

H2 3023AL SERIES

Air Loaded, High Pressure, Hydrogen
Pressure Reducing Regulators



Hydrogen regulators from the Premier H2 3023AL Series are air loaded, piston sensed, pressure reducing regulators rated for inlet and outlet pressures up to 15000 PSIG (*1034.21 bar*) and Cv of 0.04, 0.06, 0.12, 0.20, or 0.30.

Premier H2 3023AL Series regulators are compatible with electropneumatic controllers, enabling piloted pressure control from an inert gas at low pressures (*110 psig / 7.5 bar max air load*).

H2 3023AL Series regulators are designed for use in Hydrogen applications; they are available with a wide range of outlet and inlet configurations. Captured venting is standard.

FEATURES

- Compatible with electro-pneumatic controllers
- Designed for use with Hydrogen
- 15000 PSIG (*1034.21 bar*) MAX
- Captured venting standard
- Cv 0.04, 0.06, 0.12, 0.20, or 0.30
- Numerous optional features
- Toughmet 3 (C72900) valve actuator stem
- Economical pricing
- Machined bar stock body, bonnet and piston eliminates porosity found in castings

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

SPECIFICATIONS

- **MAX INLET PRESSURE:**
 - REGULATOR: 15000 PSIG (1034.21 bar)
 - AIR ACTUATOR: 110 PSIG (7.5 bar)
- **OUTLET PRESSURE @ 1500 PSIG INLET & Cv 0.5:**
 - 10-1500 PSIG (0.69 - 103.42 bar)
Diameter: 1.000"
Area: 0.7854 in
Ratio: $16/1$ **
 - 15-2500 PSIG (1.03 - 172.37 bar)
Diameter: 0.750"
Area: 0.4418 in
Ratio: $28/1$ **
 - 50-6000 PSIG (3.45 - 413.69 bar)
Diameter: 0.500"
Area: 0.1964 in
Ratio: $64/1$ **
 - 100-10000 PSIG (6.89 - 689.5 bar)
Diameter: 0.375"
Area: 0.1104 in
Ratio: $114/1$ **
 - 300-15000 PSIG (20.68 - 1034.21 bar)
Diameter: 0.312"
Area: 0.0765 in
Ratio: $164/1$ **

*** 4.0" diameter diaphragm
Diaphragm area: 12.5664 in*

- **FLOW (Cv):** 0.04, 0.06, 0.12, 0.20, 0.30
- **VENT VALVE Cv:** 0.06
- **OPERATING TEMPERATURE:**
 - -15°F/-26°C to 212°F/100°C (BUNA-N)
 - -4°F/-20°C to 212°F/100°C (VITON®)

MATERIALS OF CONSTRUCTION

- **BODY:**
 - 316 Stainless Steel
- **VALVE ACTUATOR STEM:**
 - Toughmet 3 (C72900)
- **HOUSING, AIR LOADER:**
 - 6061-T6 Aluminum, Clear Anodized
- **DIAPHRAGM, AIR ACTUATOR:**
 - Neoprene, nylon reinforced
- **WETTED PARTS, OTHER:**
 - 316 Stainless Steel
- **O-RING OPTIONS:**
 - Buna-N
 - Viton®
 - EPDM
- **BACK-UP RINGS:** PTFE, PCTFE
- **MAIN VALVE SEAT/VENT VALVE SEAT:**
 - Vespel®

PORTING

- **INLET/OUTLET PORTING OPTIONS:**
 - 1/4", 3/8" FNPT (standard)
 - 1/4", 3/8", 9/16" Medium Pressure
 - 1/4", 3/8" High Pressure
- **VENT PORT:** 1/4" inlet/outlet port type
- **LOAD PORT:**
 - 1/4" NPT (standard)
 - 1/4" SAE AS5202
 - 1/4" SAE J1926
 - 1/8" NPT

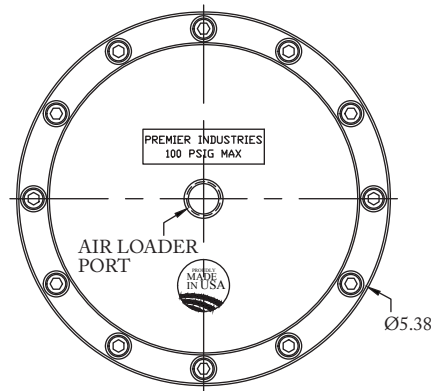
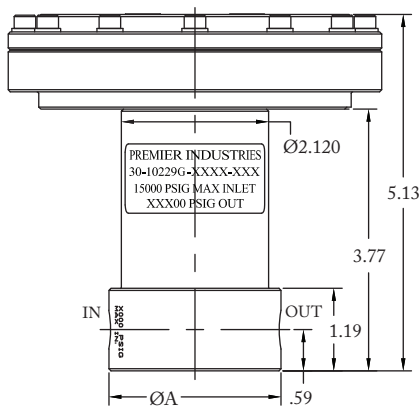
OPTIONS

- Surface mount
- Private label
- Panel mounting bracket: P/N: 30-10059
(Ø2.15 panel hole)

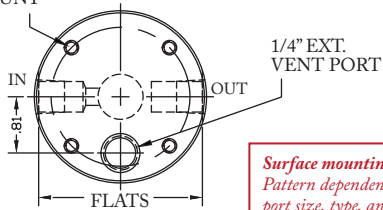
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Contact factory for material certifications. Fees may apply.

PART NUMBER: H30-10229



#10-32 UNF X .38 DP
SURFACE MOUNT
(OPTIONAL)



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

PORT TYPE	ØA	FLATS
NPT	Ø2.48	—
1/4" OTHER	Ø2.48	2.36
3/8" M.P.	Ø2.98	2.81
3/8" H.P.	Ø3.23	2.98
9/16" M.P.	Ø3.23	2.98

PART #	-	1	2	3	4	-	5 6	7	-	MODS
H30-10229	-					-			-	







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 **
7	100-10000 PSIG 6.9-689.5 Bar (stainless steel only)	Diameter: 0.375" Area: 0.1104 in ² Ratio: 114/1 **
8	300-15000 PSIG 20.68-1034.21 Bar (stainless steel only)	Diameter: 0.312" Area: 0.0765 in ² Ratio: 164/1 **
** 4.0" diameter diaphragm Diaphragm area: 12.5664 in ²		

15000 PSIG MAX INLET

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

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2	PORTING CONFIGURATION
A	
C	
D	
E	
L	
S	
3	PORT SIZE
4	1/4"
6	3/8"
9	9/16"*** (Only available in medium pressure)
4	PORT TYPE (1/4" vent port)
1	FNPT (1/4" FNPT)
4	Medium Pressure (1/4" Medium Pressure)
5	High Pressure (1/4" High Pressure)

5 6	O-RINGS
00	BUNA-N
02	VITON-A®
05	EPDM
7	Cv MAIN VALVE (Valve seat material)
A	Cv 0.04 (VESPEL®)
0	Cv 0.06 (VESPEL®)
1	Cv 0.12 (VESPEL®)
2	Cv 0.20 (VESPEL®)
3	Cv 0.30 (VESPEL®)
MODIFICATIONS Separate multiple mods with a dash	
BLANK	None
AS	1/4" SAE AS5202 LOADER PORT
E	1/8" NPT AIR LOADER PORT
J	1/4" SAE J1926 LOADERPORT
NV	NON-VENTING
PTU	PORT TYPE UNIFORM
SM	SURFACE MOUNT