Flow Control Valves

PFR5-8

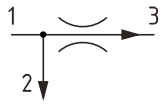
Flow Control, Fixed, Pressure Compensated, Priority Type

350 bar [5000 psi] • 9.5 l/min [2.5 US gpm]

DESCRIPTION AND OPERATION

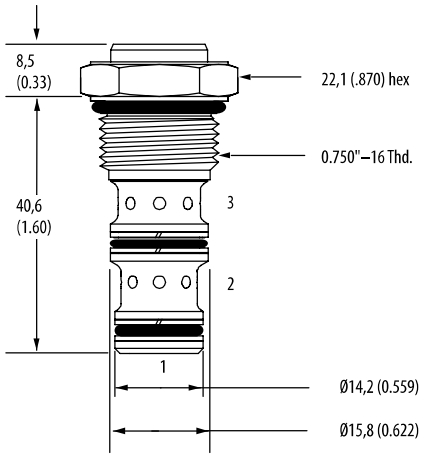
This is a fixed, priority type, pressure compensated flow control valve, where the flow from port 3 will remain constant regardless of the pressure difference across the valve, while excess flow passes from port 1 to 2. Flow enters at port 1 and passes across a fixed orifice in the spool, which creates a pressure drop. This causes the spool to move back against the spring, which then restricts the outlet flow. Port 1 then opens to port 2 to allow excess flow to pass. The regulated flow will always take priority and remains constant if the working pressure is higher in either port 2 or port 3.

SCHEMATIC



DIMENSIONS

mm [in]



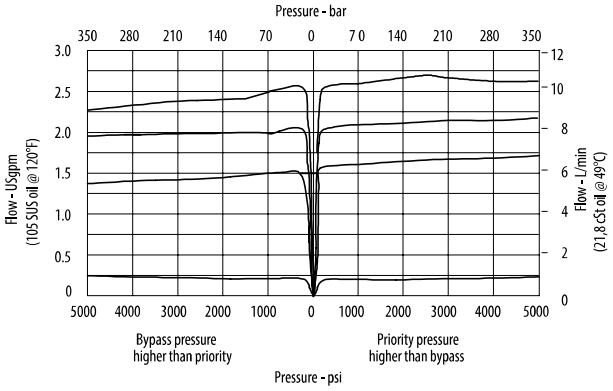
Installation Torque:
34–41 Nm [25–30 ft. lbs]

PERFORMANCE DATA

Rated pressure	**350 bar [5000 psi]**
Rated flow	**9.5 l/min [2.5 US gpm]**
Max inlet flow	15.1 l/min [4.0 US gpm]
Flow range	0.4–9.5 l/min [0.1–2.5 US gpm]
Flow accuracy	0.4–1.9 l/min [0.1–0.49 US gpm] ±20% @ 210 bar [3000 psi] 0.4–1.9 l/min [0.1–0.49 US gpm] ±40% @ 350 bar [5000 psi] 1.9–5.7 l/min [0.5–1.49 US gpm] ±15% @ 350 bar [5000 psi] 5.7–9.5 l/min [1.5–2.5 US gpm] ±10% @ 350 bar [5000 psi]
Weight	0.07 kg [0.15 lb]
Cavity	SDC08-3

PERFORMANCE CURVES

Flow Compensation



MODEL CODE

PFR5 - 8 - V - F - S - 4T - 1.0

Seal Option

Code	
Omit-Buna - N	02-173427
V-Viton	02-173434

Adjustment Option

F - Fixed

Housing Material

Omit - No housing
S - Steel
A - Aluminium

Flow Setting

Code - Flow in US gpm
Specity in 0.1 gpm increments within flow range
Example

Code	l/min	[US gpm]
1.0	4.0	1.0

Housing

Code	Ports	Aluminium Heavy duty	Steel Heavy duty
0	No housing		
4T	#4 SAE	02-160741	02-160745
6T	#6 SAE	02-160742	02-160746
2G	1/4" BSP	02-160739	02-160743
3G	3/8" BSP	02-160740	02-160744

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