

O2 3000AL SERIES

Air Loaded, High Pressure, Oxygen
Pressure Reducing Regulators



O2 Premier 3000AL Series air-loaded, piston-sensed, single-stage pressure reducing regulators are designed for high-pressure oxygen service. Available in SAE 360 brass or Monel construction, these regulators accommodate maximum inlet pressures up to 10000 PSIG (689.5 BAR) in Monel and 6000 PSIG (413.7 BAR) in brass and . Five flow capacities are available with Cv values of 0.04, 0.06, 0.12, 0.20, and 0.30 to meet a wide range of application requirements.

The O2 Premier 3000AL Series is available with a variety of inlet and outlet connection options for installation flexibility. Captured venting is standard for enhanced safety and compatibility with oxygen systems.

FEATURES

- 20 micron sintered bronze inlet filter
- Compatible with electro pneumatic controllers
- Captured venting
- Very competitive pricing
- Machined bar stock body, bonnet and piston eliminates porosity found in castings
- Numerous optional features are available.

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

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SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
 - SAE 360 BRASS REGULATOR:
6000 PSIG* (413.69 BAR)
**DEPENDENT UPON CONFIGURATION*
 - MONEL® REGULATOR:
10000 PSIG* (689.5 BAR)
**DEPENDENT UPON CONFIGURATION*
 - AIR ACTUATOR: 110 PSIG (7.5 BAR)
- **CONTROL PRESSURE RANGES:**
 - 6-600 PSIG (0.41-41.37 BAR)
DIAMETER: 1.500"
AREA: 1.7672 IN²
RATIO: $\frac{7}{1}$ **
 - 10-1500 PSIG (0.69 - 103.42 BAR)
DIAMETER: 1.000"
AREA: 0.7854 IN²
RATIO: $\frac{16}{1}$ **
 - 15-2500 PSIG (1.03 - 172.37 BAR)
DIAMETER: 0.750"
AREA: 0.4418 IN²
RATIO: $\frac{28}{1}$ **
 - 50-6000 PSIG (3.45 - 413.69 BAR)
DIAMETER: 0.500"
AREA: 0.1964 IN²
RATIO: $\frac{64}{1}$ **

**** 4.0" DIAMETER DIAPHRAGM**
DIAPHRAGM AREA: 12.5664 IN²

- **FLOW (CV):**
 - 0.04 (P/N: OY30-10219 ONLY)
 - 0.06
 - 0.12
 - 0.20
 - 0.30
- **VENT VALVE (CV):** 0.06
- **AMBIENT OPERATING TEMPERATURES:**
 - -4°F/-20°C TO 212°F/100°C (VITON®)

VESPEL® AND VITON-A® ARE REGISTERED
TRADEMARKS OF E.I. DUPONT DE NEMOURS AND
COMPANY

MONEL® IS A REGISTERED TRADEMARK OF SPECIAL
METALS CORPORATION

CONTACT FACTORY FOR MATERIAL CERTIFICATIONS.
FEES MAY APPLY.

MATERIALS OF CONSTRUCTION

- **BODY OPTIONS:**
 - SAE 360 BRASS
 - MONEL® (OY30-11419 ONLY)
- **HOUSING, AIR ACTUATOR:**
 - 6061-T6 ALUMINUM/CLEAR ANODIZED
- **DIAPHRAGM, AIR ACTUATOR:**
 - NEOPRENE, NYLON FABRIC-REINFORCED
- **OTHER AIR ACTUATOR COMPONENTS:**
 - 303 STAINLESS STEEL & STEEL
- **MAIN VALVE:** MONEL® 400 & K-500
- **MAIN VALVE SEAT:** PCTFE OR VESPEL® SP-21
- **ELASTOMER SEALS:**
- **VENT VALVE SEAT:** VESPEL® SP-21
- **ELASTOMER SEALS:**
 - VITON-A®
 - FFKM
- **BACK-UP RINGS:**
 - PTFE & PCTFE
- **OTHER WETTED PARTS:**
 - MONEL®
 - SAE 360 BRASS
- **ALL WETTED COMPONENTS:**
 - CLEANED PER SPEC 615, CGA G-4.1

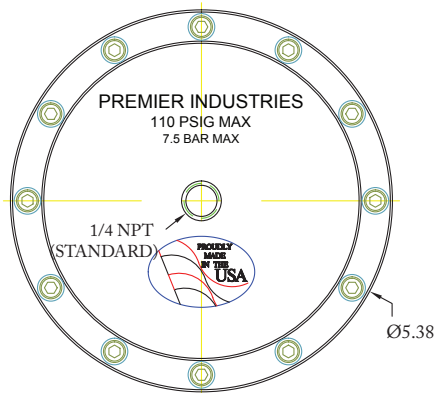
PORTING

- **INLET/OUTLET PORT OPTIONS**
 - SEE SELECTION CHARTS ON PAGES 4 AND 5
- **AIR ACTUATOR PORT OPTIONS:**
 - 1/4" FNPT (STANDARD)
 - 1/8" FNPT
 - 1/4" SAE AS5202
 - 1/4" SAE J1926
- **VENT:** 1/4" NPT

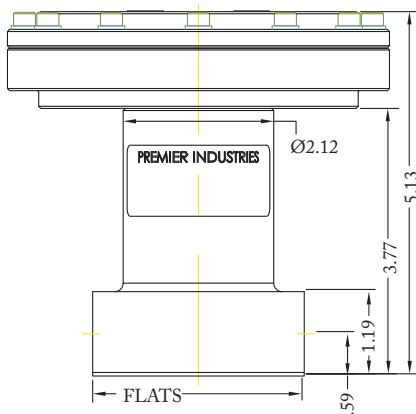
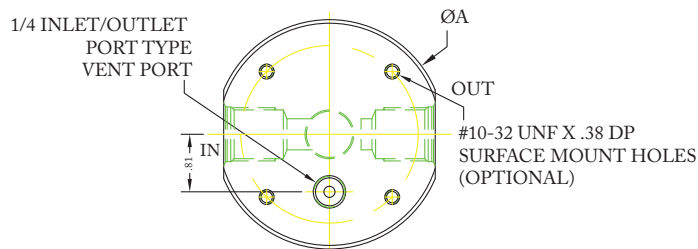
OPTIONAL ITEMS

- Non-venting design
- Panel mounting bracket:
 - For OY30-10219: P/N 30-10059 (fits Ø2.15 in. panel cutout)
 - For OY30-11419: P/N 30-10500 (fits Ø2.53 in. panel cutout)
- Private label

PART NUMBER: Oy30-10219

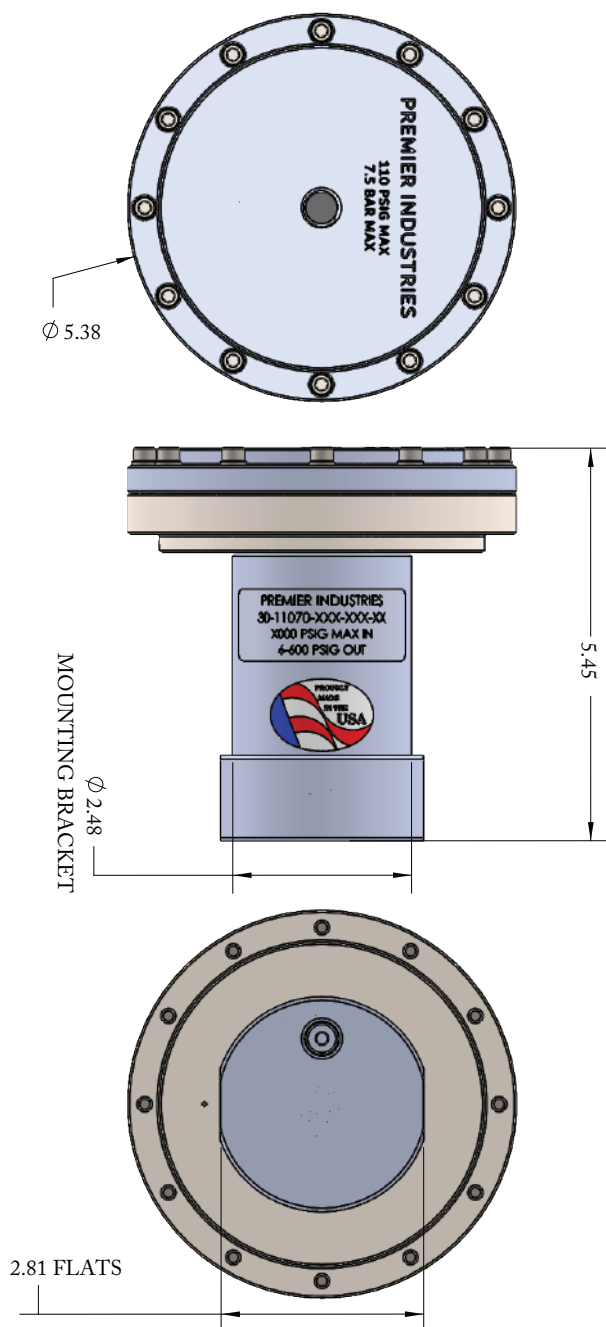


REGULATOR BODY TABLE		
PORT SIZE & TYPE	ØA	FLATS
NPT	Ø2.98	—
1/4" & 3/8" SAE	Ø2.98	2.81
1/2" SAE	Ø3.23	2.98
3/8" & LARGER 'L' CONFIGURATION BODIES REQUIRE A LARGER ØA		



PART NUMBER: Oy30-11419

Increased sensitivity for low outlet pressure applications

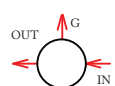
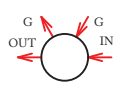
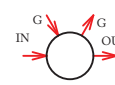
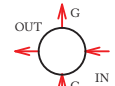
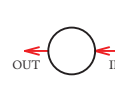


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SERIES	-	1	2	3	4	5	-	6 7	-	MODS
Oy30-10219	-						-		-	

1	OUTLET PRESSURE	
3	10-1500 PSIG (0.69-103.4 BAR)	DIAMETER: 1.000" AREA: 0.7854 IN ² RATIO: ¹⁶ / ₁ *
4	15-2500 PSIG (1.0-172.4 BAR)	DIAMETER: 0.750" AREA: 0.4418 IN ² RATIO: ²⁸ / ₁ *
6	50-6000 PSIG (3.4-413.7 BAR)	DIAMETER: 0.500" AREA: 0.1964 IN ² RATIO: ⁶⁴ / ₁ *
<i>* 4.0" DLAMETER DIAPHRAGM DLAPHRAGM AREA: 12.5664 IN²</i>		
2	FLOW (Cv)	
A	Cv 0.04 (6000 PSIG MAX, PCTFE SEAT)	
0	Cv 0.06 (6000 PSIG MAX, PCTFE SEAT)	
1	Cv 0.12 (6000 PSIG MAX, PCTFE SEAT)	
2	Cv 0.2 (4000 PSIG MAX, PCTFE SEAT)	
3	Cv 0.3 (4000 PSIG MAX, PCTFE SEAT)	
6	Cv 0.2 (6000 PSIG MAX, VESPEL SP-21 SEAT)	
7	Cv 0.3 (6000 PSIG MAX, VESPEL SP-21 SEAT)	
<i>VENT VALVE: Cv 0.06</i>		

3	PORTING CONFIG.
A	
C	
D	
L	
S	
4	PORT SIZE (INLET/OUTLET)
4	1/4"
6	3/8"
8	1/2"***
GAUGE PORTS: 1/4" FNPT UNLESS PORT TYPE UNIFORM MODIFIER IS SPECIFIED	
VENT PORT: 1/4" INLET/OUTLET PORT TYPE	
LOAD PORT: 1/4" FNPT (UNLESS OTHERWISE SPECIFIED)	

5	PORT TYPE (INLET/OUTLET/VENT)
1	FNPT
2	SAE J1926
3	SAE AS5202
6 7	O-RINGS
02	VITON-A®
11	FFKM
MODIFICATIONS SEPARATE MULTIPLE MODS WITH A DASH	
BLANK	NONE
AC	KRYTOX 240AC
AS	1/4" SAE AS5202 LOADER PORT
E	1/8" NPT AIR LOADER PORT
J	1/4" SAE J1926 LOADER PORT
NV	NON-VENTING
PTU	PORT TYPE UNIFORM
SM	SURFACE MOUNT

6000 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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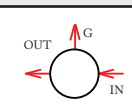
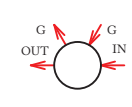
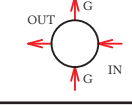
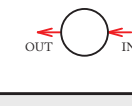
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SERIES	-	1	2	3	4	5	6	-	7 8	-	MODS
Oy30-11419	-							-		-	

**INCREASED SENSITIVITY
FOR LOW OUTLET PRESSURE
APPLICATIONS**

1	OUTLET PRESSURE
1	SAE 360 BRASS 6000 PSIG (413.69 BAR) MAX
2	MONEL 10000 PSIG (689.5 BAR) MAX
2	OUTLET PRESSURE
3	6-600 PSIG (0.41-41.37 BAR)
3	RATING
0	0.06 Cv, PCTFE SEAT 6000 PSIG (413.69 BAR) MAX
1	0.12 Cv, PCTFE SEAT 6000 PSIG (413.69 BAR) MAX
2	0.20 Cv, PCTFE SEAT 4000 PSIG (275.8 BAR) MAX
3	0.30 Cv, PCTFE SEAT 4000 PSIG (275.8 BAR) MAX
4	0.06 Cv, VESPEL SP-1 SEAT 10000 PSIG (689.5 BAR) MAX
5	0.12 Cv, VESPEL SP-1 SEAT 10000 PSIG (689.5 BAR) MAX
6	0.20 Cv, VESPEL SP-1 SEAT 10000 PSIG (689.5 BAR) MAX
7	0.30 Cv, VESPEL SP-1 SEAT 6000 PSIG (413.69 BAR) MAX

4	PORTING CONFIG.
A	
C	
L	
S	
5	PORT SIZE (INLET/OUTLET)
4	1/4"
6	3/8"
8	1/2"***
9	9/16"***
GAUGE PORTS: 1/4" FNPT VENT PORT: 1/4" INLET/OUTLET PORT TYPE LOAD PORT: 1/4" FNPT (UNLESS OTHERWISE SPECIFIED) <i>*1/2" NOT AVAILABLE IN MEDIUM PRESSURE OR HIGH PRESSURE</i> <i>**9/16" AVAILABLE IN MEDIUM PRESSURE ONLY</i>	

6	PORT TYPE (INLET/OUTLET/VENT)
1	FNPT
2	SAE J1926
3	SAE AS5202
4	MEDIUM PRESSURE
5	HIGH PRESSURE
7 8	O-RINGS
02	VITON-A®
11	FFKM
MODIFICATIONS SEPARATE MULTIPLE MODS WITH A DASH	
BLANK	NONE
AC	KRYTOX 240AC
AS	1/4" SAE AS5202 LOADER PORT
E	1/8" NPT AIR LOADER PORT
J	1/4" SAE J1926 LOADER PORT
NV	NON-VENTING

6000 PSIG MAX INLET (SAE 360 BRASS)
10000 PSIG MAX INLET (MONEL)
THE END USER IS RESPONSIBLE TO ENSURE
ADEQUATE FITTINGS ARE USED TO
CONNECT REGULATOR TO PLUMBING.

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