Logic Elements
CP311-4

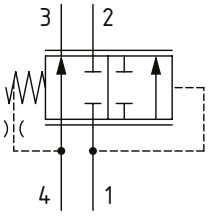
Pressure Compensator, Priority Type

210 bar [3000 psi] • 60 l/min [16 US gpm]

DESCRIPTION AND OPERATION

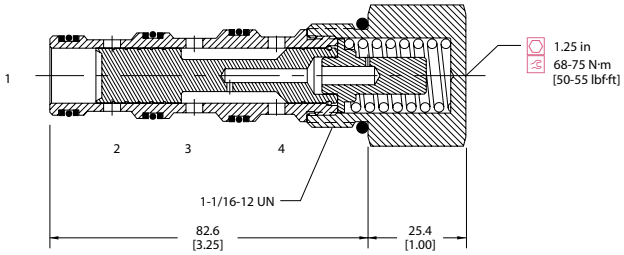
This is a 4-ported spool valve where flow from port 1 to port 2 is blocked and port 4 is connected to port 3. The spring chamber is connected to port 4 through an orifice in the spool. When port 4 is connected to the outlet of a control orifice and port 1 is connected upstream of the orifice, the valve functions as a priority pressure compensator. When the pressure drop across the orifice is equal to the spring set pressure, the spool begins to restrict the flow to port 3, while opening port 1 to port 2 to allow excess flow to pass to another part of the circuit. If the pressure in the second part of the circuit rises above the pressure in port 3, the spool will move back to restrict the flow from port 1 to port 2 and maintain the priority flow to port 3 regardless of pressure changes between port 3 and port 2. These valves are ideal for use in circuits where a priority flow is needed to a function while allowing the excess flow to be used for other purposes.

SCHEMATIC



DIMENSIONS

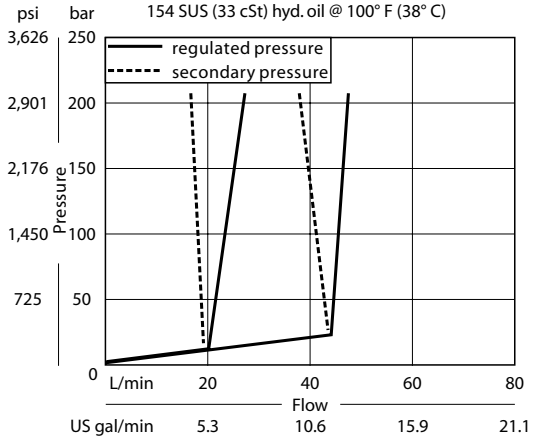
mm [in]



PERFORMANCE DATA

Rated pressure	**210 bar [3000 psi]**
Rated flow	**60 l/min [16 US gpm]**
Weight	0.31 kg [0.69 lb]
Cavity	CP12-4

PERFORMANCE CURVES



MODEL CODE

CP311 - 4 - B - 8S - 050

Seal Option

Code	Seal kit
B-Buna - N	120262
V-Viton	120263

Housing

Code	Ports & Material	Housing Model Code
0	No Housing	
8S	AL, #8 SAE	CP12-4-8S
10S	AL, #10 SAE	CP12-4-10S
12S	AL, #12 SAE	CP12-4-12S
3B	AL, 3/8 BSP	CP12-4-3B
4B	AL, 1/2 BSP	CP12-4-4B

Differential Pressure

Code	Bar	Psi
050	3.5	[50]
080	5.5	[80]
100	6.9	[100]
150	10.3	[150]

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