

**Special features:**

- Diaphragm-sealed piston actuator for long, reliable service
- Choice of wetted materials and pressure connections for all applications
- Watertight anodized aluminum body for environmental protection
- Hermetically sealed snap-acting switch element
- Field adjustable
- Standard 1/2 NPT Male electrical conduit connection
- Factory sealed leads
- Directly interchangeable with many similar models for convenience
- UL and CSA listed standard
- Setpoints adjustable from 15-100% of range. Exception: stainless steel welded (codes) adjustable from 20-100%

**1 - FUNCTION**

FPS - Pressure switch, single setpoint, fixed deadband, field adjustable

**2 - ENCLOSURE (BODY)**

N7 - NEMA 3, 4, 7 & 9, IP66  
Anodized aluminum for hazardous locations

**3 - SWITCH ELEMENT CODE**

| Code | SPDT Switch Elements<br>UL/CSA Listed |                                |
|------|---------------------------------------|--------------------------------|
| P    | Hermetically Sealed, Narrow Deadband  | 5A, 125/250 Vac                |
| J    | Hermetically Sealed, General Purpose  | 11A, 125/250 Vac<br>5A, 30 Vdc |
| L    | Hermetically Sealed, Gold Contacts    | 1A, 125 Vac                    |

**4 - ACTUATOR SEAL**

| Code | Material                  | Proc. Temp. Limits (°F) |
|------|---------------------------|-------------------------|
| B    | Buna N                    | 0-150                   |
| V    | Viton                     | 20-200                  |
| T    | Teflon                    | 0-150                   |
| R    | SS Diaphragm/Viton O-Ring | 0-150                   |
| S    | 316 SS Welded             | 0-200                   |
| H    | SS Piston/Viton O-Ring    | 20-200                  |

**5 - PRESSURE CONNECTION**

| Code | Description               |
|------|---------------------------|
| 25   | 1/4 NPT Female            |
| 07   | 1/2 NPT Female (Standard) |

**6 - F-SERIES OPTIONS**

| Code | Description                |
|------|----------------------------|
| XFP  | Fungus proofing            |
| XFS  | Factory adjusted setpoint  |
| XK3  | Terminal blocks            |
| XNH  | Tagging stainless steel    |
| X6B  | Cleaned for oxygen service |

Ideal for pressure alarm, shutdown, control on:

- Engines and compressors
- Process applications
- Offshore applications
- Panels
- Pipelines
- Hazardous locations
- Corrosive environments
- Machine tools
- Replacement and retrofit
- Where size is a consideration or equipment is being downsized


**7A - NOMINAL RANGE & PERFORMANCE TABLE – BUNA (CODE B)**

| Nominal Range  |     | Proof Pressure | Deadband (by Switch Element) |          |
|----------------|-----|----------------|------------------------------|----------|
| psi            | bar | psi            | Code J                       | Code P,L |
| 30 in.Hg Vac.† | -1  | 1000           | 1.8-8.0                      | 0.4-5.0  |
| 30             | 2   | 1000           | 0.2-1.5                      | 0.1-1.3  |
| 60             | 4   | 1000           | 0.2-2.5                      | 0.3-1.5  |
| 100            | 7   | 1000           | 0.5-4.0                      | 0.5-2.5  |
| 200            | 14  | 1000           | 1.5-8.0                      | 0.5-5.0  |
| 400            | 28  | 1600           | 1.0-15.0                     | 1.5-9.0  |
| 600            | 40  | 2400           | 4.0-28.0                     | 2.0-15.0 |
| 1000           | 70  | 4000           | 6.0-50.0                     | 3.0-30.0 |

**7B - NOMINAL RANGE & PERFORMANCE TABLE – HIGH PRESSURE (CODE H)**

| Nominal Range (psi) | Nominal Range (bar) | Proof Pressure (psi) | Deadband (Code J) | Deadband (Code P,L) |
|---------------------|---------------------|----------------------|-------------------|---------------------|
| 1000                | 70                  | 12,000               | 50-100            | N/A                 |
| 2000                | 140                 | 12,000               | 100-200           | N/A                 |
| 3000                | 210                 | 12,000               | 150-300           | N/A                 |
| 4000                | 280                 | 16,000               | 150-350           | N/A                 |

**7C - NOMINAL RANGE & PERFORMANCE TABLE – WELDED SS (CODE S)**

| Nominal Range (psi) | Nominal Range (bar) | Proof Pressure (psi) | Deadband (Code J) | Deadband (Code P,L) |
|---------------------|---------------------|----------------------|-------------------|---------------------|
| 30                  | 2                   | 1000                 | 1.0-4.5           | 0.5-3.5             |
| 60                  | 4                   | 1000                 | 1.0-5.0           | 0.5-4.0             |
| 100                 | 7                   | 1000                 | 1.5-10.0          | 1.0-6.0             |
| 200                 | 14                  | 1000                 | 2.0-18.0          | 1.0-12.0            |
| 400                 | 28                  | 1600                 | 5.0-32.0          | 2.0-20.0            |
| 600                 | 40                  | 2400                 | 9.0-50.0          | 4.0-30.0            |
| 1000                | 70                  | 4000                 | 15.0-80.0         | 7.0-50.0            |

**7D - NOMINAL RANGE & PERFORMANCE TABLE – BUNA (CODE V, T, R)**

| Nominal Range (psi) | Nominal Range (bar) | Proof Pressure (psi) | Deadband (Code J) | Deadband (Code P,L) |
|---------------------|---------------------|----------------------|-------------------|---------------------|
| 30 in.Hg Vac.†      | -1                  | 1000                 | 1.5-10.0          | 0.5-7.0             |
| 30                  | 2                   | 1000                 | 0.5-3.5           | 0.2-2.5             |
| 60                  | 4                   | 1000                 | 0.5-4.0           | 0.5-3.0             |
| 100                 | 7                   | 1000                 | 1.0-7.0           | 1.0-4.5             |
| 200                 | 14                  | 1000                 | 12.5-12.0         | 1.0-8.5             |
| 400                 | 28                  | 1600                 | 5.0-30.0          | 2.0-17.0            |
| 600                 | 40                  | 2400                 | 8.0-48.0          | 4.0-34.0            |
| 1000                | 70                  | 4000                 | 10.0-80.0         | 5.0-55.0            |

Note: Switches calibrated at 70°F reference.

**TO ORDER THIS F-SERIES PRESSURE SWITCH:**

Select: \_\_\_\_\_ FPS N7 P B 07 XFS 30#

1. Function: \_\_\_\_\_

2. Body: \_\_\_\_\_

3. Switch Element (Table 3): \_\_\_\_\_

4. Actuator Seal (Table 4): \_\_\_\_\_

5. Pressure Port: Standard 1/2 NPTF \_\_\_\_\_

6. Options (see table 6): \_\_\_\_\_

7. Nominal Range (see Tables 7A, 7B, 7C, 7D): \_\_\_\_\_

Consult factory for guidance in product selection  
Phone (203) 385-0217, Fax (203) 385-0602 or  
visit our web site at [www.ashcroft.com](http://www.ashcroft.com)