TECHNICAL BULLETIN



MODEL P5

PISTON SENSING SINGLE STAGE PRESSURE REDUCING REGULATOR

OVERVIEW

The Model P5 is designed for gases and liquids with inlet pressures up to 3600 psig (248 Barg). Standard adjustable outlet ranges from 50-1500 psig (3.4-103 Barg). Flow coefficient of 0.06. This general purpose use regulator can be ordered with a variety of options to meet your system demands.

FEATURES

- General Purpose
- Non-venting Standard
- Compact & Lightweight
- Panel or Surface Mounting
- Safe & Reliable Piston Design

TYPICAL APPLICATIONS

- · Injection Moulding Equipment
- High Pressure Gas Booster Systems
- Gas Cabinets
- Research & Development Laboratories

FUNCTIONAL PERFORMANCE

Design Proof

150% of Max Operating

Pressure

Pressure: 5,400 psig (372.3 Barg)

Internal Volume: 2.5 cc

Bubble Tight

Design Leakage

Seat Leakage:

Outboard: 1x10⁻⁵ scc/sec He

Cv Capability: 0.06



MODEL P5



LINE SIZES AVAILABLE

1/4" (DN8), 3/8" (DN10), 1/2" (DN15)



END CONNECTIONS

FNPT



COMMON APPLICATIONS

INJECTION MOLDING EQUIPMENT, HIGH PRESSURE GAS BOOSTER SYSTEMS, GAS CABINETS, RESEARCH & DEVELOP-MENT LABORATORIES



DESIGN PRESSURE

INLET: UP TO 3,600 psig (248.2 Barg) OUTLET: 50-1500 psig (3.4-103 Barg)

GENERAL SPECIFICATIONS

Inlet & Outlet 1/4", 3/8" & 1/2" Wetted Material: 316L SST Piston, Seat Retainer Port Size: (DN8, DN10 & DN15) & Poppet, Inconel X-750Spring

Temp. Limits:

PCTFE -45 to 185°F (-42.7 to 85°C) Maximum Inlet 3,600 psig (248.2 Barg) Pressure: Buna-N -55 to 225°F (-48.2 to 107°C)

-20 to 300°F (-28.9 to 149°C) FKM Outlet Pressure:

50-1500 psig (3.4-103 Barg) Operating Temp.

Body End -20 to 300°F (-28.9 to 149°C) Range:

Connections: **FNPT**

Composite Knob: -50 to 200°F (-45.6 to 93°C)

For temperatures outside (Std.) Body & Spring (Standard)

316L SST/316 SST Chamber Material: knob range see Option for

Colored Knobs.

OPTIONS

NACE Construction - (3 or 4) in Position 6. - Internal wetted portions meet NACE standard MR0175, when the exterior of the regulator is not directly exposed to a sour gas environment, buried, insulated or otherwise denied direct atmospheric exposure. 316L SST Piston, 316L SST Seat Retainer, Inconel X-750 Poppet Spring.

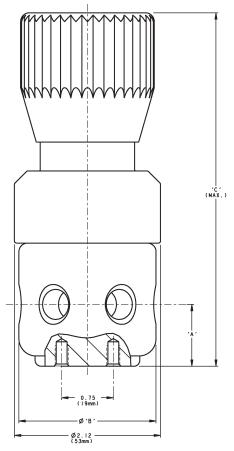
Mounting Bracket - (5) in Position 14. - The mounting bracket is a base, or step type. The material is 303 stainless steel. The bracket mounts to the back of the single stage, and back pressure regulators, via 10/32 screws.

Panel Mount - (C) in Position 14. - The panel mount feature requires a panel minimum of 11 gauge (.12) thick with a 1-3/8" hole cut out, complete with a threaded spring housing, and a panel mount ring to secure the regulator.

Colored Knobs - (2, 8 and W) in Position 15. - The control knob is anodized aluminum either in black, blue, green or red, compared to the standard red composite knob. This allows for color coding of processes. Temperature range: -55 to 300°F (-45.6 to 149 °C).

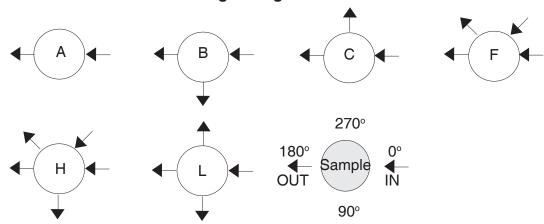
Cleaned per Spec. #S-1542 - (N) in Position 17. - Higher cleaning level than standard commercial cleaning. NOT suitable for Oxygen Service.

DIMENSIONS



English Units In. & lbs.					
	inglish Un	its in. & ii	os.		
Size	Α	В	С	Wt	
1/4" & 3/8"	.90	2.00	5.13	2.2	
1/2"	1.15	2.48	5.38	2.2	
Metric Units mm & kg					
DN8 & DN10	23	50	130	1.0	
DN15	29	63	137	1.0	

Porting Configuration Guide



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MODEL P5 PRODUCT CODER 02/07/20 (COMPOSITE RED KNOB STANDARD)

An "X" in POS 12 followed by a 5-digit control number overrides remaining selections.

















POS 14









POSITION 3 - BODY SIZE / Cv			
Size	Cv	CODE	
1/4" (DN8)	0.06	2	
3/8" (DN10)	0.06	5	
1/2" (DN15)	0.06	8	

POSITION 6 - STANDARD TRIM MATERIALS				
Piston, Seat Retainer,		Std	NACE	
Poppet, Poppet Spring		CODE	CODE	
316L SST, 316L SST,	FKM (std) *	1	3	
316L SST, Inconel X-750	Buna-N **	2	4	
* FKM -20 to 300°F ** Buna-N -55 to 225°F				

POSITION 7 - PORTING CONFIGURATION		
Description	CODE	
See Porting Guide	**** A	
	** B	
	** C	
	*** F	
	*** H	
	** L	

POSITION 12 - OUTLET GAUGE (See "NOTE" - Position 7)		
Psig (Barg)	CODE	
0 - 2000 (0 - 137.9)	1	
No Outlet Gauge	0	
For Special Construction Contact Cashco for Special Product Code	х	

POSITION 13 - INLET GAUGE (See "NOTE" - Position 7)		
Psig (Barg)	CODE	
0 - 60 (0 - 4.1)	С	
0 - 100 (0 - 6.9)	D	
0 - 160 (0 - 11.0)	E	
0 - 300 (0 - 20.7)	F	
0 - 600 (0 - 41.4)	G	
0 - 1000 (0 - 69.0)	н	
0 - 2000 (0 - 137.9)	1	
0 - 3000 (0 - 206.9)	J	
0 - 5000 (0 - 344.9)	К	
No Inlet Gauge	0	

		** L
NOTE:	review fol	ecting from Positions 12 & 13, lowing and select appropriate ion code from above.
	**	Outlet gauge port only
	***	Inlet & outlet gauge ports
	****	No gauge ports available

POSITION 14 - OPTIONS				
OPTIONS CODE OPTIONS CODE				
No Option	0	Panel Mount.	С	
Mounting Bracket.	5			

POSITION 15 - OPTIONS			
OPTIONS	CODE	OPTIONS	CODE
No Option	0	Blue Knob.	8
Black Knob.	2	Red Knob.	W

* For information on ATEX see pages 8 & 9 on the IOM.

POSITION 17 - OPTIONS	
OPTIONS	CODE
No Option	0
* Special Cleaning: Per Spec #S-1542.	N
* <u>NOT</u> suitable for Oxygen Service.	