

3116 SERIES

High Pressure, High Flow
Back Pressure Regulators



Premier 3116 Series regulators are high pressure, high flow, piston sensed, back pressure regulators rated for inlet pressures up to 10000 psig / 689.5 bar and Cv 0.50, 1.0, or 2.0. Premier 3116 Series regulators are available in a variety of materials for seamless integration into your desired application.

FEATURES

- High flow capacity (Cv): 0.50, 1.0, or 2.0
- Optional surface mount
- 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:**
 - 6000 PSIG / 413.7 BAR
(316 STAINLESS STEEL BODY, STANDARD)
 - 10000 PSIG / 689.48 BAR
(17-4 STAINLESS STEEL BODY)
- **CONTROL PRESSURE RANGES:**
 - 5-500 PSIG (0.34-34.5 BAR)
 - 5-800 PSIG (0.34-55.16 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)
- **FLOW (Cv):** 0.50, 1.0, or 2.0
- **OPERATING TEMPERATURE:****
 - -15°F/-26°C to 212°F/100°C (BUNA-N)
 - -4°F/-20°C to 400°F/204°C (Viton®)
 - -65°F/-54°C to 302°F/150°C (EPDM)

*** Lower temperature compounds available*

PORTING

- **INLET & OUTLET OPTIONS:**
 - 3/8" FNPT, SAE J1926, SAE AS5202, BSPP
 - 1/2" FNPT, SAE J1926, SAE AS5202, BSPP
 - 3/4" FNPT, SAE J1926, SAE AS5202, BSPP
- **GAUGE PORTS:** 1/4" FNPT
SAE AS5202 SUPERSEDES MS33649

OPTIONS

- Private label
- Surface mount
- Krytox® 240AC

MATERIALS OF CONSTRUCTION

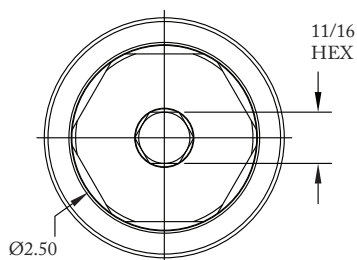
- **BODY OPTIONS:**
 - 316 Stainless Steel (standard)
 - 17-4 Stainless Steel
- **MAIN VALVE STEM:** 17-4 Stainless Steel
- **MAIN VALVE SEAT:** PCTFE or Vespel®
- **BACK-UP RINGS:** PTFE &/or PCTFE
- **O-RING MATERIAL OPTIONS:**
 - BUNA-N
 - Viton-A®
 - EPDM
 - FFKM
- **OTHER WETTED PARTS:**
 - 316 Stainless Steel
 - 17-4 Stainless Steel
- **STANDARD LUBRICANT**
 - Krytox® GPL 206

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

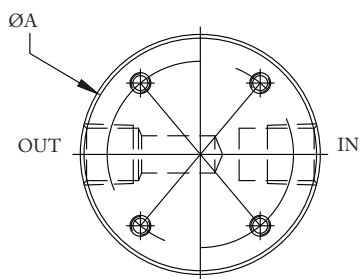
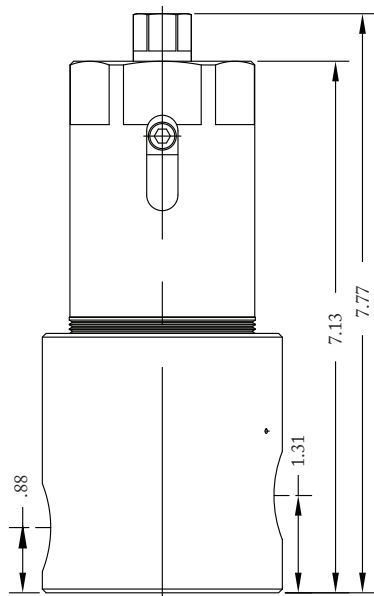
Krytox® is a registered trademark of The Chemours Company FC, LLC.

Contact factory for material certifications. Fees may apply.

PART NUMBER: 30-10222G / 30-11074G



PORT TYPE	ØA	FLATS
NPT	Ø3.23	—
1/2" SAE	Ø3.48	3.32
3/4" SAE	Ø3.98	3.72



1/2" NPT SHOWN

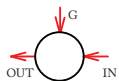
*Optional Surface
mounting holes
1/4-20 UNC X .5 DP
bolt circle subject to body size*

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PART #	-	1	2	3	4	5	-	6 7	-	MODS
30-10222G	-						-		-	

STANDARD: 316 STAINLESS STEEL BODY,
17-4 STAINLESS STEEL BONNET, 6000 PSIG MAX INLET
SEE MODIFICATIONS FOR 10000 PSIG MAX INLET OPTION

1	CONTROL PRESSURE
1	5-500 PSIG (0.34-34.5 BAR)
2	5-800 PSIG (0.34-55.16 BAR)
3	10-1500 PSIG (0.7-103.4 BAR)
4	15-2500 PSIG (1.0-172.4 BAR)
5	25-4000 PSIG (1.7-275.8 BAR)
6	50-6000 PSIG (3.5-413.7 BAR)
2	C _v (FLOW)
1	C _v 1.0
2	C _v 2.0
3	PORT CONFIGURATIONS (FROM TOP)
H	
S	

4	PORT SIZE (INLET/OUTLET)
6	3/8"
8	1/2"
T	3/4"
GAUGE PORTS: 1/4" FNPT	
5	PORT TYPE (INLET/OUTLET)
1	FNPT
2	SAE J1926
3	SAE AS5202*
P	BSPP
<i>*SAE AS5202 supersedes MS33649</i>	
6 7	O-RING MATERIAL
00	BUNA-N
02	VITON®
05	EPDM
11	FFKM

MODIFICATIONS	
BLANK	None
AC	KRYTOX 240AC
SM	SURFACE MOUNT
T	10000 PSIG, 17-4 STAINLESS STEEL CONSTRUCTION

6000 PSIG MAX INLET
(316 STAINLESS STEEL BODY)
10000 PSIG MAX INLET
(17-4 STAINLESS STEEL BODY)

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E.I. DUPONT DE NEMOURS AND COMPANY

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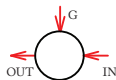
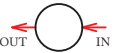
CONTACT FACTORY FOR MATERIAL
CERTIFICATIONS. FEES MAY APPLY.

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PART #	-	1	2	3	4	-	5 6	-	MODS
30-11074G	-					-		-	

Cv 0.50
STANDARD: 316 STAINLESS STEEL BODY,
17-4 STAINLESS STEEL BONNET, 6000 PSIG MAX INLET
SEE MODIFICATIONS FOR 10000 PSIG MAX INLET OPTION

1	CONTROL PRESSURE
1	5-500 PSIG (0.34-34.5 bar)
2	5-800 PSIG (0.34-55.16 bar)
3	10-1500 PSIG (0.7-103.4 bar)
4	15-2500 PSIG (1.0-172.4 bar)
5	25-4000 PSIG (1.7-275.8 Bar)
6	50-6000 PSIG (3.5-413.7 Bar)
2	PORT CONFIGURATIONS (FROM TOP)
H	
S	 (STANDARD)

3	PORT SIZE (INLET/OUTLET)
6	3/8"
8	1/2"
T	3/4"
GAUGE PORTS: 1/4" FNPT	
4	PORT TYPE (INLET/OUTLET)
1	FNPT
2	SAE J1926
3	SAE AS5202*
P	BSPP
*SAE AS5202 SUPERSEDES MS33649	
5 6	O-RING MATERIAL
00	BUNA-N
02	VITON-A®
05	EPDM
11	FFKM

MODIFICATIONS	
Blank	NONE
AC	KRYTOX 240AC
S M	SURFACE MOUNT
T	10000 PSIG, 17-4 STAINLESS STEEL CONSTRUCTION

6000 PSIG MAX INLET
(316 STAINLESS STEEL BODY)
10000 PSIG MAX INLET
(17-4 STAINLESS STEEL BODY)

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