

Logic Elements

PCS14-16

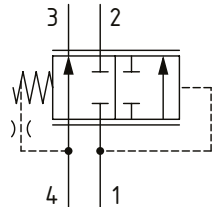
Pressure Compensator, Priority Type

350 bar [5000 psi] • 114 l/min [30 US gpm]

DESCRIPTION AND OPERATION

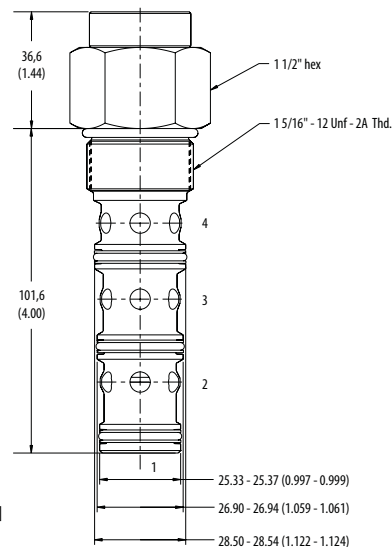
This is a 4-ported spool valve where flow from port 1 to port 2 is blocked and port 4 is connected to port 3. The spring chamber is connected to port 4 through an orifice in the spool. When port 4 is connected to the outlet of a control orifice and port 1 is connected upstream of the orifice, the valve functions as a priority pressure compensator. When the pressure drop across the orifice is equal to the spring set pressure, the spool begins to restrict the flow to port 3, while opening port 1 to port 2 to allow excess flow to pass to another part of the circuit. If the pressure in the second part of the circuit rises above the pressure in port 3, the spool will move back to restrict the flow from port 1 to port 2 and maintain the priority flow to port 3 regardless of pressure changes between port 3 and port 2. These valves are ideal for use in circuits where a priority flow is needed to a function while allowing the excess flow to be used for other purposes.

SCHEMATIC



DIMENSIONS

mm [in]



Installation torque

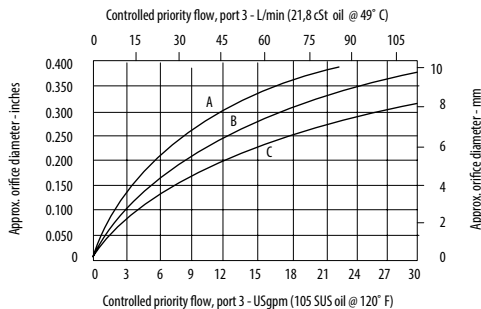
A-108-122 Nm [80-90 ft. lbs]

S-136-149 Nm [100-110 ft. lbs]

PERFORMANCE DATA

| | |
|----------------|-----------------------|
| Rated pressure | 350 bar [5000 psi] |
| Rated flow | 114 l/min [30 US gpm] |
| Weight | 0.50 kg [1.12 lb] |
| Cavity | SDC16-4 |

PERFORMANCE CURVES



A-2.8 bar [40 psi] • B-5.5 bar [80 psi] • C-11.0 bar [160 psi]

MODEL CODE

PCS14 - 16 - V - A - 4G - 40

Seal Option

| Code | Seal kit |
|---------------|-----------|
| Omit-Buna - N | 889660 |
| V-Viton | 02-175435 |

Housing Material

Omit-No housing
A-Aluminum
S-Steel

Housing

| Code | Ports | Aluminum Standard duty | Aluminum Heavy duty | Steel |
|------|------------|------------------------|---------------------|-----------|
| 0 | No housing | | | |
| 10T | #10 SAE | | | 02-175141 |
| 12T | #12 SAE | 566411 | | 02-175142 |
| 6B | 3/4" BSP | 02-175468 | | |
| 10H | #10 SAE | | 876729 | |
| 12H | #12 SAE | | 876731 | |
| 4G | 1/2" BSP | | 876728 | 02-175143 |
| 6G | 3/4" BSP | | 876730 | 02-175144 |

* Aluminum bodies are to be used for pressures less than 210 bar [3000 psi].

* Additional housings available

Differential Pressure

| Code | Bar | Psi |
|------|------|-------|
| 40 | 2.8 | [40] |
| 80 | 5.5 | [80] |
| 160 | 11.0 | [160] |