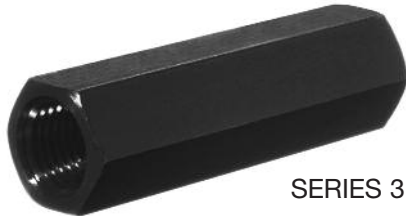
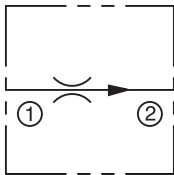


# PC3, PC4, PCM Flow Regulator

## Female-to-Female

IN-LINE



SERIES 3

### FLOW RATING

#### SERIES 3

Size	Controlled Flow Range gpm (lpm)	Min. Oper. Press. $\Delta P$ ( $\Delta$ bar)
1/4" SAE 6	0.1 to 2.0 (0.4 to 7.6)	100 (6.9)

#### SERIES 4

Size	Controlled Flow Range gpm (lpm)	Min. Oper. Press. $\Delta P$ ( $\Delta$ bar)
1/4" SAE 4	0.5 to 5.0 (1.9 to 18.9)	100 - 300 (6.9 - 20.7)
3/8" SAE 6	1.0 to 10.0 (3.8 to 37.9)	100 - 200 (6.9 - 13.8)
1/2" SAE 8	1.5 to 15.0 (5.7 to 56.8)	100 (6.9)
3/4" SAE 12	2.0 to 30.0 (7.6 to 113.6)	100 (6.9)

### DESCRIPTION

Pneu-Trol pressure compensated constant flow valves are exceptionally accurate in maintaining constant flow with pressures up to 3,000 psi (207 bar). These non-adjustable units provide exact factory-set output flow, regardless of inlet pressure, up to rated limits.

Series 3 is a miniature 1/4" valve for small flow rates. Series 4 is our standard fixed flow valve with flow capacity up to 30.0 gpm (113.6 lpm). Both Series 3 & 4 provide for "restricted" reverse flow as limited by the internal orifice.

The compensating action of these valves results from a fixed diameter orifice at the inlet end and a series of variable orifices at the outlet end. Flow through the variable orifices is controlled by a spring and piston. These elements work together to regulate hydraulic flow within the determined rates. Flows are controlled within  $\pm 15\%$  up to 1.5 gpm (5.7 lpm) and  $\pm 10\%$  at higher flow up to 30.0 gpm (113.6 lpm). Regulation is virtually unaffected by temperature changes from 60° F (16° C) to 180° F (82° C). At a temperature differential  $[\Delta T]$  of 70° F (21° C) flow variation would be approximately  $\pm 2\%$  max; while at temperature differential  $[\Delta T]$  of 120° F (49° C) the flow variation would be approximately  $\pm 4\%$  max.

Series 3 units are made from high-strength steel. Series 4 units are made from aluminum for the 1/4" & 3/8" sizes and high-strength steel for 1/2" & 3/4" sizes. The standard porting of these valves is NPTF with optional SAE threads available on selected models.

- For hydraulic applications only
- Maintains accurate constant flow at pressures up to 3,000 psi (207 bar)
- Fixed (Factory-Set) flow units

### SPECIFICATIONS

#### Maximum Operating Pressure (Non-Shock Service)

Carbon Steel: 3,000 psi (207 bar)  
Aluminum: 3,000 psi (207 bar)

#### Minimum Operating Pressure (See Flow Rating Chart)

#### Operating Temperature Range

-15° to +400° F (-26° to +204° C)

#### Threads

NPTF, SAE

Housing: Steel  
Spring: Music Wire  
Piston: Steel  
O-Rings: Viton  
Back-Up Washer: Teflon

#### Materials (PC3)

Body, Sleeve: Steel  
Spring: Music Wire  
Piston: Steel  
O-Ring: Viton  
Washer: Steel  
Retaining Ring: Steel

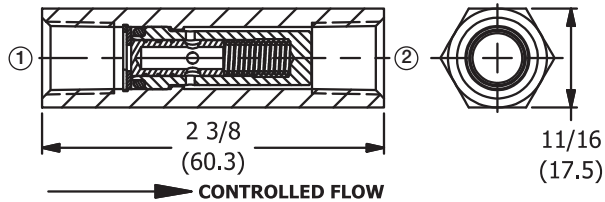
#### Materials (PC4)

Body, Adapter:  
Aluminum 2011-T3 (PC4-21, PC-4-31)  
Steel (PC4-41, PC4-61)

## INSTALLATION DIMENSIONS

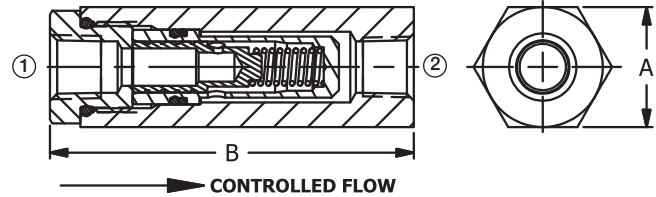
### Series 3

Miniature Fixed - with Restricted Reverse Flow



### Series 4

Standard Fixed - with Restricted Reverse Flow



Size	A HEX	B
1/4"-SAE 4	1 (25.4)	3 (76.2)
3/8"-SAE 6	1-3/8 (34.9)	3-7/8 (98.4)
1/2"-SAE 8	1-1/2 (38.1)	4-1/4 (108.0)
3/4"	1-5/8 (41.3)	4-19/32 (116.7)
SAE 12	1-5/8 (41.3)	4-7/8 (123.8)

( ) Parentheses = Millimeters

## HOW TO ORDER



Flow  
Regulator



Thread



Series



Size



Flow Rate  
gpm

Code	Thread
Omit	NPT
<b>M4</b>	SAE 4
<b>M6</b>	SAE 6
<b>M8</b>	SAE 8
<b>M12</b>	SAE 12

Code	Series
<b>3</b>	Miniature
<b>4</b>	Standard

Code	Size		Series 3 only
	NPT	SAE	
2	1/4"	SAE 6	
21	1/4"	SAE 4	
31	3/8"	SAE 6	
41	1/2"	SAE 8	
61	3/4"	SAE 12	

## AVAILABLE MODEL CODES

Size	NPT Thread	Flow Range gpm (lpm)
1/4"	PC3-2-gpm	0.1 to 2.0 (0.4 to 7.6)
	PC4-21-gpm	0.5 to 5.0 (1.9 to 18.9)
3/8"	PC4-31-gpm	1.0 to 10.0 (3.8 to 37.9)
1/2"	PC4-41-gpm	1.5 to 15.0 (5.7 to 56.8)
3/4"	PC4-61-gpm	2.0 to 30.0 (7.6 to 113.6)

Size	SAE Thread	Flow Range gpm (lpm)
SAE 4	PCM44-21-gpm	0.5 to 5.0 (1.9 to 18.9)
SAE 6	PCM63-2-gpm	0.1 to 2.0 (0.4 to 7.6)
	PCM64-31-gpm	1.0 to 10.0 (3.8 to 37.9)
SAE 8	PCM84-41-gpm	1.5 to 15.0 (5.7 to 56.8)
SAE 12	PCM124-61-gpm	2.0 to 30.0 (7.6 to 113.6)

## AVAILABLE FLOW RATES BY SIZE

PC3 Only 1/4"		PC4 1/4"		PC4 3/8"		PC4 1/2"		PC4 3/4"	
gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm
0.10	0.38	0.50	1.90	1.00	3.79	1.50	5.68	2.00	7.57
0.15	0.57	0.75	2.84	1.20	4.55	3.00	11.36	2.50	9.47
0.20	0.76	0.90	3.41	1.50	5.68	3.50	13.25	3.00	11.36
0.30	1.14	1.00	3.79	2.00	7.57	3.75	14.20	3.50	13.25
0.40	1.52	1.25	4.74	2.25	8.52	4.00	15.14	4.00	15.14
0.05	1.90	1.30	4.92	2.50	9.47	4.50	17.04	4.50	17.04
0.60	2.28	1.50	5.68	3.00	11.36	5.00	18.93	5.00	18.93
0.75	2.84	1.75	6.63	3.25	12.30	5.50	20.82	6.00	22.71
1.00	3.79	2.00	7.57	3.50	13.25	6.00	22.71	7.00	26.50
1.25	4.74	2.50	9.47	4.00	15.14	7.00	26.50	8.00	30.28
1.50	5.68	2.80	10.60	5.00	18.93	7.50	28.39	9.00	34.07
1.75	6.63	3.00	11.36	6.00	22.71	8.50	32.18	10.00	37.86
2.00	7.57	3.50	13.25	6.25	23.66	9.00	34.07	12.00	45.42
		4.00	15.14	7.00	26.50	10.00	37.86	14.00	52.99
		5.00	18.93	8.00	30.28	11.00	41.64	16.00	60.56
				9.00	34.07	12.00	45.42	18.00	68.13
				10.00	37.86	13.00	49.21	20.00	75.70
						14.00	52.99	22.00	83.27
						15.00	56.78	24.00	90.84
								26.00	98.41
								28.00	105.98
								30.00	113.55

**Note:** PC3s & PC4s are NOT stocked as complete or finished units.  
 All "Fixed" units are drilled to suit each customer's order "after" receipt.

Pneutrol International Limited

UK Office  
 5 Caulside Drive, Antrim, BT41 2DU  
 United Kingdom  
 TEL: +44 (0) 28 9448 1800  
[www.pneutrol.com/industrialspares](http://www.pneutrol.com/industrialspares)

[sales@pneutrol.com](mailto:sales@pneutrol.com)

European Office  
 Unit 6, Saint Anthony's Business Park, Ballymount Road, D22 VW95  
 Ireland  
 TEL: +353 (0) 1 4373653  
[www.pneutrol.com/industrialspares](http://www.pneutrol.com/industrialspares)