ENGINEERING
TOMORROW

Danfoss

Logic Elements Technical Information
Spool Type
CP700-2

OPERATION

The CP700-2 is a 10-size, normally closed, vent-to-open, 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.
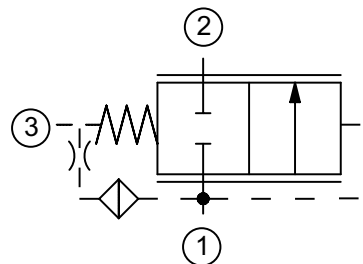
APPLICATION

Common applications include: pump unloading, pilot-operated relief valve (mechanical or proportional), sequence valve and selector circuit. Effective use of logic elements is a key to designing cost-effective circuits, and is limited only by the imagination of the designer.
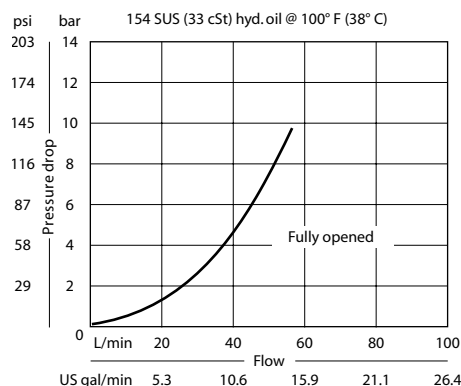
SPECIFICATION

Rated pressure	210 bar [3045 psi]
Rated flow at 7 bar [100 psi]	50 l/min [13 US gal/min]
Weight	0.13 kg [0.28 lb]
Cavity	**SDC10-3**

SCHEMATIC

PERFORMANCE CURVE

Theoretical performance

154 SUS (33 cSt) hyd. oil @ 100° F (38° C)

Fully opened

DIMENSION
mm [in]

Cross-sectional view

1.00 in
41-47 N·m
[30-35 lbf·ft]

1

2   3

7/8-14 UNF

46.2
[1.82]

19.1
[0.75]

EXAMPLE CIRCUITS

High Pressure Proportional Relief
HPRV08-DAC Piloting HLE10-CVO

Fan Motor

HLE10-CVO

HPRV08-DAC
[350 bar]

80 LPM

To system

Pump unloading

To circuit A   To circuit B

Selector valve
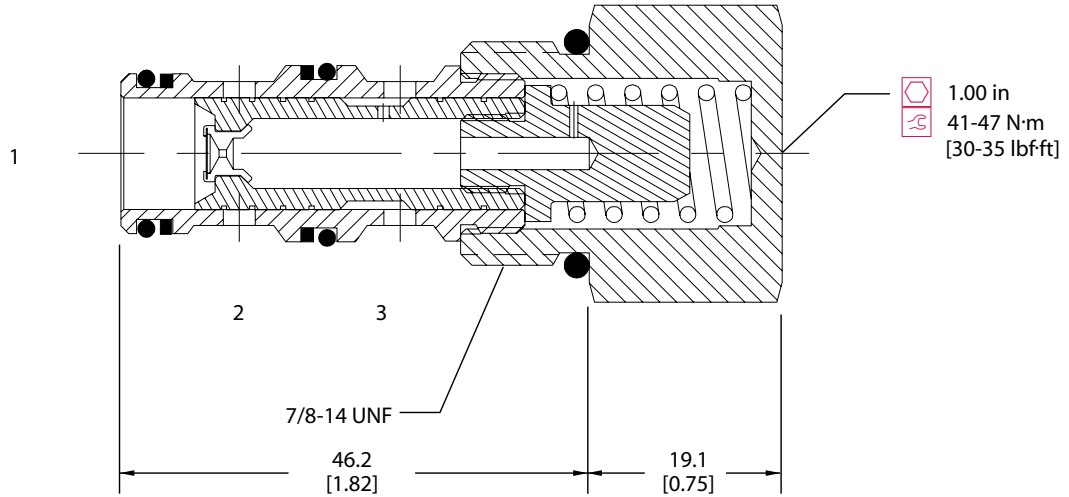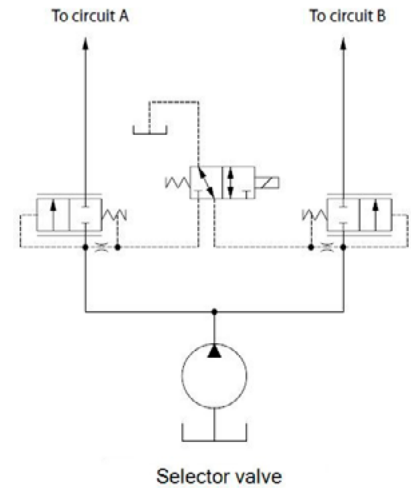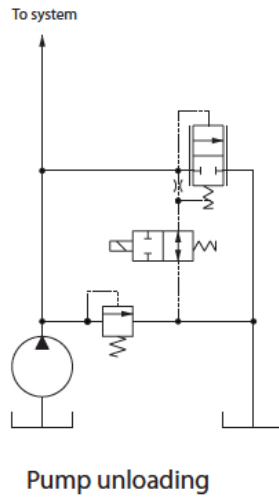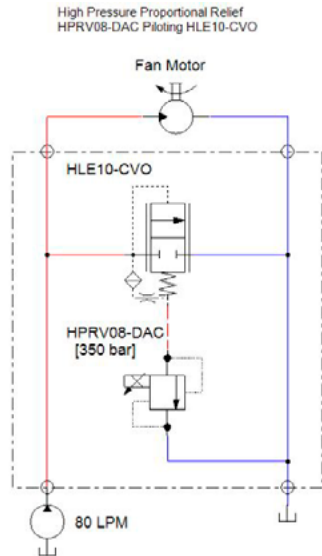
ORDERING
INFORMATION

CP700 - 2 - B - 8S 080

Seals

		Seal kit
B	= Buna-N	120027
V	= Viton	120028

Housing and ports

		Housing P/N
0	= No Housing	No Housing
SE3B	= AL, 3/8 BSP	SDC10-3-SE-3B
SE4B	= AL, 1/2 BSP	SDC10-3-SE-4B
6S	= AL, #6 SAE	CP10-3-6S
8S	= AL, #8 SAE	CP10-3-8S

Other housings available

Differential
Control
Pressure

	bar	[psi]
040	= 2.8	[40]
080	= 5.5	[80]
110	= 7.6	[110]
150	= 10.3	[150]
190	= 11.7	[190]