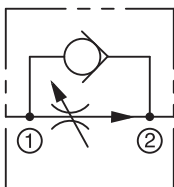


### IN-LINE



### DESCRIPTION

Easy Read pressure compensated constant flow regulator valves are exceptionally accurate in maintaining constant flow with pressures up to 3,000 psi (207 bar). These adjustable valves, while under pressure, allow infinite output flow adjustment within a specified flow range independent of inlet pressure variations. An internal check valve to bypass the control orifice provides unrestricted free reverse flow.

The compensating action of these valves results from an adjustable 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 15.0 gpm (56.8 lpm). Valves will start to control flow at 60/70 psi (4.1/4.8 bar) pressure drop. 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.

Metal setting knob and stem provide added durability for positive operation of valve in harsh industrial environments. Color coded stem plus numerical read-out ensures accurate setting for precise pressure compensated flow control and repeatability.

- Maintains accurate, constant flow at pressures up to 3,000 psi (207 bar)
- Metal setting knob and stem to adjust flow
- Positive position setting for precise flow control and easy repeatability
- Set Screw in knob to maintain flow setting
- Low pressure drop in free reverse

### FLOW RATING

Size	Controlled Flow Range gpm (lpm)	Minimum Oper. Pressure $\Delta P$ ( $\Delta$ bar)
1/4"	0.5 - 5.0 (1.9 - 18.9)	60 (4.1)
3/8"	1.0 - 10.0 (3.8 - 37.9)	70 (4.8)
1/2"	1.5 - 15.0 (5.7 - 56.8)	70 (4.8)
3/4"	3.0 - 30.0 (11.4 - 113.6)	70 (4.8)

### SPECIFICATIONS

#### Maximum Operating Pressure

Carbon Steel: 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, BSPT

#### Materials

Body: Steel

Needle: Stainless Steel

O-Ring: Vitron

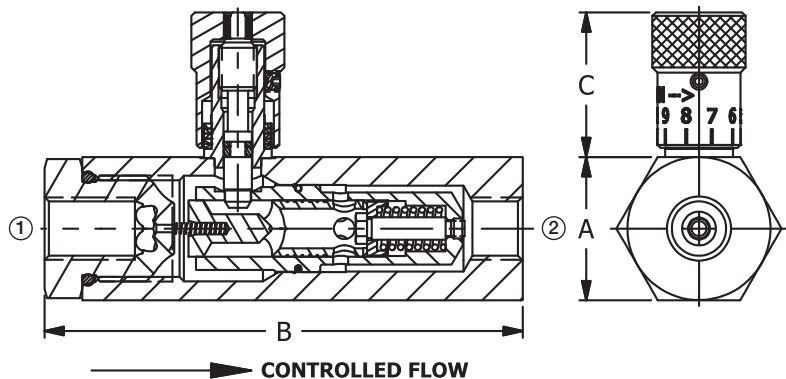
Washer: Teflon

Knob: Aluminum

Piston: Steel

Spring: Music Wire

## INSTALLATION DIMENSIONS



Pipe Size	A HEX	B	C Open	C Closed
1/4"	1-3/16 (30.2)	3-31/32 (100.8)	1-13/32 (35.7)	1-7/32 (31.0)
3/8"	1-1/2 (38.1)	5-27/64 (137.8)	1-31/32 (50.0)	1-5/8 (41.3)
1/2"	1-5/8 (41.3)	5-7/8 (149.3)	1-31/32 (50.0)	1-5/8 (41.3)
3/4"	1-7/8 (47.7)	6-9/16 (166.7)	2-3/16 (55.6)	1-13/16 (46.1)

( ) Parentheses = Millimeters

## HOW TO ORDER

Size	NPTF Thread	ISO 7/1 - RP - BSP Taper Thread
1/4"	EPC521	EPCB521
3/8"	EPC531	EPCB531
1/2"	EPC541	EPCB541
3/4"	EPC561	EPCB561