



### OPERATION

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

### APPLICATION

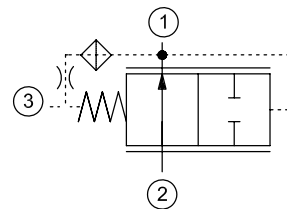
Common applications include: high-flow pressure reducing valve when using a small relief valve (like CP208-1), or a proportional relief valve (like PRV08-DAC) as a pilot element. Effective use of logic elements is a key to designing cost-effective circuits, and is limited only by the imagination of the designer.

### SPECIFICATION

Rated pressure*	350 bar [5075 psi]
Rated flow at 7 bar [100 psi]	80 l/min [21 US gal/min]
Weight	0.26 kg [0.57 lb]
Cavity	<b>CP12-3S</b>

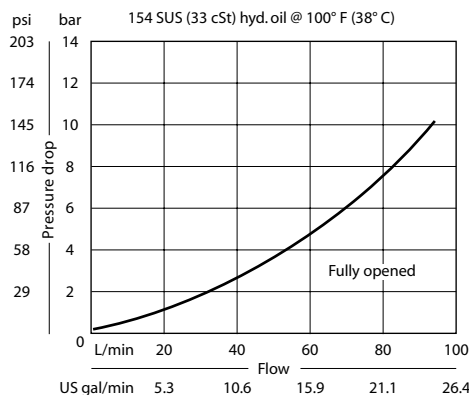
\* Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles).

### SCHEMATIC



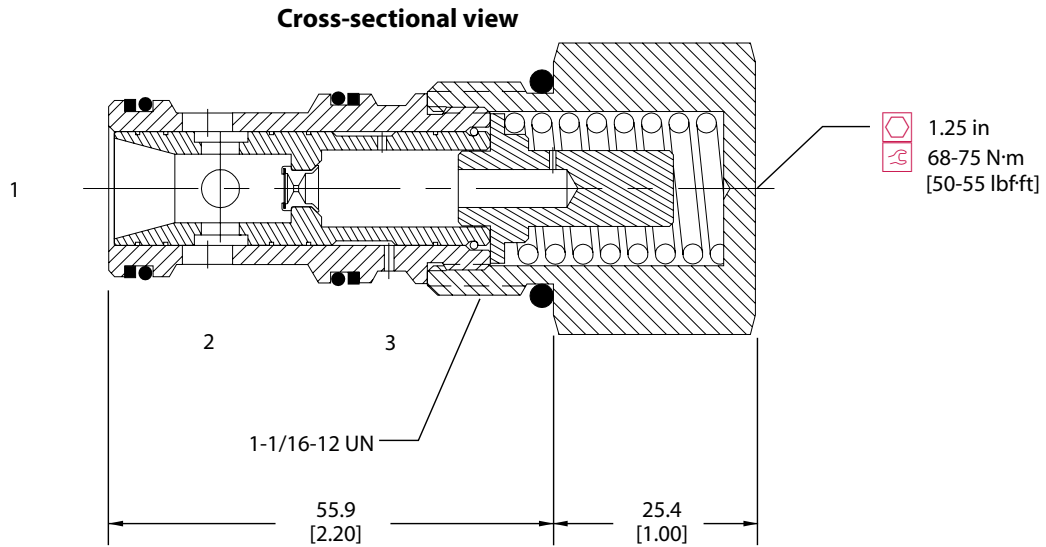
### PERFORMANCE CURVE

#### Theoretical performance



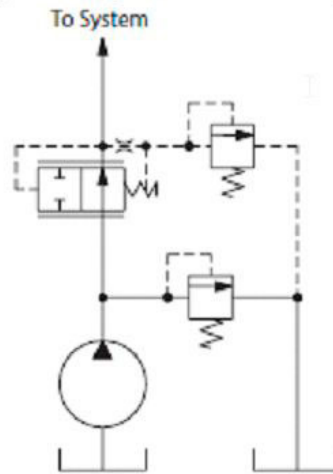
### DIMENSION

mm [in]



### EXAMPLE CIRCUITS

#### Pilot-operated pressure reducing valve



### ORDERING INFORMATION

**CP701 - 3 - B - 12S - 080**

<p><b>Seals</b></p> <p>B = Buna-N V = Viton</p> <p><b>Housing and ports</b></p> <p>0 = No housing 4B = AL, 1/2 BSP 6B = AL, 3/4 BSP 10S = AL, #10 SAE 12S = AL, #12 SAE</p>	<p><b>Seal kit</b></p> <p>120335 120336</p> <p><b>Housing P/N</b></p> <p>No housing CP12-3S-4B/2B = 1/4 BSP CP12-3S-6B/2B = 1/4 BSP CP12-3S-10S/4S = #4 SAE CP12-3S-12S/4S = #4 SAE</p>	<p><b>Pilot port</b></p>	<p><b>Differential Control Pressure</b></p> <table border="0"> <tr> <td></td> <td>bar</td> <td>[psi]</td> </tr> <tr> <td>030</td> <td>= 2.1</td> <td>[30]</td> </tr> <tr> <td>050</td> <td>= 3.5</td> <td>[50]</td> </tr> <tr> <td>080</td> <td>= 5.5</td> <td>[80]</td> </tr> <tr> <td>100</td> <td>= 6.9</td> <td>[100]</td> </tr> <tr> <td>150</td> <td>= 10.3</td> <td>[150]</td> </tr> </table>		bar	[psi]	030	= 2.1	[30]	050	= 3.5	[50]	080	= 5.5	[80]	100	= 6.9	[100]	150	= 10.3	[150]
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