

**M1-XXX-PG(H)**  
Adjustable  
Regulator

# Single Stage, Non-Yoke Pressure Regulator



G A S C O N T R O L T E C H N O L O G Y

### MATERIALS OF CONSTRUCTION

DESCRIPTION	Wetted Component	DESCRIPTION
Body	Y	UNS C36000 Brass – Nickel Plated
Bonnet	N	Chrome Plated Zinc
Diaphragm	Y	Fairprene ND-0012
Safety O-ring	Y	Neoprene – 70 Duro
Safety Components	Y	UNS C36000 Brass
Filters	Y	Sintered Porous Bronze, Grades 53 & 68HP
Gauges	Y	Copper Alloy (Brass)
Seats	Y	PCTFE (Neoflon) or PEEK*
Seat Holders	Y	UNS C36000 Brass
Bushings	Y	UNS C36000 Brass
Plungers	Y	UNS C36000 Brass
Anti-vibrator	Y	UNS S30100 SST
Valve Spring	Y	UNS S17700 SST
Valve	Y	UNS C36000 Brass
Valve Ball	Y	UNS S44000 SST
Inlet Nipples	Y	UNS C36000 Brass – Chrome Plated
Hand Tight Tips	Y	PCTFE
Hand Tight Washer	Y	Dupont Zytel 101P
Lubricant	Y	Krytox GPL-206
Pivots	N	Zinc Plated Steel
Delivery and Safety Springs	N	Zinc Plated Music Wire
Adjusting Knob	N	ABS Plastic
Adjusting Screw	N	UNS C36000 Brass
Diaphragm Back-up Plate	N	Zinc Plated Cold Rolled Steel

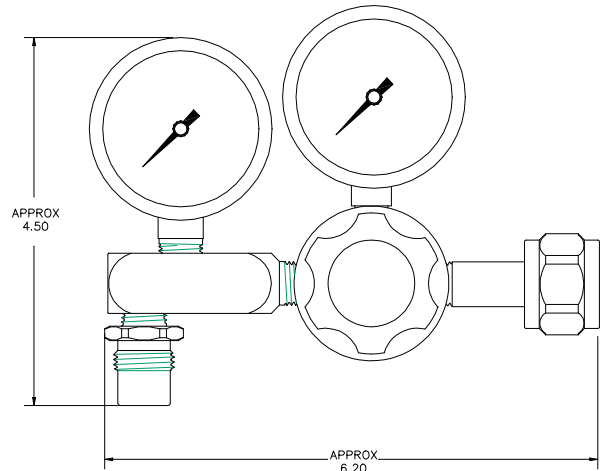
\* PEEK Seat for Nitrous Oxide regulator applications only.

### PHYSICAL CHARACTERISTICS

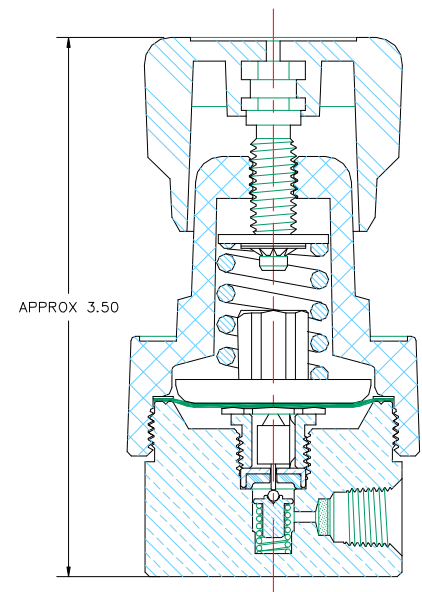
- Dimensions: 6.2" Wide X 4.5" Tall X 3.5" Deep
- Three ¼ - 18 NPT Ports  
 ¼ - 18 NPT Inlet Port @ 0°  
 ¼ - 18 NPT HP Gauge Port @ 90°  
 ¼ - 18 NPT LP Outlet Port @ 180°
- 20 – 30 µ Filtration in HP Ports
- 30 – 45 µ Filtration in non-hand tight nipples
- Weight: Approx 2 lbs 4 ozs
- Available (Non-Yoke) CGA Inlet / Outlet Connections

Gas	CO2	N2O	Air	Mixed	O2	N2
Inlet (CGA)	320	326	346	500	540	580
Outlet (DISS)	1080-A	1040-A	1160-A	1020	1240	1120-A

- 2" Inlet Pressure Gauge, Range: 0-4000 psig (0 – 2000 psig for N2O models)
- 2" Outlet Pressure Gauge, Range: 0-100 psig



CGA540 Nut and Nipple Inlet Shown



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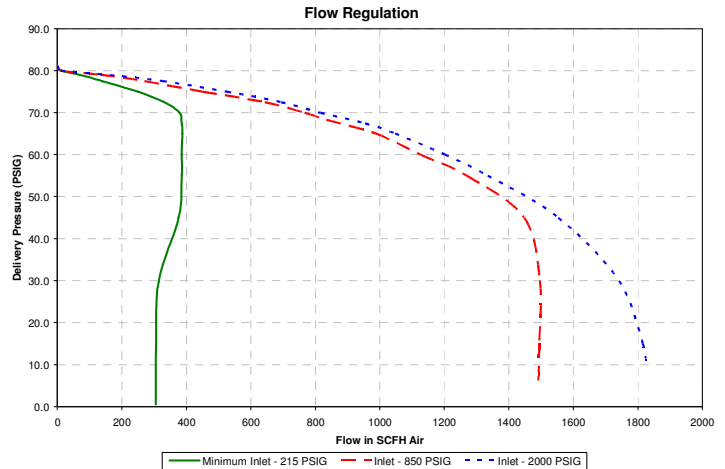
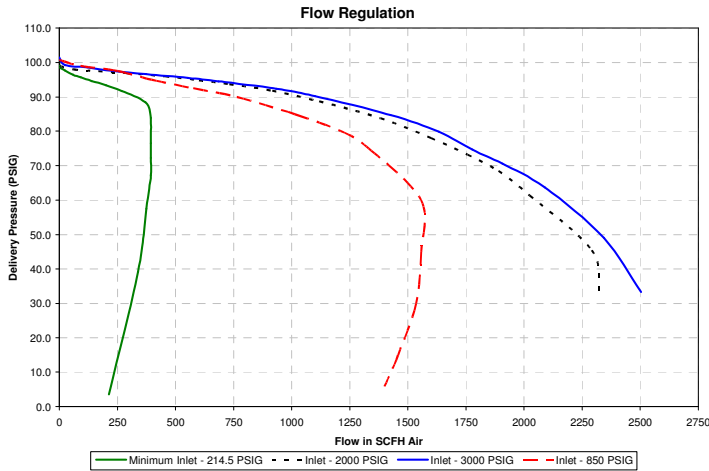
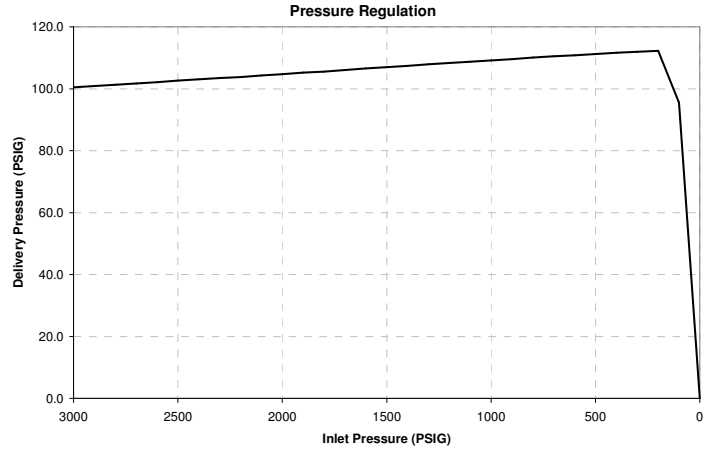
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**PERFORMANCE SPECIFICATIONS**

- Maximum Rated Inlet Pressure: 3000 psig
- Maximum Rated Delivery Pressure: 100 psig
- Operating Temperature Range: 0°F to 120°F (-18°C to 49°C)
- Storage Temperature Range: -40°F to 140°F (-40°C – 60°C)
- Overall External Leak Rate: Bubble Tight
- Safety Relief Pressure: 150 – 195 psig  
Relief Valve Cv @ 2Prv (~ 360 psig): 0.22
- Pressure Regulation Coefficient (i): 0.4
- Static Increment: 1.5 psig
- Overall Flow Coefficient (Cv): 0.045  
Outlet Cv: 0.40
- Flow Regulation: 7.9 PSIG
- Units tested to ASTM G175 Phase 1
- Maximum Rated Flow: See Table Below



Maximum Rated Delivery Pressure (psig)	Minimum Rated Inlet Pressure (psig)	Max rated flow at min rated inlet pressure (SCFH Air)	Max rated flow at 850 psi inlet pressure (SCFH Air)	Max rated flow at 2000 psi inlet pressure (SCFH Air)
100	215	315	1250	1950
80	175 (tested at 215)	310	1200	1450

**Western reserves the right to make design changes without prior notice.**

For more technical information or assistance in ordering please contact Western Customer Service at 1.800.783.7890 or 440.871.2160.