Logic Elements
PCS14-12
Pressure Compensator, Priority Type
350 bar [5000 psi] • 58 l/min [15 US gpm]

Danfoss

## ■ 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.
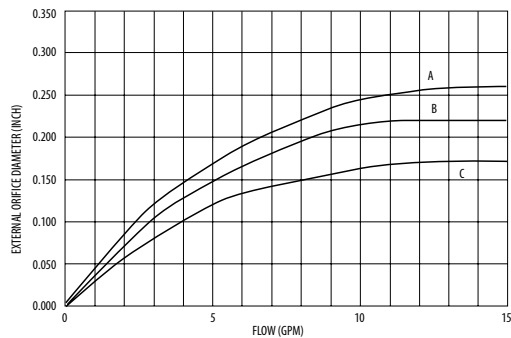
■ SCHEMATIC

■ DIMENSIONS

mm [in]

22,86 (0.900)
1.25" hex (31.75)
1 1/16" - 12 Un - 2A Thd.
4
91,69 (3.610)
3
2
1
-A-
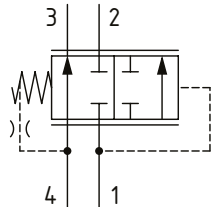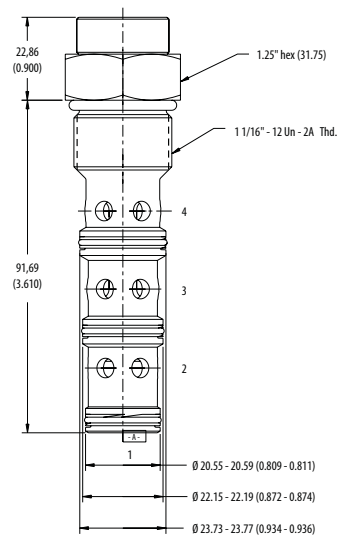
Installation torque
A-81-95 Nm [60-70 ft. lbs]
S-102-115 Nm [75-85 ft. lbs]

Ø 20.55 - 20.59 (0.809 - 0.811)
Ø 22.15 - 22.19 (0.872 - 0.874)
Ø 23.73 - 23.77 (0.934 - 0.936)

■ PERFORMANCE DATA

Rated pressure	350 bar [5000 psi]
Rated flow	58 l/min [15 US gpm]
Weight	0.36 kg [0.80 lb]
Cavity	C-12-4

■ PERFORMANCE CURVES

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

■ MODEL CODE

PCS14 - 12 - **V** - **A** - **4G** - **40**

Seal Option

Code	Seal kit
Omit-Buna - N	9900335-000
V-Viton	9900336-000

Housing Material

Omit-No housing
A-Aluminum
S-Steel

Differential Pressure

Code	Bar	Psi
40	2.8	[40]
80	5.5	[80]
120	8.3	[120]
160	11.0	[160]

Housing

Code	Ports	Aluminum	Heavy duty	Steel
0	No housing			
4G	1/2" BSP	5986431-001		
6G	3/4" BSP	5986432-001		5991073-001
8H	#8 SAE	5986433-001		
10H	#10 SAE	5986434-001		5991074-001
12H	#12 SAE	5986436-001		5991075-001

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