

O2 3016 SERIES

High Pressure, High Flow
Pressure Reducing Regulators



Premier O2 3016 Series regulators are high pressure high flow, piston sensed, pressure reducing regulators rated for inlet pressures up to 10000 psig / 689.5 bar (*dependent upon configuration*), and (Cv) 1.0 or 2.0. Premier O2 3016 series regulators feature a balanced stem design for increased outlet pressure stability.

Premier O2 3016 Series regulators are designed for use in Oxygen applications; they are available with a wide range of inlet and outlet configurations. Captured-venting and non-venting models are available.

FEATURES

- Designed for use with Oxygen
- Non-venting and captured venting models available
- Balanced stem for increased outlet pressure stability
- High flow capacity (Cv): 1.0 or 2.0
- Piston sensed
- Great sensitivity
- Optional gauge ports
- 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:**
 - P/N: Oy30-10216:
 - PCTFE SEAT: 4000 PSIG MAX / 275.8 BAR
 - BRASS, Cv 2.0: 4000 PSIG MAX / 275.8 BAR
 - BRASS, Cv 1.0: 6000 PSIG MAX / 413.7 BAR
 - MONEL, Cv 2.0: 6000 PSIG MAX / 413.7 BAR
 - MONEL, Cv 1.0: 10000 PSIG MAX / 689.5 BAR
 - P/N: Oy30-10228: 4000 PSIG MAX
 - P/N: Oy30-10225: 4000 PSIG MAX
 - MONEL, Cv 1.0: 10000 PSIG MAX / 689.5 BAR
 - BRASS, Cv 1.0: 6000 PSIG MAX / 413.7 BAR
 - PCTFE SEAT: 4000 PSIG MAX / 275.8 BAR
- **CONTROL PRESSURE RANGES:**
 - 0-300 PSIG (0-20.7 bar)
 - 0-500 PSIG (0-34.5 bar)
 - 0-1000 PSIG (0-68.9 bar)
 - 10-1500 PSIG (0.7-103.4 bar)
 - 15-2500 PSIG (1.0-172.4 bar)
 - 25-4000 PSIG (1.7-275.8 bar)
 - 50-6000 PSIG (3.5-413.7 bar) **
 - 100-10000 PSIG (6.9-413.7 bar) **

***P/N: 30 10216 and 30-10225 ONLY*
See selection tables on pages 5 and 7 for more details
- **FLOW (Cv):** 1.0 or 2.0
- **OPERATING TEMPERATURE:**
 - -4°F/-20°C to 165°F/74°C (Viton®)

MATERIALS OF CONSTRUCTION

- **BODY OPTIONS:**
 - Monel® 400 (P/N: Oy30-10216 or 30-10225)
 - SAE 360 Brass
- **MAIN VALVE SEAT:**
 - P/N: Oy30-10216:
 - Vespel® SP-21
 - PCTFE (4000 PSIG MAX)
 - P/N: Oy30-10228:
 - PCTFE
 - P/N: Oy30-10225:
 - Vespel® SP-21
 - PCTFE (4000 PSIG MAX)
- **BACK-UP RINGS:**
 - P/N Oy30-10216: PTFE
 - P/N Oy30-10228: PTFE or PCTFE
 - P/N Oy30-10225: PTFE or PCTFE
- **O-RING MATERIAL OPTIONS:**
 - Viton®
 - FFKM (contact Premier for pricing)
- **OTHER WETTED PARTS:**
 - P/N Oy30-10216: Monel® 400 or SAE 360 Brass
 - P/N Oy30-10228: Monel®
 - P/N Oy30-10225: Monel®
- **STANDARD LUBRICANT:**
 - Krytox GPL 206

PORTING

- **INLET & OUTLET OPTIONS:**
 - See selection tables on on pgs 4 and 5
- **OPTIONAL GAUGE PORT(S):** 1/4" FNPT
- **VENT PORT:** 1/4" FNPT (P/N: Oy30-10228 only)

OPTIONS

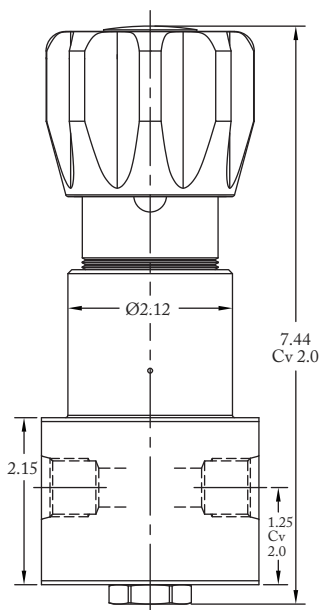
- Private label
- Tamper resistant acorn nut
- Low torque ball-bearing loader
- Surface mount

Contact factory for material certifications. Fees may apply.

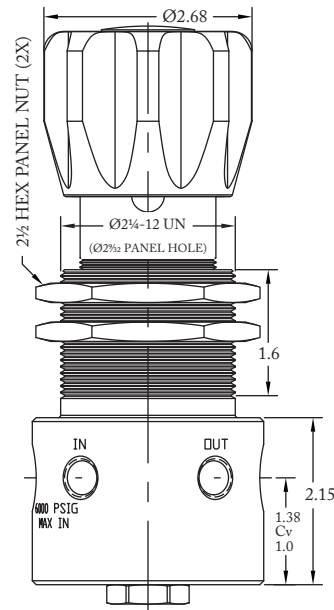
Viton®, and Vespel® are registered trademarks of
E.I.duPont de Nemours & Company.

PART NUMBER: Oy30-10216

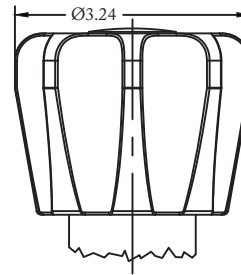
PANEL MOUNTING



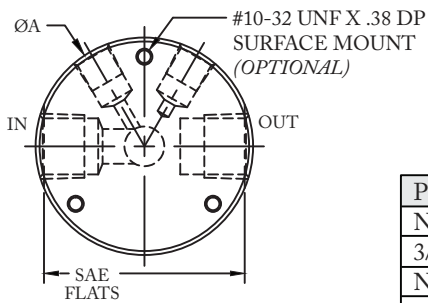
PANEL NUT STYLE



**BALL-BEARING
HAND KNOB
(OPTIONAL)**



**TAMPER RESISTANT
ACORN NUT
(OPTIONAL)**



*Surface mounting holes
Pattern dependent on
port size, type, and
configuration*

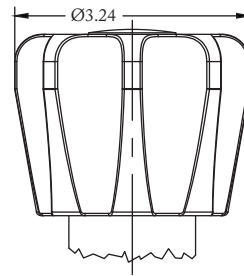
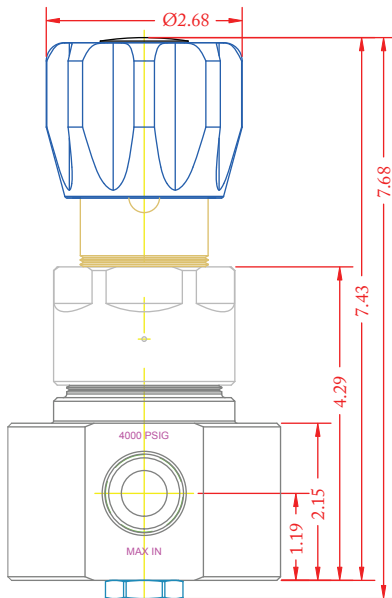
PORT TYPE	ØA	FLATS
NPT Cv 1.0	Ø2.73	—
3/4" NPT Cv 1.0	Ø2.98	—
NPT Cv 2.0	Ø2.98	—
1/4" AS5202	Ø2.98	2.80
3/8" & 1/2" J1926	Ø2.98	2.80
3/8" & 1/2" AS5202	Ø3.23	3.05
3/4" J1926	Ø3.73	3.36
3/4" AS5202	Ø3.98	3.72

O2 3016 SERIES

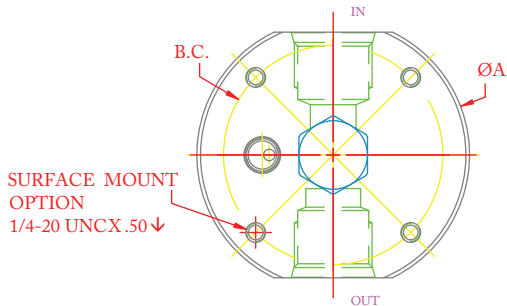
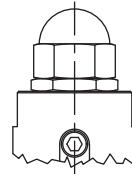
High Pressure, High Flow
Pressure Reducing Regulators

PART NUMBER: Oy30-10228

**BALL-BEARING
HAND KNOB
(OPTIONAL)**



**TAMPER RESISTANT
ACORN NUT
(OPTIONAL)**



PORT TYPE	ØA	FLATS	B.C.
NPT	Ø2.98	—	Ø2.50
1/2" SAE	Ø3.23	3.05	Ø2.63
3/4" J1926	Ø3.73	3.36	Ø3.00
3/4" AS5202	Ø3.98	3.72	Ø3.00

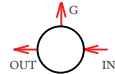
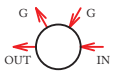
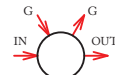
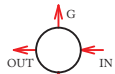
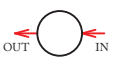
O2 3016 SERIES

High Pressure, High Flow
Pressure Reducing Regulators

PART #	1	2	-	3	4	5	6	7	-	8	9	-	10	-	MODS
Oy30-10216			-						-			-		-	

**NON-VENTING, Cv 1.0 or 2.0
VESPEL® SP-21 SEAT (STANDARD)**

1 2	MOUNTING STYLE
MB	MOUNTING BRACKET STYLE BODY
PN	PANEL NUT STYLE BODY <i>(PANEL NUTS INCLUDED)</i>
3	BODY/BONNET MATERIALS <i>(MAX. INLET PRESSURE)</i>
1	SAE 360 BRASS BODY & BONNET <i>(CV 1.0, 6000 PSIG / 413.7 BAR) (CV 2.0, 4000 PSIG / 275.8 BAR)</i>
4	Monel 400® BODY & BONNET <i>(CV 1.0, 10000 PSIG / 689.5 BAR) (CV 2.0, 6000 PSIG / 413.7 BAR)</i>
4	OUTLET PRESSURE
0	0-300 PSIG <i>(0-20.7 BAR)</i>
1	0-500 PSIG <i>(0-34.5 BAR)</i>
2	0-1000 PSIG <i>(0-68.9 BAR)</i>
3	10-1500 PSIG <i>(0.7-103.4 BAR)</i>
4	15-2500 PSIG <i>(1.0-172.4 BAR)</i>
5	25-4000 PSIG <i>(1.7-275.8 BAR)</i>
6	50-6000 PSIG <i>(3.5-413.7 BAR)</i> <i>(NOT AVAILABLE FOR SAE 360 BRASS, CV 2.0)</i>
7	100-10000 PSIG <i>(6.9-413.7 BAR)</i> <i>(MONEL 400, CV 1.0 OPTION ONLY)</i>

5	PORT CONFIG
A	
C	
D	
L	
S	
6	PORT SIZE <i>(INLET/OUTLET)</i>
4	1/4"
6	3/8"
8	1/2"
T	3/4"
W	1"
GAUGE PORTS: 1/4" FNPT <i>Unless port type uniform (PTU) modifier is specified</i>	

7	PORT TYPE <i>(INLET/OUTLET)</i>
1	FNPT
2	SAE J1926*
3	SAE AS5202*
<i>*SAE NOT AVAILABLE IN ALL SIZES AT 10000 PSIG SAE AS5202 SUPERSEDES MS33649</i>	
8 9	O-RING MATERIAL
02	VITON®
15	KALREZ 4079 <i>(contact factory for pricing)</i>
10	Cv (FLOW)
1	Cv 1.0
2	Cv 2.0
MODIFICATIONS <i>Separate multiple mods with a dash</i>	
BLANK	NONE
AC	KRYTOX 240AC
ANT	ACORN NUT
BBL	BALL-BEARING LOADER
L4	PCTFE SEAT
PTU	PORT TYPE UNIFORM
SM	SURFACE MOUNT

The end user is responsible to ensure adequate fittings are used to connect regulator to plumbing

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

Viton and Kalrez are registered trademark of E.I.duPont de Nemours and Company.

Contact factory for material certifications. Fees may apply.

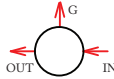
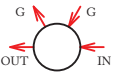
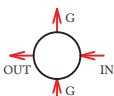

O2 3016 SERIES

High Pressure, High Flow
Pressure Reducing Regulators

PART #	-	1	2	3	4	-	5 6	-	MODS
Oy30-10228	-					-		-	

**CAPTURED VENTING, Cv 2.0, 4000 PSIG MAX
SAE 360 BRASS BODY, PCTFE VALVE SEAT (STANDARD)**

NOTE: This design is not available with panel mounting nuts or a panel mounting bracket. It does have a surface mounting option (see modifications).

1	OUTLET PRESSURE
0	300 PSIG (20.7 BAR)
1	500 PSIG (34.5 BAR)
2	1000 PSIG (68.9 BAR)
3	1500 PSIG (103.4 BAR)
4	2500 PSIG (172.4 BAR)
5	4000 PSIG (275.8 BAR)
2	PORTING CONFIG <i>(gauges optional, sold separately)</i>
A	
C	
L	
S	

3	PORT SIZE <i>(INLET/OUTLET)</i>
8	1/2"
T	3/4"
W	1"
GAUGE PORTS: 1/4" FNPT	
4	PORT TYPE <i>(INLET/OUTLET)</i>
1	FNPT
2	SAE J1926
3	SAE AS5202
5 6	O-RING MATERIAL
02	VITON®
11	FFKM <i>(contact Premier for pricing)</i>

MODIFICATIONS <i>SEPARATE MULTIPLE MODS WITH A DASH</i>	
BLANK	NONE
AC	KRYTOX 240AC
ANT	ACORN NUT
BBL	BALL-BEARING LOADER
PTU	PORT TYPE UNIFORM
SM	SURFACE MOUNT

4000 PSIG MAX INLET
The end user is responsible to ensure adequate fittings are used to connect regulator to plumbing.

Viton® is a registered trademark of E.I. duPont de Nemours and Company.

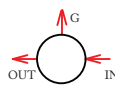
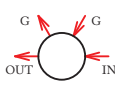
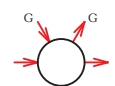
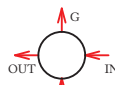
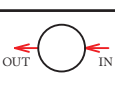
Krytox® is a registered trademark of The Chemours Company FC, LLC.

Contact factory for material certifications. Fees may apply.

PART #	1	2	-	3	4	5	6	7	-	8	9	-	MODS
Oy30-10225			-						-			-	

CAPTURED VENTING, Cv 1.0
SAE 360 BRASS OR MONEL® 400 BODY
VESPEL SP-21 SEAT (STANDARD)

1 2	MOUNTING STYLE
MB	MOUNTING BRACKET STYLE BODY
PN	PANEL NUT STYLE BODY <i>(PANEL NUTS INCLUDED)</i>
3	BODY MATERIAL
B	SAE 360 BRASS BODY <i>6000 PSIG MAX</i>
M	MONEL® 400 BODY <i>10000 PSIG MAX</i>
4	OUTLET PRESSURE
C	150 PSIG (10.3 BAR)
0	300 PSIG (20.7 BAR)
1	500 PSIG (34.5 BAR)
2	1000 PSIG (68.9 BAR)
3	1500 PSIG (103.4 BAR)
4	2500 PSIG (172.4 BAR)
5	4000 PSIG (275.8 BAR)
6	6000 PSIG (413.7 BAR)
7	10000 PSIG (689.5 BAR) <i>(MONEL ONLY)</i>

5	PORTING CONFIGURATION
A	
C	
D	
L	
S	
6	PORT SIZE (INLET/OUTLET)
6	3/8"
8	1/2"
9	9/16" <i>(MEDIUM PRESSURE PORTS ONLY)</i>
GAUGE PORTS: 1/4" FNPT	
VENT PORT: 1/4" INLET/OUTLET PORT TYPE	
7	PORT TYPE (INLET/OUTLET/VENT)
N	FNPT
J	SAE J1926
A	SAE AS5202**
M	MEDIUM PRESSURE <i>(9/16" PORTS ONLY)</i>
**SAE AS5202 SUPERSEDES MS33649	

8 9	O-RINGS
02	VITON®
11	FFKM <i>(CONTACT PREMIER FOR PRICING)</i>
MODIFICATIONS <i>SEPARATE MULTIPLE MODS WITH A DASH</i>	
BLANK	NONE
AC	KRYTOX 240AC
ANT	ACORN NUT
BBL	BALL-BEARING LOADER
L4	PCTFE SEAT <i>4000 PSIG MAX</i>
PTU	PORT TYPE UNIFORM
SM	SURFACE MOUNT*
WA	WRENCH ADJUST
*SURFACE MOUNT HOLES: <i>Pattern dependent on port size, type, and configuration. - not available on panel nut style</i>	

*10000 PSIG MAX INLET (MONEL)
6000 PSIG MAX INLET (SAE 360 BRASS)
The end user is responsible to ensure adequate fittings are used to connect regulator to plumbing*

Viton® is a registered trademark of E.I.duPont de Nemours & Company.

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

Contact factory for material certifications. Fees may apply.

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