



Logic Elements Technical Information

Spool Type HLE10-CPC

OPERATION

The HLE10-CPC is a 10-size, high pressure, 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

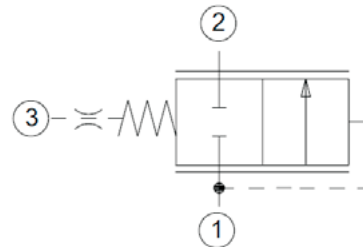
Common applications include load-sensing bypass compensator for a fixed displacement pump with single or multiple actuators as well as bypass-type pressure-compensated flow control. Effective use of logic elements is a key to designing cost-effective circuits, and is limited only by the imagination of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

SPECIFICATION

Rated Pressure*	350 bar [5075 psi]
Rated Flow at 7 bar [100 psi]	80 l/min [21.1 US gal/min]
Weight	0.14 kg [0.31 lbs]
Cavity	SDC10-3S

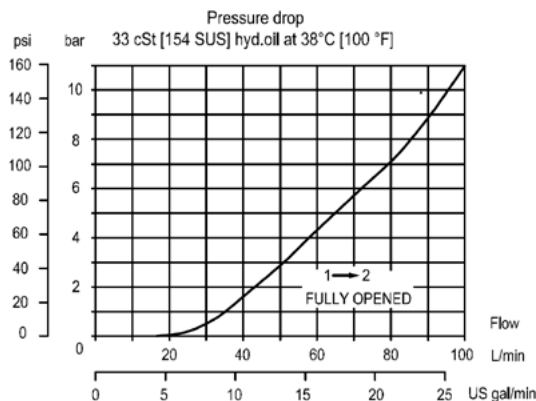
* Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles).

SCHEMATIC



PERFORMANCE CURVE

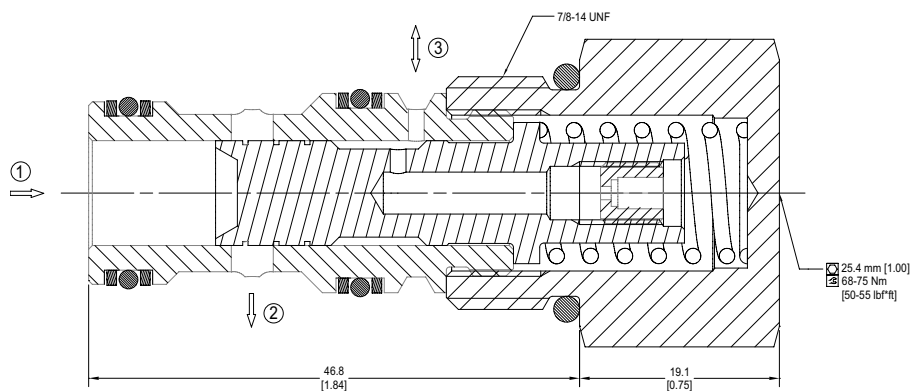
Theoretical Performance



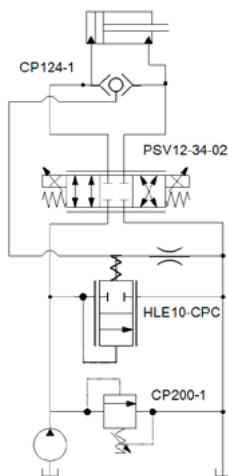


DIMENSION

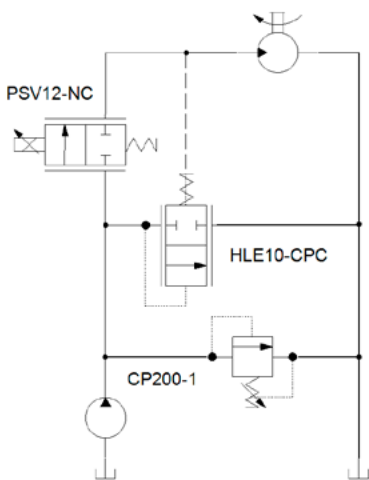
Cross-sectional view



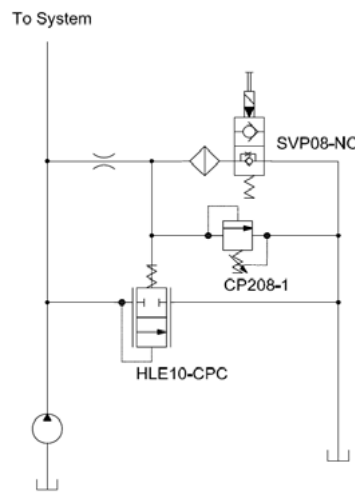
EXAMPLE CIRCUITS



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

HLE10: High pressure, logic element, 10-size

CPC: Normally closed, pilot to close

HLE10- CPC - 2.75 - B - 00

Differential Pressure Control

Code	Description
2.75	2.75 bar [40 psi]
5.5	5.5 bar [80 psi]
7.5	7.5 bar [110 psi]
10.0	10.0 bar [150 psi]
13.0	13.0 bar [190 psi]
15.0	15.0 bar [220 psi]

Housings

Code	Ports and Material	Housing P/N
00	Cartridge Only	No Body
6S	AL, #6 SAE	SDC10-3S-6S
8S	AL, #8 SAE	SDC10-3S-8S
3B	AL, 3/8 BSP	SDC10-3S-3B
4B	AL, 1/2 BSP	SDC10-3S-4B
S6S	STEEL, #6 SAE	SDC10-3S-S6S
S8S	STEEL, #8 SAE	SDC10-3S-S8S

*** Aluminum bodies are for use in lower pressure applications only [less than 210 bar (3000 psi)].

Code	Seal Material	Seal kit
B	Buna	11126248
V	Viton	11126249