

F-Series Pressure Switches

FEATURES

- Explosion proof enclosure with hermetically sealed micro switches
- Dual chamber for safety
- Precision SPDT or DPDT snap-acting micro switch
- Setpoint adjustable from 15-100% of range
- Wide selection of switch elements

TYPICAL USES

- Offshore oil rigs
- Chemical and petrochemical plants
- Water and wastewater pressure control
- Pulp and paper
- Pipelines
- Corrosive and hazardous locations
- Engines, compressors and turbines
- Specialized OEM equipment



F-Series
Explosion-Proof Enclosure



SPECIFICATIONS

Setpoint Repeatability:	±1% of span (additional setpoint shift of ±1% of range per 50 °F from initial setpoint set at 70 °F typical)
Switch Type:	1 SPDT or 2 SPDT acting as DPDT
Setpoint:	Single setpoint - Factory set or field adjustable
Deadband:	Fixed
Ambient Temperature Range:	-20 °F to 150 °F
Enclosure Ratings:	NEMA 3, 4, 7, 9, IP66
Enclosure Material	Anodized aluminum
Electrical Connection:	½ NPT Male with 18" wire leads
Process Connection	¼ NPT Female, ½ NPT Female
Size:	
Approvals:	UL, CSA, CE/UKCA



CLASS I DIV 1, DIV 2 GROUPS A, B, C, & D
CLASS I-I DIV 1 GROUPS E, F, & G

WETTED COMPONENTS

Actuator Seal	Process Connection
Buna-N, Teflon™, Viton™, 316L SS, Stainless steel Piston/Viton™ O-Ring	316 Stainless steel

KEY BENEFITS

- Compact design
- Hermetically sealed micro switches offer improved reliability and safety
- Designed for applications such as alarm, shutdown, control and interlock

Data Sheet

F-Series Pressure Switches

NOMINAL RANGE AND PERFORMANCE TABLE Buna-N (CODE B)				
Nominal Ranges		Proof Press.	Deadband (by Switch Element)	
psi	bar		Code J	Code P, L
30 IMV	-1	1,000	1.8-8.0	0.4-5.0
30#	2	1,000	0.2-1.5	0.1-1.3
60#	4	1,000	0.2-2.5	0.3-1.5
100#	7	1,000	0.5-4.0	0.5-2.5
200#	14	1,000	1.5-8.0	0.5-5.0
400#	28	1,600	3.0-15.0	1.5-9.0
600#	40	2,400	4.0-28.0	2.0-15.0
1000#	70	4,000	6.0-50.0	3.0-30.0

NOMINAL RANGE AND PERFORMANCE TABLE HIGH PRESSURE (CODE H)				
Nominal Ranges		Proof Press.	Deadband (by Switch Element)	
psi	bar		Code J	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

NOMINAL RANGE AND PERFORMANCE TABLE WELDED STAINLESS STEEL (CODE S)				
Nominal Ranges		Proof Press.	Deadband (by Switch Element)	
psi	bar		Code J	Code P, L
30#	2	1,000	1.0-4.5	0.5-3.5
60#	4	1,000	1.0-5.0	0.5-4.0
100#	7	1,000	1.5-10.0	1.0-6.0
200#	14	1,000	2.0-18.0	1.0-12.0
400#	28	1,600	5.0-32.0	2.0-20.0
600#	40	2,400	9.0-50.0	4.0-30.0
1000#	70	4,000	15.0-80.0	7.0-50.0

NOTE: Setpoint adjustability for welded Stainless steel is 20-100% of range increasing

NOMINAL RANGE AND PERFORMANCE TABLE VITON™, TEFLON™, SS w/VITON™ O-RING (CODES V, T & R)				
Nominal Ranges		Proof Press.	Deadband (by Switch Element)	
psi	bar		Code J	Code P, L
30 IMV	-1	1,000	1.5-10.0	0.5-7.0
30#	2	1,000	0.5-3.5	0.2-2.5
60#	4	1,000	0.5-4.0	0.5-3.0
100#	7	1,000	1.0-7.0	1.0-4.5
200#	14	1,000	2.5-12.0	1.0-8.5
400#	28	1,600	5.0-30.0	2.0-17.0
600#	40	2,400	8.0-48.0	4.0-34.0
1000#	70	4,000	10.0-80.0	5.0-55.0

Data Sheet

F-Series Pressure Switches

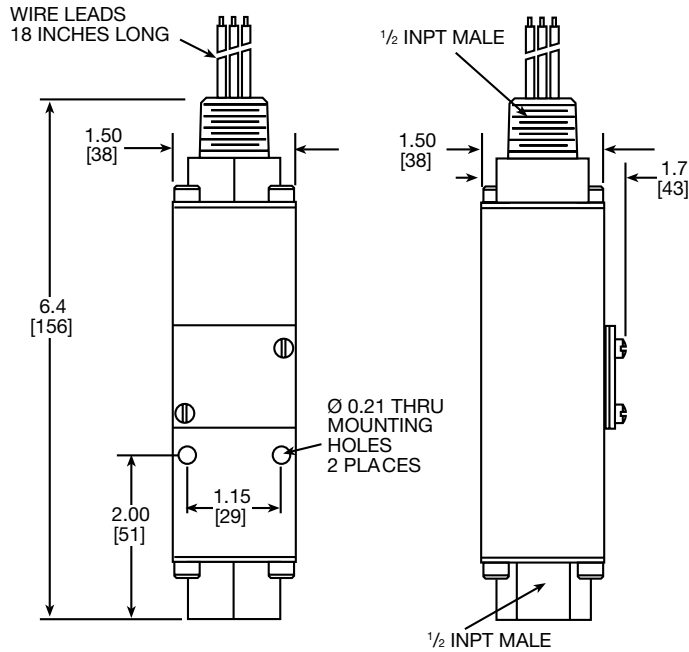
ORDERING CODE	Example:	FPS	N7	P	B	25	XFS	100#
Function								
FPS - Single setpoint, fixed deadband		FPS						
Enclosure								
N7 - NEMA 3, 4, 7, 9 & IP66, anodized aluminum for hazardous locations N7								
Switch Elements, UL/CSA Listed								
P - Hermetically sealed, narrow deadband - 5A, - 125/250 Vac				P				
J - Hermetically sealed, general purpose - 11A, - 125/250 Vac, 5A, 30Vdc								
L - Hermetically sealed, gold contacts, 1A - 125 Vac								
JJ - Dual hermetically sealed, general purpose, 11A, 125/250 Vac, 5A, 30 Vdc								
LL - Dual hermetically sealed, gold contacts, 1A - 125 Vac								
Actuator Seal								
	Temperature Limits							
Material	Ambient	Process						
B - Buna-N	-20 °F to 150 °F	0 °F to 150 °F		B				
V - Viton™	-20 °F to 150 °F	20 °F to 200 °F						
T - Teflon™	-20 °F to 150 °F	0 °F to 150 °F						
R - SS diaphragm/Viton™ O-ring	-20 °F to 150 °F	0 °F to 150 °F						
S - 316L Stainless steel	-20 °F to 150 °F	20 °F to 200 °F						
H - SS piston/Viton™ O-ring	-20 °F to 150 °F	20 °F to 200 °F						
Process Connections								
25 - ¼ NPT Female						25		
07- ½ NPT Female								
20 - 7/16-20 SAE, Female								
Options (if choosing an option(s) must include an "X")							X_ _	
FP - Fungus proofing								
FS - Factory adjusted setpoint							FS	
K3 - Terminal blocks								
LE - 6ft wire leads								
NH - Stainless steel tag								
6B - Clean for oxygen service								
C4 - Traceable calibration certificate								
Pressure Range (select from pressure range table on page 2)								
100# - 100 psi								100#

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DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Pressure Switch



Pressure Switch with XK3

