



Logic Elements Technical Information

Spool Type CP701-2

OPERATION

The CP701-2 is a 12-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

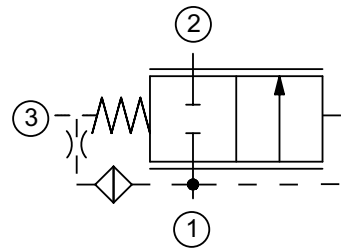
Common applications include: pump unloading, pilot-operated relief valve (mechanical or proportional), sequence valve and selector circuit. Effective use of logic elements is a key to designing cost-effective circuits, and is limited only by the imagination of the designer.

SPECIFICATION

| | |
|-------------------------------|---------------------------|
| Rated pressure* | 350 bar [5075 psi] |
| Rated flow at 7 bar [100 psi] | 150 l/min [40 US gal/min] |
| Weight | 0.26 kg [0.57 lb] |
| Cavity | CP12-3S |

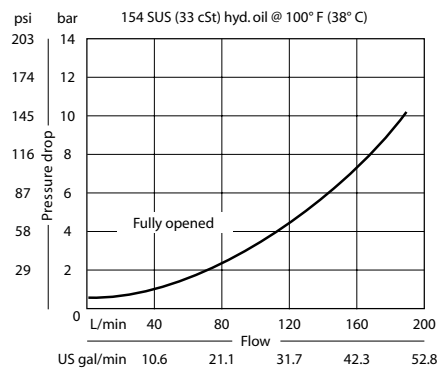
* Rated Pressure based on NFPA fatigue test standards (at 1 Million Cycles).

SCHEMATIC



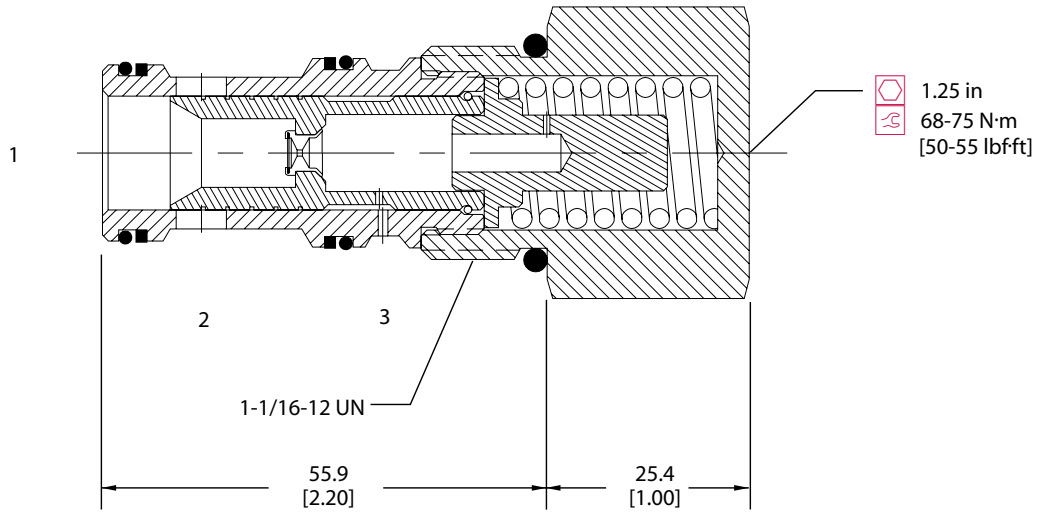
PERFORMANCE CURVE

Theoretical performance

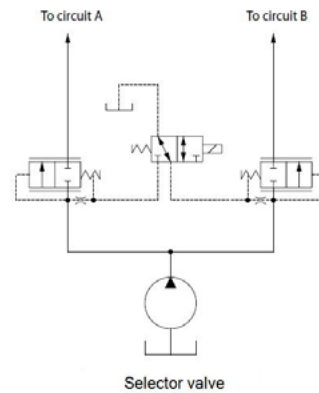
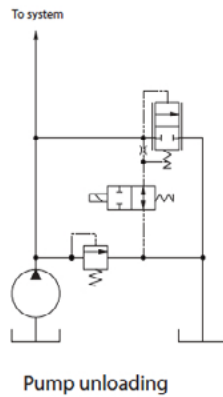
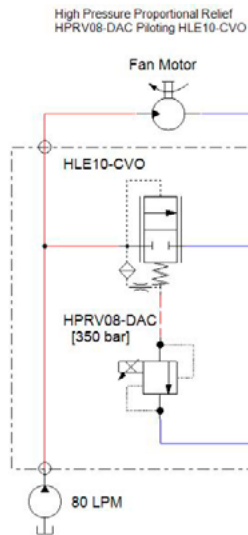


DIMENSION
mm [in]

Cross-sectional view



EXAMPLE CIRCUITS



ORDERING INFORMATION

CP701 - 2 - B - 12S - 080

Seals

B = Buna-N
V = Viton

Seal kit
120335
120336

Housing and ports

0 = No housing
4B = AL, 1/2 BSP
6B = AL, 3/4 BSP
10S = AL, #10 SAE
12S = AL, #12 SAE
other housings available

Housing P/N

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

Pilot port

Differential Control Pressure

| | bar | [psi] |
|-----|------|-------|
| 030 | 2.1 | [30] |
| 050 | 3.5 | [50] |
| 080 | 5.5 | [80] |
| 100 | 6.9 | [100] |
| 150 | 10.3 | [150] |