

Logic Elements

PFRD-12

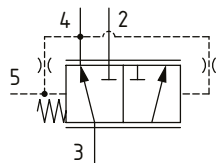
Pressure Compensator, Load Sense, Dynamic, Priority Type

280 bar [4000 psi] • 76 l/min [20 US gpm]

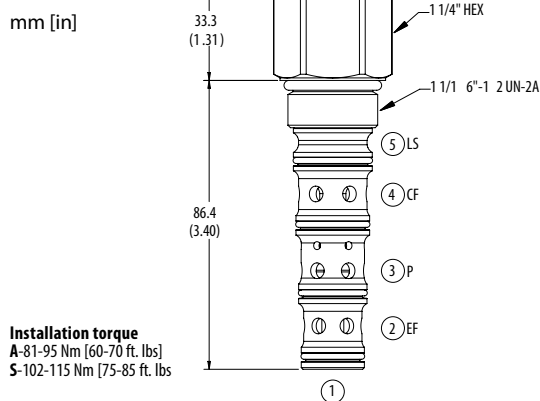
DESCRIPTION AND OPERATION

This is a 5-ported, dynamic, priority load sense pressure compensator that supplies fluid on demand to an actuator or a steering valve. Flow passes from the inlet port 3 to the controlled flow port 4. Pressure in port 4 is connected to port 1 (which is plugged) through an orifice and to port 5. When the pressure in port 1 is higher than the load sense pressure in port 5, the spool moves against the spring and begins to open port 2 and allows excess flow to pass to the rest of the system. When the flow is no longer required through the controlled port and the load sense line falls, all of the oil will pass to the excess flow port 2. Some oil will pass from port 5 to port 1, which provides additional stability to the system.

SCHEMATIC



DIMENSIONS



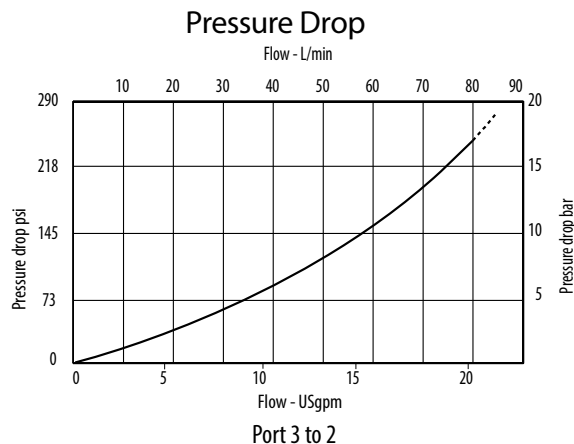
PERFORMANCE DATA

| | |
|-----------------------|---|
| Rated pressure | 280 bar [4000 psi] |
| Rated flow | 76 l/min [20 US gpm] |
| Leakage | 164 ml/min [10 in ³ /min] @ 210 bar [3000 psi] |
| Weight | 0.36 kg [0.79 lb] |
| Cavity | C-12-5S |

Note: Port 1 is unused and should be plugged.

Note: Minimum inlet flow should not be less than 1/4 maximum of inlet flow.

PERFORMANCE CURVES



MODEL CODE

PFRD - 12 - U - A - 10T - 075

Seal Option

| Code | Seal kit |
|------------|------------|
| U-Urethane | 202914-921 |

Housing Material

0-No housing
A-Aluminum
S-Steel

Housing

| Code | Port 2, 3 & 4 | Port 5 | Aluminum | Steel |
|------|---------------|----------|-------------|-------------|
| 000 | No housing | | | |
| 10T | #10 SAE | #4 SAE | 4998820-001 | 4998821-001 |
| 12T | #12 SAE | #4 SAE | 4998820-002 | 4998821-002 |
| 04G | 1/2" BSP | 1/4" BSP | 4998820-003 | 4998821-003 |
| 06G | 3/4" BSP | 1/4" BSP | 4998820-004 | 4998821-004 |

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

* Additional housings available

Differential Pressure

| Code | Bar | Psi |
|------|------|-------|
| 075 | 5.2 | [75] |
| 110 | 7.6 | [110] |
| 145 | 10.0 | [145] |