Logic Elements Catalog
Pressure Compensator
CP301-4

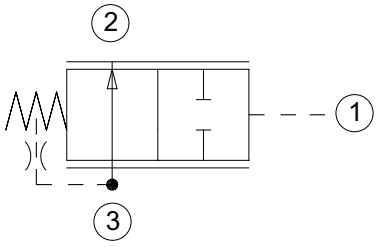
OPERATION
The CP301-4 is a 12-size, flow control, restrictive type pressure compensator. Restrictive-type pressure compensators are three-ported valves that work in series with a fixed or variable control orifice. The pressure compensator is located downstream of the orifice and is spring-biased to an open position as shown in the example circuit. The spool "senses" the pressure on either side of the control orifice and will vary it's restriction in order to maintain a constant pressure differential across the control orifice, hence maintaining a constant flow rate.

APPLICATION
Common applications include any circuit that requires compensated flow control going to one actuator or circuit. Pressure compensators offer the circuit designer capability to add pressure compensation to any fixed or variable orifice. This ensures that flow, and resulting actuator speed, are maintained regardless of system and working pressures

SPECIFICATION

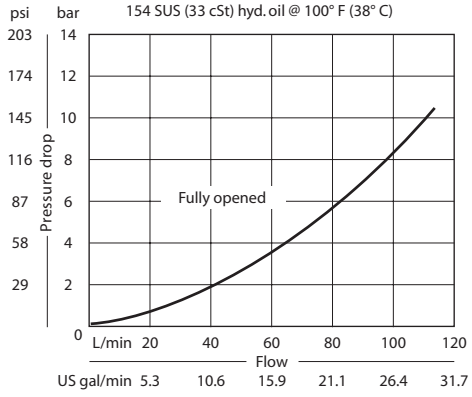
Rated pressure	210 bar [3000 psi]
Rated flow at 7 bar [100 psi]	90 l/min [24 US gal/min]
Weight	0.30 kg [0.67 lb]
Cavity	CP12-3

SCHEMATIC



PERFORMANCE CURVE

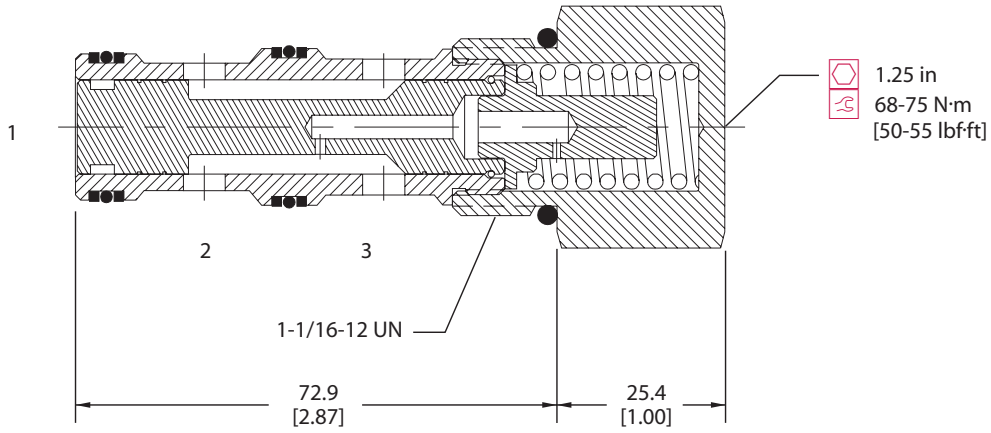
Theoretical performance



DIMENSION

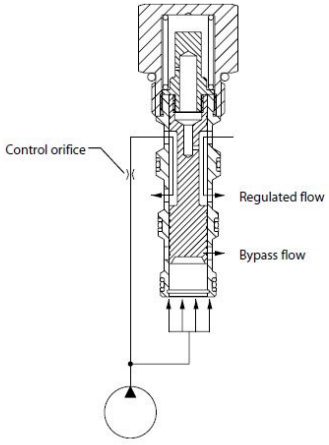
mm [in]

Cross-sectional view

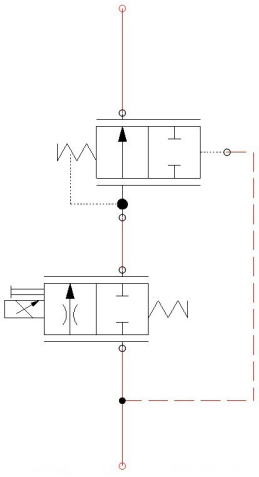


EXAMPLE CIRCUITS

Priority-type pressure Compensator operation



Post-Compensated Proportional Flow Control



ORDERING INFORMATION

CP301 - 4 - B - 12S - 0 - 080

Seals

	Seal kit
B = Buna-N	120053
V = Viton	120052

Housing and ports / **Housing P/N**

0 = No housing	No housing
10S = AL, #10 SAE	CP12-3-10S
12S = AL, #12 SAE	CP12-3-12S
4B = AL, 1/2 BSP	CP12-3-4B
6B = AL, 3/4 BSP	CP12-3-6B

Differential Control Pressure

	bar	[psi]
050 =	3.5	[50]
080 =	5.5	[80]
100 =	6.9	[100]
150 =	10.3	[150]
190 =	13.1	[190]