



# Logic Elements Technical Information

## Spool Type LE20-CPC

### OPERATION

The LE20-CPC is a 20-size, normally-closed, pilot-to-close, spool-type, spring biased differential-sensing logic element. It will modulate flow from 1 to 2 based on the spring control pressure, inlet pressure at port 1, and pilot pressure at port 3.

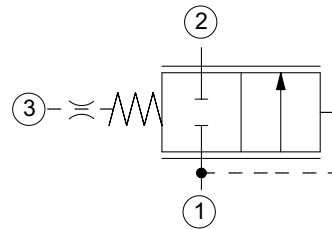
### APPLICATION

Common applications include load-sensing bypass compensator for a fixed displacement pump with single or multiple actuators as well as bypass-type pressure-compensated flow control. Effective use of logic elements is a key to designing cost-effective circuits, and is limited only by the imagination of the designer.

### SPECIFICATION

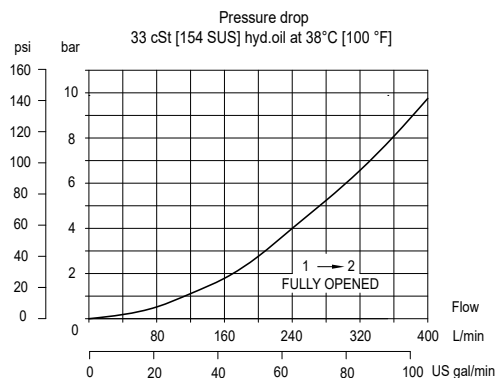
Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [100 psi]	340 l/min [90 US gal/min]
Weight	1.19 kg [2.62 lb]
Cavity	<b>CP20-3S</b>

### SCHEMATIC



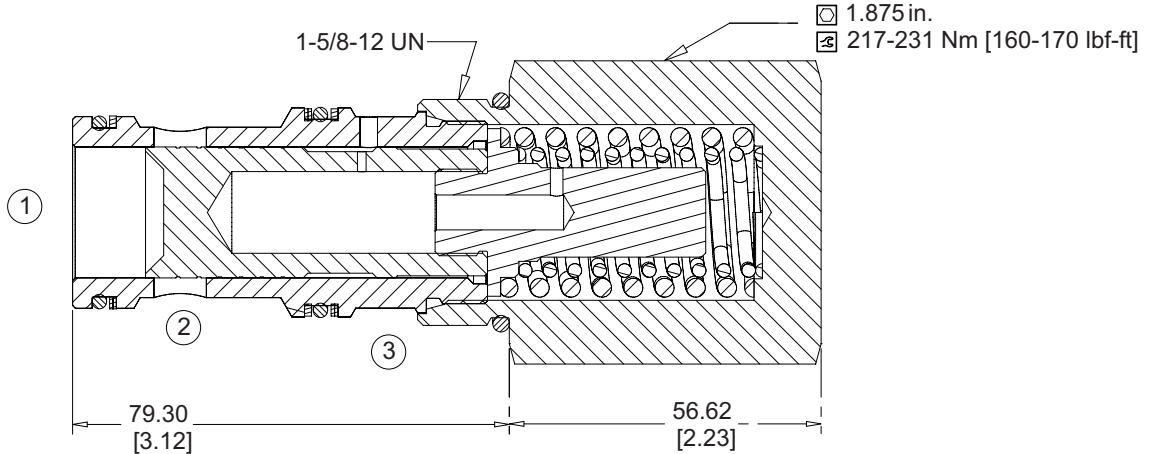
### PERFORMANCE CURVE

### Theoretical performance

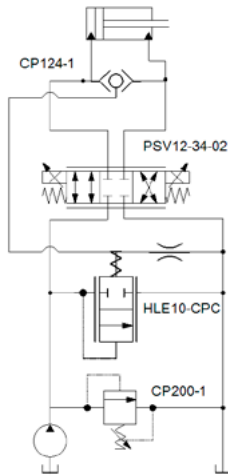


**DIMENSION**  
mm [in]

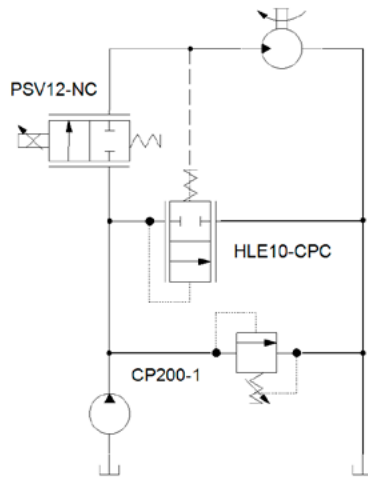
**Cross-sectional view**



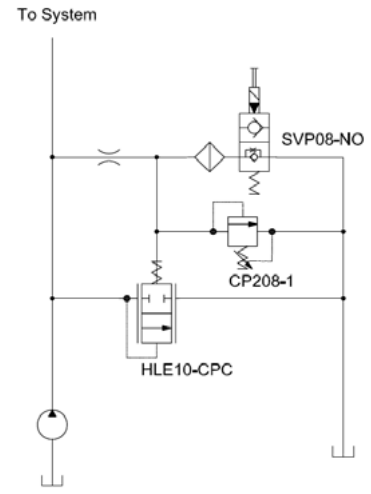
**EXAMPLE CIRCUITS**



*Double Acting Cylinder with Proportional Speed Control, Unloading Valve and Circuit Relief*



*Proportional Bypass Flow Control*



*Dump and Relief Valve for a Fixed Pump*

**ORDERING  
INFORMATION**

**LE20-CPC-5.5-B-00**

Logic Element,  
20 Size Cavity  
Normally Closed,  
Pilot-to-Close  
Differential Control Pressure  
5.5 = 5.5 bar [80 psi]  
7.0 = 7 bar [100 psi]  
10.0 = 10.0 bar [150 psi]  
15.0 = 15.0 bar [218 psi]

Housing and ports  
00 = No Housing  
8B = AI, 1 BSP  
10B = AI, 1-1/4 BSP  
16S = AI, #16 SAE  
20S = AI, #20 SAE

Seals  
B = Buna-N  
V = Viton  
Seal Kit  
120380  
120381

Housing Part # Pilot Port  
No Housing  
CP20-3S-8B/2B 1/4 BSP  
CP20-3S-10B/2B 1/4 BSP  
CP20-3S-16S/4S #4 SAE  
CP20-3S-20S/4S #4 SAE