OPERATION

The CP701-4 is a 12-size, normally open, pilot-to-open, spring-biased differential-sensing logic element. It will modulate flow from 2 to 1 based on the spring control pressure, inlet pressure at port 1, and outlet pressure at port 3.

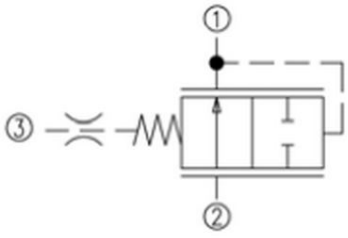
APPLICATION

Common applications include: pre-compensator for proportional directional control or flow controls, as well as a pressure control valve. A common application for this valve is as a pressure compensator when applied with a fixed, or adjustable orifice to create a pressure-compensated flow control. This ensures that flow rate, and resulting actuator speed is maintained regardless of pressure drop across the control orifice. Effective use of logic elements is a key to designing cost-effective circuits, and is limited only by the imagination of the designer.

SPECIFICATION

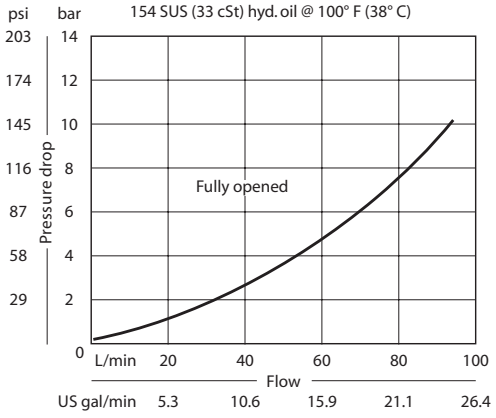
Rated pressure	210 bar [3000 psi]
Rated flow at 7 bar [100 psi]	75 l/min [20 US gal/min]
Weight	0.26 kg [0.57 lb]
Cavity	CP12-3S

SCHEMATIC



PERFORMANCE CURVE

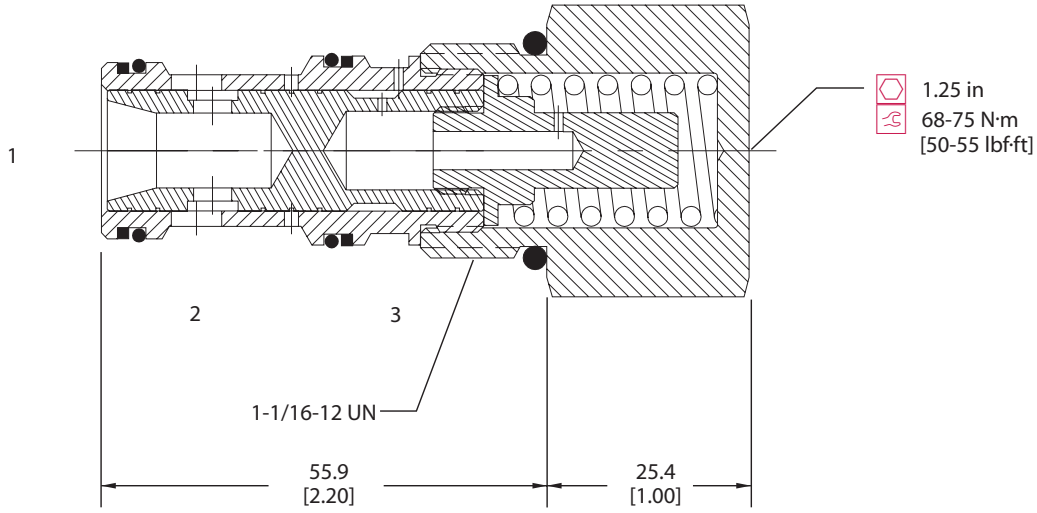
Theoretical performance



DIMENSION

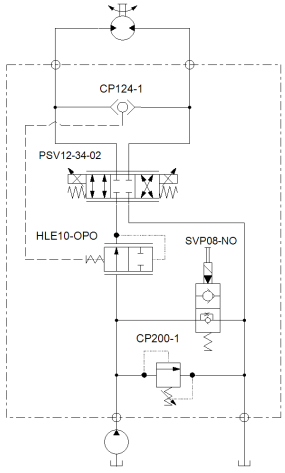
mm [in]

Cross-sectional view

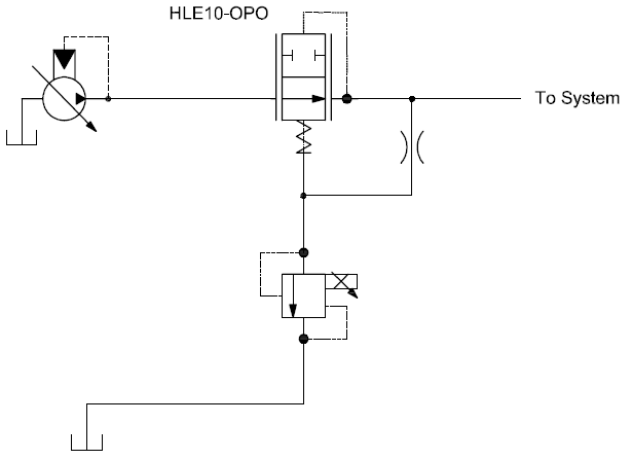


EXAMPLE CIRCUITS

Compensated Circuit



Proportional Pressure Reducing



ORDERING INFORMATION

CP701 - 4 - B - 12S - 080

Seals

		Seal kit
B	= Buna-N	120335
V	= Viton	120336

Housing and ports

		Housing P/N	Pilot port
0	= No housing	No houisng	
4B	= AL, 1/2 BSP	CP12-3S-4B/2B	= 1/4 BSP
6B	= AL, 3/4 BSP	CP12-3S-6B/2B	= 1/4 BSP
10S	= AL, #10 SAE	CP12-3S-10S/4S	= #4 SAE
12S	= AL, #12 SAE	CP12-3S-12S/4S	= #4 SAE

Differential Control Pressure

		bar	[psi]
030	=	2.1	[30]
050	=	3.5	[50]
080	=	5.5	[80]
100	=	6.9	[100]
150	=	10.3	[150]