



This valve is a pilot-operated, normally closed, electro-proportional throttle with reverse free-flow check. Energizing the coil generates an opening force on the pilot stage which vents the main stage poppet to open proportionally, allowing flow from port 2 to 1. The check will allow flow from 1 to 2 in either the open or closed condition.

**TECHNICAL DATA** NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

|  |                                      |
|--|--------------------------------------|
| Maximum Operating Pressure                   | 3000 psi                             |
| Hysteresis (with dither)                     | 15%                                  |
| Linearity (with dither)                      | 3%                                   |
| Recommended dither frequency                 | 140 Hz                               |
| Check Cracking Pressure                      | 100 psi                              |
| Deadband, nominal (as a percentage of input) | 48%                                  |
| Maximum Valve Leakage at 110 SUS (24 cSt)    | 0.004 in <sup>3</sup> /min.@3000 psi |
| Viscosity Range                              | 35 - 2000 SUS                        |
| Response Time - Typical                      | 50 ms                                |
| Switching Frequency                          | 15,000 max. cycles/hr                |
| Seal kit - Cartridge                         | Buna: 990-162-007                    |
| Seal kit - Cartridge                         | Viton: 990-162-006                   |

- NOTES:**
- Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.
  - An additional 2.00 inches (50,8 mm) beyond the valve extension is needed for coil installation and removal.

**CONFIGURATION OPTIONS**

**Model Code Example: FPBEXDN**

| CONTROL              | (X) | FLOW RATE   | (D) | SEAL MATERIAL       | (N) | COIL *   |
|----------------------|-----|---|-----|---------------------|-----|--|
| X No Manual Override |     | D Nominal 5 gpm @ 200 psi (14 bar) differential (20 L/min.) |     | N Buna-N<br>V Viton |     | No coil<br>* Additional coil options are available |