

Flow Control Valves

CP311-1

Flow Control, Fixed, Pressure Compensated, Priority Type

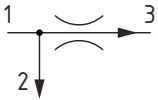
210 bar [3000 psi] • 45 l/min [12 US gpm]



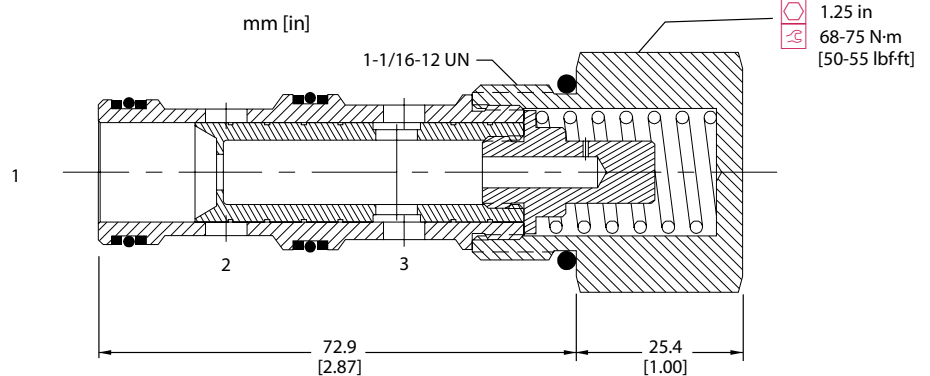
DESCRIPTION AND OPERATION

This is a fixed, priority type, pressure compensated flow control valve, where the flow from port 3 will remain constant regardless of the pressure difference across the valve, while excess flow passes from port 1 to 2. Flow enters at port 1 and passes across a fixed orifice in the spool, which creates a pressure drop. This causes the spool to move back against the spring, which then restricts the outlet flow. Port 1 then opens to port 2 to allow excess flow to pass. The regulated flow will always take priority and remains constant if the working pressure is higher in either port 2 or port 3.

SCHEMATIC



DIMENSIONS

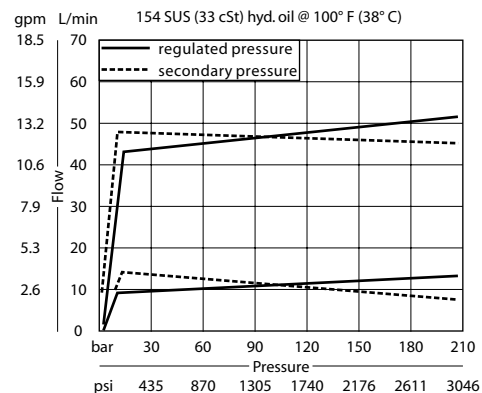


PERFORMANCE DATA

Rated pressure	210 bar [3000 psi]
Rated flow	45 l/min [12 US gpm]
Max inlet flow	95 l/min [25 US gpm]
Flow range	1.9-45.4 l/min [0.5-12 US gpm]
Flow accuracy	1.9-7.5 l/min [0.5-1.99 US gpm] ± 15%
	7.6-45.4 l/min [2-12 US gpm] ± 10%
Weight	0.28 kg [0.61 lb]
Cavity	CP12-3

PERFORMANCE CURVES

Flow Compensation



MODEL CODE

CP311 - 1 - B - 12S - 12.0

Seal Option

Code	Seal Kit
B-Buna-N	120053
V-Viton	120052

Housing

Code	Ports&Material	Housing Model Code
0	No Housing	No Housing
4B	AL, 1/2 BSP	CP12-3-4B
6B	AL, 3/4 BSP	CP12-3-6B
10S	AL, #10 SAE	CP12-3-10S
12S	AL, #12 SAE	CP12-3-12S

* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].

* Additional housings available

Flow Setting

Code - Flow in US gpm
Specify in 0.1 gpm increments within flow range

Example

Code	l/min	[US gpm]
12.0	45.0	12.0