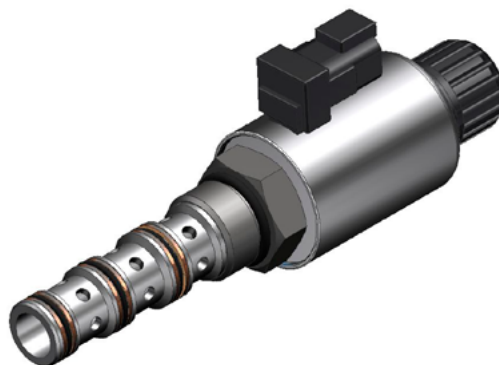


OPERATION

This is a solenoid valve, spool-type, 4-way, 2-position, 12-size. When de-energized, the CP531-21 allows flow from port 3 to port 4, and from port 2 to port 1. When energized, flow is allowed from port 3 to port 2, and from port 4 to port 1. Follow the "Operating Envelope" limits to ensure shifting of the valve during operation.

APPLICATIONS

These valves are primarily used in mobile and industrial applications for controlling the direction of the flow in a circuit, like motors or cylinders. Solenoid spool-type valves are direct acting and respond quickly to coil voltage input. Spool valves will have some leakage due to spool clearance, so if your application requires no leakage at the working port(s), apply a low leakage poppet valve(s), like PO check valve, counterbalance valve, etc., in addition to this solenoid valve.

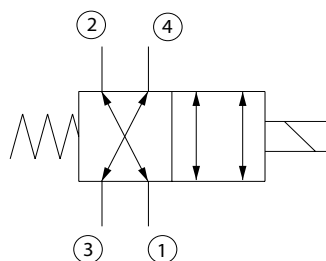


SPECIFICATIONS

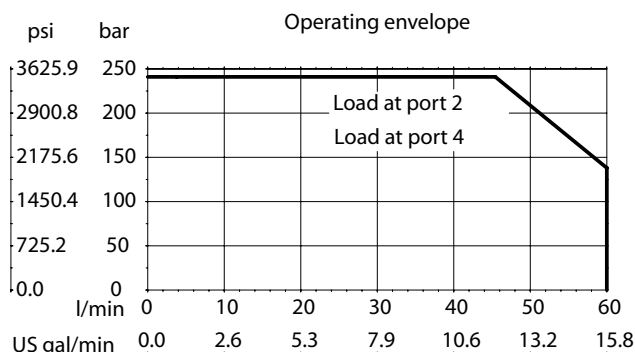
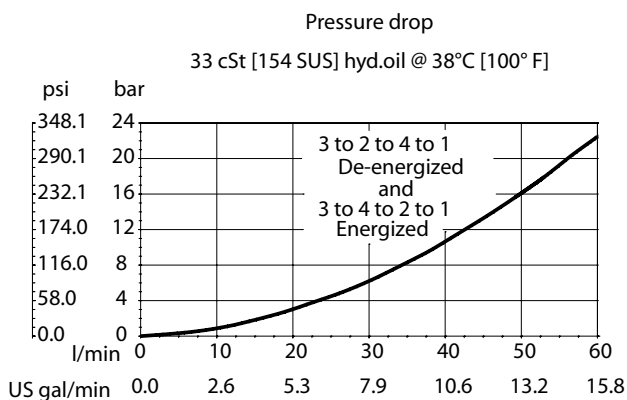
| | |
|-------------------------------|---------------------------------------|
| Rated pressure* | 240 bar [3500 psi]* |
| Rated flow at 7 bar [100 psi] | 32 l/min [8 US gal/min] |
| Weight | 0.82 kg [1.81 lb] |
| Cavity | SDC12-4 |
| Robust Coil (Standard) | D14E 30 Watt Robust Nut P/N 321567 |

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

SCHEMATIC



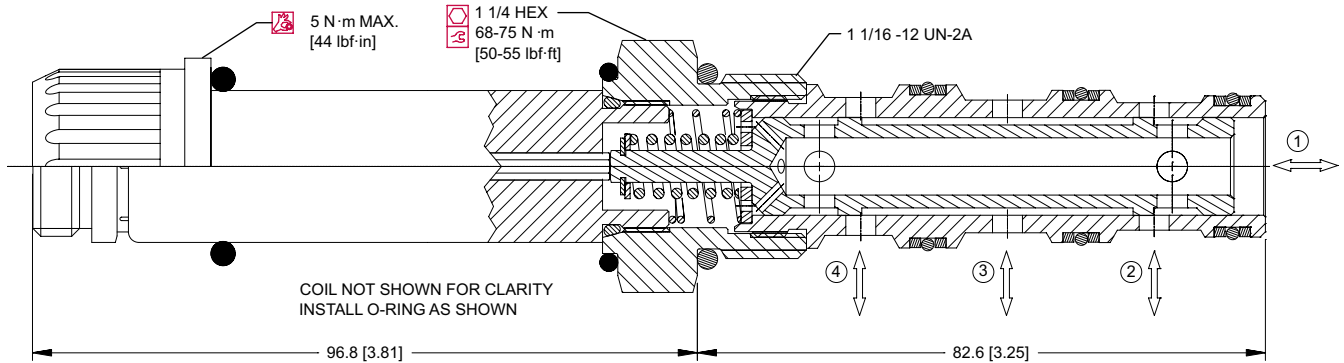
PERFORMANCE CURVES



DIMENSIONS

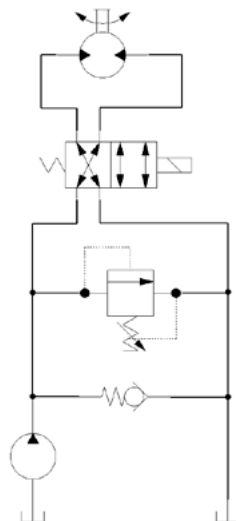
mm [in]

Cross-sectional view



EXAMPLE CIRCUITS

Bi-directional Motor



ORDERING INFORMATION

CP531-21-B-10S-24D-S

Seals

B = Buna-N
V = Viton

Seal kit
120262
120263

Housing and ports

0 = No Housing
3B = AL, 3/8 BSP
4B = AL, 1/2 BSP
10S = AL, #10 SAE
12S = AL, #12 SAE

Other housings available

Housing P/N

No Housing
CP12-4-3B
CP12-4-4B
CP12-4-10S
CP12-4-12S

Termination

0 = No connector
S = Spade
L = Lead wire
H = DIN 43650
M2 = Metripak 150, Type 1
DE = Deutsch
AJ = Amp Junior

Coil Voltage

000 = No coil
12D = 12 VDC
24D = 24 VDC