

H2 3000AL SERIES

Air loaded, High Pressure, Hydrogen
Pressure Reducing Regulators



Hydrogen service, air-loaded, piston-sensed, single-stage, high-pressure pressure reducing regulators. Rated for pressures up to 10000 PSIG (689.48 BAR), with available flow coefficients (Cv) of 0.06, 0.12, 0.20, and 0.30.

Designed specifically for hydrogen applications, these regulators are offered in materials selected to resist hydrogen embrittlement and support reliable operation in high-pressure service.

Air-loaded construction allows integration with electro-pneumatic controllers for precise, remote pressure control.

Available in a wide range of pressure ranges, port sizes, and end connections, providing flexibility for system integration.

FEATURES

- Compatible with electro pneumatic controllers
- Designed for use with Hydrogen
- Cv 0.06, 0.12, 0.2, or 0.30
- Outlet pressures up to 10000 PSIG (689.48 bar)
- Captured venting standard, non-venting modification available
- ToughMet® 3 TS Alloy valve actuator stem
- 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.

SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
 - REGULATOR:
 - 10000 PSIG / 689.5 BAR
(316 STAINLESS STEEL)
 - 6000 PSIG / 689.5 BAR
(SAE 360 BRASS)
 - AIR ACTUATOR:
 - 110 PSIG (7.5 BAR)
- **OUTLET PRESSURE RANGES:**
 - 10-1500 PSIG (0.69-03.42 BAR)
 - 15-2500 PSIG (1.03-172.37 BAR)
 - 25-3000 PSIG (1.7-206.84 BAR)
 - 50-6000 PSIG (3.45-413.69 BAR)
 - 100-10000 PSIG (6.89-689.5 BAR)
- **FLOW (CV):** 0.06, 0.12, 0.20, OR 0.30
- **VENT VALVE (CV):** 0.06

MATERIALS OF CONSTRUCTION

- **BODY OPTIONS:**
 - SAE 360 brass
 - 316 Stainless Steel
- **HOUSING, AIR ACTUATOR :**
 - 6061-T6 Aluminum/clear anodized
- **DIAPHRAGM, AIR ACTUATOR :**
 - Neoprene, nylon fabric-reinforced
- **MAIN VALVE SEAT:**
 - Vespel®
- **VENT VALVE SEAT:**
 - Vespel®
- **VALVE ACTUATOR STEM:**
 - ToughMet® 3 TS Alloy
- **ELASTOMER SEAL OPTIONS:**
 - BUNA-N
 - Viton-A®
 - EPDM
 - Nitrile-Butadiene
- **OTHER WETTED PARTS:**
 - 316 Stainless Steel
- **BACK-UP RINGS:**
 - PTFE
 - PCTFE

PORTING

- **INLET/OUTLET**
 - 1/4", 3/8", 1/2" FNPT
 - 1/4", 3/8", 1/2" SAE J1926
 - 1/4", 3/8", 1/2" SAE AS5202 (MS33649**)
 - 1/4", 3/8", 9/16" MEDIUM PRESSURE
 - 1/4", 3/8" HIGH PRESSURE
- **AIR ACTUATOR:**
 - 1/4-18" FNPT (STANDARD)
 - 1/4" SAE AS5202 (MOD)
 - 1/4" SAE J1926 (MOD)
 - 1/8" FNPT (MOD)

OPTIONAL ITEMS

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

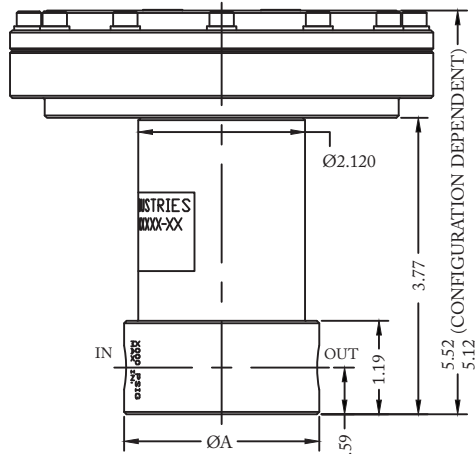
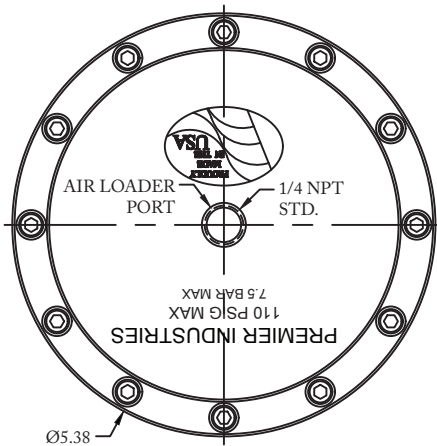
**SAE AS5202 SUPERSEDES MS33649

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

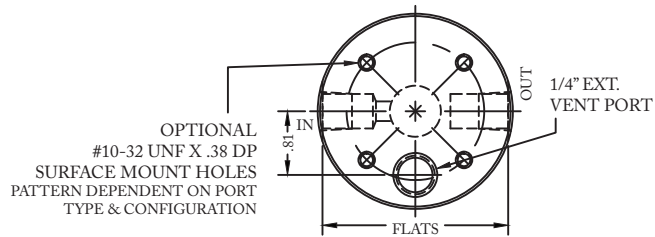
TOUGHMET® IS A REGISTERED TRADEMARK OF
MATERION BRUSH INC.

CONTACT FACTORY FOR MATERIAL CERTIFICATIONS.
FEES MAY APPLY.

PART NUMBER: H30-10219



BODY DIMENSIONS		
PORT TYPE	ØA	FLATS
NPT	Ø2.48	—
1/4" J1926, M.P., H.P.	Ø2.48	2.36
1/4" AS5202	Ø2.98	2.81
3/8" SAE, M.P., H.P.	Ø2.98	2.81
1/2" SAE	Ø3.23	2.98
9/16" M.P.	Ø3.23	2.98
3/8" & LARGER 'L' CONFIGURATION BODIES REQUIRE A LARGER ØA		




DIAPHRAGM TO SENSOR RATIOS		
	AREA	RATIO - CALCULATED
DIAPHRAGM Ø4.0"	12.5664 IN ²	—
SENSOR Ø.375	0.1104 ²	114/1
SENSOR Ø.500	0.1964 ²	64/1
SENSOR Ø.750	0.4418 ²	28/1
SENSOR Ø1.000	0.7854 ²	16/1

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PART #	1	-	2	3	4	5	6	-	7 8	-	MODS
H30-10219		-						-		-	

1	BODY MATERIALS (MAX. INLET PRESSURE)
B	SAE 360 BRASS (6000 PSIG / 413.7 BAR)
BLANK	316 STAINLESS STEEL (10000 PSIG / 689.5 BAR)
2	OUTLET PRESSURE
3	10-1500 PSIG (0.69-103.4 BAR)
4	15-2500 PSIG (1.0-172.4 BAR)
6	50-6000 PSIG (3.4-413.7 BAR)
7	100-10000 PSIG (6.9-689.5 BAR) (STAINLESS STEEL ONLY)
8	25-3000 PSIG (1.7-206.8 BAR)
3	FLOW(Cv) VALVE SEAT MATERIAL
0	Cv 0.06, VESPEL® SP-1
1	Cv 0.12, VESPEL® SP-1
2	Cv 0.2, VESPEL® SCP-5000
3	Cv 0.3, VESPEL® SCP-5000

4	PORTING CONFIGURATION
A	
C	
L	
S	
5	PORT SIZE
4	1/4"
6	3/8"
8	1/2"*
9	9/16"*
<p><i>**1/2" NOT AVAILABLE IN MEDIUM PRESSURE OR HIGH PRESSURE</i> <i>***9/16" ONLY AVAILABLE IN MEDIUM PRESSURE</i></p>	
6	PORT TYPE
1	FNPT
2	SAE J1926
3	SAE AS5202 (MS33649**)
4	MEDIUM PRESSURE
5	HIGH PRESSURE
<p><i>**SAE AS5202 SUPERSEDES MS33649</i></p>	

7 8	O-RING MATERIAL
00	BUNA-N
02	VITON-A®
05	EPDM
13	NITRILE-BUTADIENE <i>Contact factory for pricing</i>
MODIFICATIONS	
<i>Separate multiple mods with a dash</i>	
BLANK	NONE
AS	1/4" SAE AS5202 LOADER PORT
E	1/8" NPT AIR LOADER PORT
J	1/4" SAE J1926 LOADER PORT
NV	NON-VENTING
SM	SURFACE MOUNT

*10000 PSIG MAX INLET (STAINLESS STEEL)
6000 PSIG MAX INLET (BRASS)
THE END USER IS RESPONSIBLE TO ENSURE
ADEQUATE FITTINGS ARE USED TO CONNECT
REGULATOR TO PLUMBING.*

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AND COMPANY*

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CERTIFICATIONS. FEES MAY APPLY.*