



Logic Elements Technical Information

Spool Type CP703-4

OPERATION

The CP703-4 is a 20-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, outlet pressure at port 1, and pilot pressure at port 3.

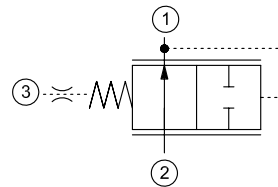
APPLICATION

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 [3045 psi]
Rated flow at 7 bar [100 psi]	200 l/min [53 US gal/min]
Weight	1.18 kg [2.60 lb]
Cavity	CP20-3S

SCHEMATIC

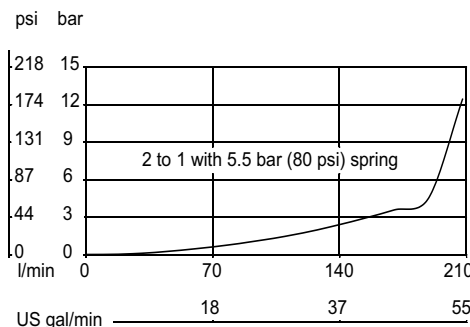


PERFORMANCE CURVE

Theoretical performance

Pressure Drop

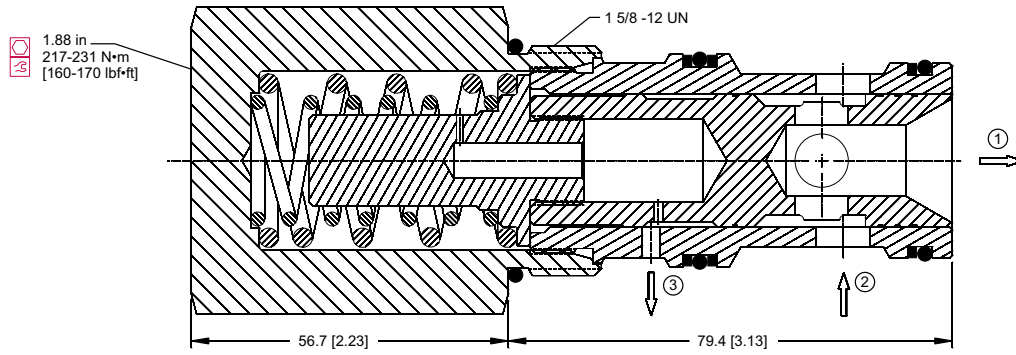
33 cSt [154 SUS] hyd.oil @ 38°C [100° F]



DIMENSION

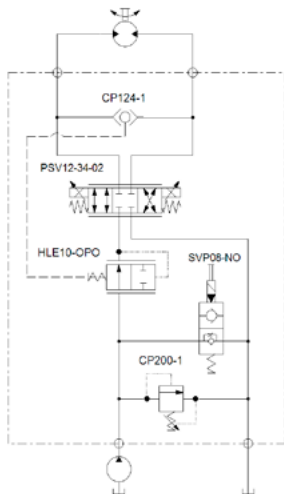
mm [in]

Cross-sectional view

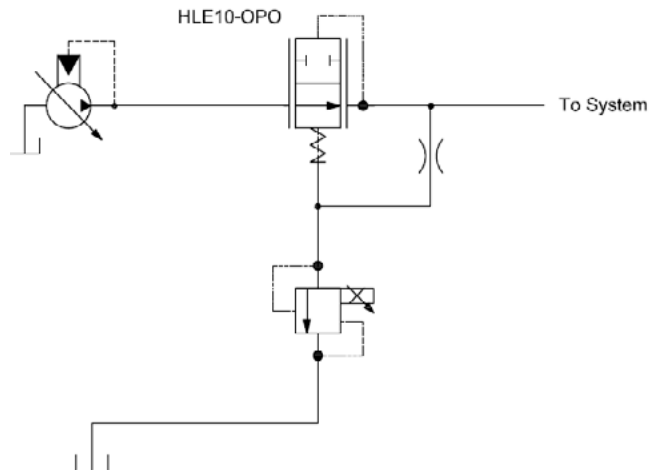


EXAMPLE CIRCUITS

Compensated Circuit



Proportional Pressure Reducing



ORDERING INFORMATION

		CP703-4-B-8B-050		
Seals		Seal kit		Differential Control Pressure
B = Buna-N		120380		
V = Viton		120381		bar [psi]
Housing and ports		Housing P/N	Pilot port	050 = 3.5 [50]
0 = No housing		No housing		080 = 5.5 [80]
8B = AL, 1 BSP		CP20-3S-8B/2B	= 1/4 BSP	100 = 6.9 [100]
10B = AL, 1-1/4 BSP		CP20-3S-10B/2B	= 1/4 BSP	130 = 9.0 [130]
16S = AL, #16 SAE		CP20-3S-16S/4S	= #4 SAE	150 = 10.3 [150]
20S = AL, #20 SAE		CP20-3S-20S/4S	= #4 SAE	
other housings available				