000 PSIG (689 BAR). The piston sensed design delivers stable pressure control, consistent performance, and long service life across a wide range of operating conditions.

6000 Series regulators are available with multiple inlet and outlet configurations and a range of flow coefficients ( $C_v = 0.06, 0.12, 0.20, \text{ or } 0.30$ ), allowing the regulator to be configured for a broad range of flow rates and control requirements. An adjustable, captured vent allows vented fluid to be piped away from the regulator.

Materials of construction may be selected to ensure compatibility with a wide range of non-corrosive and corrosive fluids, based on application requirements.

## FEATURES

- Piston Sensed
- Pressure ratings up to 10000 PSIG (689 BAR)
- Captured venting
- Machined bar stock body, bonnet and piston eliminates porosity found in castings
- $C_v = 0.06, 0.12, 0.20, \text{ or } 0.30$
- Multiple mounting options available
- NACE MR0175 compatible materials are available

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

## SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
  - 10000 PSIG (689.5 Bar)
- **CONTROL PRESSURE RANGES:**
  - 0-200 PSIG (0-13.8 Bar)
  - 5-500 PSIG (0.35-34.5 Bar)
  - 5-800 PSIG (0.35-55.2 Bar)
  - 10-1500 PSIG (0.69-103.4 Bar)
  - 15-2500 PSIG (1.0-172.4 Bar)
  - 25-4000 PSIG (1.7-275.8 Bar)
  - 50-6000 PSIG (3.4-413.7 Bar)
  - 100-10000 PSIG (6.9-689.5 Bar)
- **FLOW CAPACITY**
  - **Main Valve Cv:** 0.06, 0.12, 0.20, or 0.30
  - **Vent Valve Cv:** 0.06
- **DESIGN PROOF PRESSURE:**
  - 150% maximum rated
- **OPERATING TEMPERATURE:\*\***
  - -15°F/-26°C to 165°F/74°C (BUNA-N)
  - -4°F/-20°C to 165°F/74°C (Viton®)
  - -65°F/-54°C to 165°F/74°C (EPDM)
  - 0°F/-17°C to 165°F/74°C (KALREZ®)
  - 15°F/-9°C to 165°F/74°C (ALFAS)
  - -50°F/-45°C to 165°F/74°C (Nitrile, Lo-temp)

## MATERIALS OF CONSTRUCTION

- **BODY:** 316 Stainless Steel (*standard*)
- **BONNET:** 17-4 Stainless Steel
- **PISTON:**
  - 316 Stainless Steel
- **VENT/MAIN VALVE STEM:**
  - 17-4 Stainless Steel, hardened
- **VALVE SEAT:**
  - 17-4 Stainless Steel, hardened (*standard*)
  - Vespel® (*optional*)
- **VENT VALVE SEAT:**
  - 316 Stainless Steel
- **WETTED, OTHER:**
  - 316 Stainless Steel & 17-4 Stainless Steel
- **WETTED, NACE COMPLIANT:**
  - 316 Stainless Steel, A286, & Elgiloy®
- **SEAL OPTIONS:**
  - Viton®
  - Buna-N
  - EPDM
  - AFLAS®
  - Nitrile (Lo-Temp)
  - FFKM *Contact factory for pricing*
- **BACK-UP RINGS:**
  - PTFE & PCTFE
- **STANDARD LUBRICANT:**
  - Krytox® GPL 206

## PORTING

- **INLET & OUTLET PORT OPTIONS:**
  - 1/4" FNPT, SAE J1926, SAE AS5202\*\*, or medium pressure
  - 3/8" FNPT, SAE J1926, SAE AS5202\*\*, or medium pressure
  - 1/2" FNPT, SAE J1926, SAE AS5202\*\*
  - 9/16" medium pressure
- **VENT PORT:**
  - 1/4" FNPT, SAE J1926, SAE AS5202\*\*, or medium pressure
- **GAUGE PORTS:** 1/4" FNPT

\*\*SAE AS5202 supersedes MS33649

## OPTIONAL ITEMS

- Panel mounting bracket: P/N: 30-10059 (Ø2.15 panel hole)
- Panel mounting nuts: P/N: 30-10189 (Ø2.28 panel hole)
- Gauges
- Private label
- Non-venting

Krytox® is a registered trademark of The Chemours Company FC, LLC.

AFLAS® is a registered trademark of the Asahi Glass Co., Ltd.

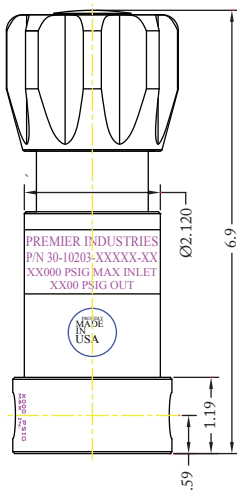
Viton® and Vespel® are registered trademarks of E.I. du Pont de Nemours and Company.

Elgiloy® is a registered trademark of Elgiloy Specialty Metals Division, Combined Metals of Chicago LLC (*Contact factory for FFKM pricing*)

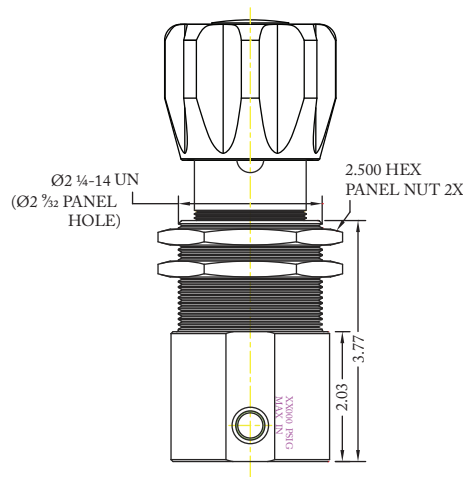
\*\*For extended temperature ranges please contact Premier Industries. Above temperature ranges will apply to the majority of media for which the material is recommended. Temperature ranges can vary with some media, ALWAYS TEST UNDER SERVICE

**PART NUMBER: 30-10203**

**PANEL MOUNTING  
BRACKET STYLE**

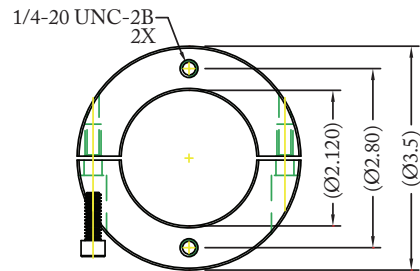


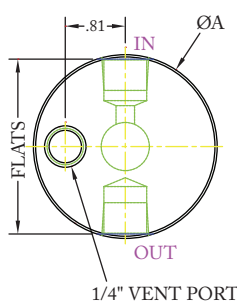
**PANEL NUT  
STYLE**



**OPTIONAL PANEL  
MOUNTING BRACKET**

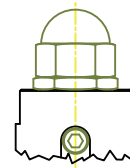
*PART NUMBER: 30-10059*



	PORT TYPE	ØA	FLATS
	NPT,	Ø2.48	—
1/4" OTHER	Ø2.48	2.36	
1/4" & 3/8" SAE	Ø2.98	2.81	
3/8" M.P.	Ø2.98	2.81	
1/2" SAE	Ø3.23	2.98	
9.16" M.P.	Ø3.23	2.98	

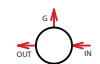



*\*BODIES W/ 'L' PORTING CONFIGURATIONS AND 3/8" PORTS AND LARGER REQUIRE A LARGER ØA*

**OPTIONAL  
ACORN NUT**



PART #	1	2	-	3	4	5	6	7	-	8	9	-	MODS
30-10203			-						-			-	

1 2	MOUNTING STYLE
<b>MB</b>	MOUNTING BRACKET STYLE BODY
<b>PN</b>	PANEL NUT STYLE BODY <i>(PANEL NUTS INCLUDED)</i>
3	OUTLET PRESSURE
<b>0</b>	0-200 PSIG <i>(0-13.8 BAR)</i>
<b>1</b>	5-500 PSIG <i>(0.34-34.5 BAR)</i>
<b>2</b>	5-800 PSIG <i>(0.34-55.2 BAR)</i>
<b>3</b>	10-1500 PSIG <i>(0.69-103.4 BAR)</i>
<b>4</b>	15-2500 PSIG <i>(1.0-172.4 BAR)</i>
<b>5</b>	25-4000 PSIG <i>(1.7-275.8 BAR)</i>
<b>6</b>	50-6000 PSIG <i>(3.4-413.7 BAR)</i>
<b>7</b>	100-10000 PSIG <i>(6.9-689.5 BAR)</i> <i>(STAINLESS STEEL ONLY)</i>
4	MAIN VALVE Cv
<b>0</b>	Cv 0.06
<b>1</b>	Cv 0.12
<b>2</b>	Cv 0.20
<b>3</b>	Cv 0.30
<i>VENT VALVE Cv: 0.06</i>	

5	PORTING CONFIG.
<b>A</b>	
<b>C</b>	
<b>L*</b>	
<b>S</b>	
<i>*L PORTING CONFIGURATIONS WITH 3/8" PORTS AND LARGER REQUIRE A LARGER BODY DIAMETER</i>	
6	PORT SIZE
<b>4</b>	1/4"
<b>6</b>	3/8"
<b>8</b>	1/2"***
<b>9</b>	9/16"***
<i>**1/2" PORTS NOT AVAILABLE IN MEDIUM PRESSURE</i>	
<i>**9/16" PORTS ONLY AVAILABLE IN MEDIUM PRESSURE</i>	
<b>GAUGE PORTS:</b> <i>1/4" FNPT</i>	
<b>VENT PORT:</b> <i>1/4" INLET/OUTLET PORT TYPE</i>	

7	PORT TYPE IN/OUT/VENT
<b>1</b>	FNPT
<b>2</b>	SAE J1926
<b>3</b>	SAE AS5202 <i>(MS33649**)</i>
<b>4</b>	MEDIUM PRESSURE
<i>**SAE AS5202 SUPERSEDES MS33649</i>	
8 9	O-RINGS
<b>00</b>	BUNA-N
<b>01</b>	AFLAS®
<b>02</b>	VITON®
<b>05</b>	EPDM
<b>11</b>	FFKM <i>(CONTACT FACTORY FOR PRICING)</i>
<b>12</b>	NITRILE, LO-TEMP

MODIFICATIONS	
<i>Separate multiple mods with a dash</i>	
<b>BLANK</b>	NONE
<b>AC</b>	KRYTOX® 240AC
<b>ANT</b>	ACORN NUT
<b>HT</b>	HIGH TEMP. <i>(O-RING MAX TEMP)</i>
<b>N</b>	NACE MR0175/ ISO 15156-2:2009 COMPATIBLE
<b>NV</b>	NON-VENTING
<b>PTU</b>	PORT TYPE UNIFORM
<b>SM</b>	SURFACE MOUNT
<b>V</b>	VESPEL® SEAT

*10000 PSIG MAX INLET: THE END USER IS RESPONSIBLE TO ENSURE ADEQUATE FITTINGS ARE USED TO CONNECT REGULATOR TO PLUMBING.*

*CONTACT FACTORY FOR MATERIAL CERTIFICATIONS. FEES MAY APPLY.*

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*CONTACT FACTORY FOR MATERIAL CERTIFICATIONS. FEES MAY APPLY.*