

A-Series Miniature Pressure Switch



RELIABLE IN –

- *Offshore oil rigs*
- *Chemical and petrochemical plants*
- *Pulp and paper mills*
- *Special equipment*
- *Food and pharmaceutical*
- *Rail and heavy vehicle hydraulic and pneumatic braking*
- *Other special machinery and equipment*

The Ashcroft® A-Series switch line is designed for alarm, shutdown, control and interlock applications for a wide variety of processes and equipment. Materials of construction have been selected for long life. Precision snap acting switch elements are featured and an optional glass to metal seal is offered for added reliability and safety in the toughest applications. The actuators we use have been proven in more than 20 years of service in the world's plants and mills. Special designs are available for food, pharmaceutical and high purity applications. Simplicity and ease of use are stressed to improve reliability of the installation.

Sealed Switch Element

We recommend optional sealed switch element for improved reliability. The sealed switch provides uncompromising contact protection in harsh or corrosive environments, such as that found in off shore platforms, off-road equipment, outdoor plants and mills, and equipment that is washed down or is subject to frequent temperature changes.

Ashcroft® supplies highly reliable switches and controls for industrial and process applications. We begin with rock-solid designs, matching the most appropriate technology with the safety and reliability requirements of the applications. The materials of construction are specified to Dresser's exacting standards, and product is built to last in the toughest applications. Our modern, responsive manufacturing facility in Connecticut is supported by an extensive network of stocking distributors and factory sales offices located in virtually every part of the world. Special application assistance is always just a telephone call away.

A-Series Miniature Pressure Switch



A-SERIES WELDED STAINLESS STEEL BODY PRESSURE SWITCH MODEL NUMBER:
To specify the exact switch desired select entries from appropriate tables as shown in example below.

1	2	3	4	5	6	7
A	P	S	N	7	D	C
S	0	2	X	6	B	30 PSI

1 – FUNCTION
APS – Pressure switch, single setpoint, fixed deadband, factory set
APA – Pressure switch, single setpoint, fixed deadband, field adjustable

2 – ENCLOSURE (BODY)
NS – Watertight stainless steel body with glass-to-metal switch seal
RS – Watertight stainless steel body with polycarbonate switch seal
N7 – Explosion proof body with glass to metal switch seal ⁽¹⁾

3A – SWITCH ELEMENT CODE		
CODE	S.P.D.T. Switch Elements UL/CSA Listed	
D	General Purpose	5A, 125/250 Vac 5A, 28 Vdc
M	Gold Contacts	1A, 125 Vac

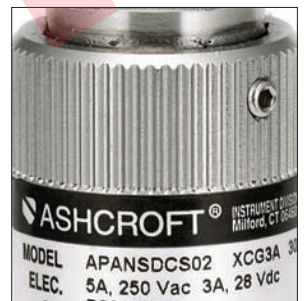
3B – ELECTRICAL CONNECTION CODE	
CODE	Electrical Terminations
L	Wire leads, 3-#18 AWG Insul. – 12"
S	Screw terminals, 3-#6 binding head screw
T	Spade terminal, 3-187 male spade
C	½ NPT male conduit connection with wire leads ⁽²⁾
H	Micro DIN connector

4 – ACTUATOR SEAL		
Code	Material	Process Temperature Limits* °F)
S	316 Stainless Steel Welded	0-200
H	Stainless Steel Piston/ Viton O-ring	20-200

5 – PRESSURE PORT	
Code	Description
00	Flush Diaphragm, 316 SS
01	¼ NPT Male
02	¼ NPT Male
03	¼ NPT Female
04	¼ NPT Female
05	7⁄16-20 SAE
06	VCR
07	VCO
09	¾ TriClamp Connection

6 – F-SERIES OPTIONS	
CODE	DESCRIPTION
XFS	Factory Adjusted Setpoints
XNH	Tagging Stainless Steel
X6B	Clean for Oxygen Service
X3A	1½" or 2" Tri-Clover connection with 3A approval

NOTES:
1. Available with 1/2 NPT male conduit connection only. (Code C)
2. Available only with glass-to-metal switch seal. (Enclosures NS or N7)



Note: Stainless steel APA NS and N7 models have set screws to lock setpoint into place – to avoid accidental change in the field.

7A – NOMINAL RANGE AND PERFORMANCE TABLE – CODE S ACTUATOR SEAL					
Nominal Range		Proof Pressure	Setpoint Repeatability	Setpoint Adjustability	Deadband (All Switch Elements)
			APS (Factory Set)	Range	
psi	bar	psi	psi	psi	
30IMV/15	~1/1	2000	±1.0°Hg/±0.5	~30°Hg to 15	1-6°Hg/1-5.0
30	2	2000	±0.5	5-30	1.0-5.0
60	4	2000	±1.0	8-60	2.0-7.0
100	7	2000	±2.0	10-100	3.0-10
200	14	2000	±5.0	35-200	12-20
400	28	2000	±10	45-400	20-40
600	40	3000	±15	60-600	30-60

7B – NOMINAL RANGE AND PERFORMANCE TABLE – CODE H ACTUATOR SEAL					
Nominal Range		Proof Pressure psi	Setpoint Repeatability APS (Factory Set) psi	Setpoint Adjustability Range psi	Deadband (All Switch Elements)
psi	bar	8000	±20	100-1000	50-100
1000	70	8000	±25	200-2000	100-200
2000*	140	8000	±25	200-2000	100-200
5000*	345	12,000	±50	500-5000	300-500

*APS only

A-Series Miniature Pressure Switch



A-SERIES **BRASS BODY** PRESSURE SWITCH MODEL NUMBER:

To specify the exact switch desired select entries from appropriate tables as shown in example below.

1			2		3		4	5		6			7	
A	P	A	R	B	D	L	B	0	2	X	F	S	60 PSI	

1 – FUNCTION
APS – Pressure switch, single setpoint, fixed deadband, factory set
APA – Pressure switch, single setpoint, fixed deadband, field adjustable

2 – ENCLOSURE
RB – Brass/polycarbonate body with polycarbonate switch seal

3 – SWITCH ELEMENTS CODE		
S.P.D.T. Switch Elements UL/CSA Listed		
CODE		
D	General Purpose	5A, 125/250 Vac 5A, 28 Vdc
M	Gold Contacts	1A, 125 Vac

3B – ELECTRICAL CONNECTION CODE	
CODE	Electrical Terminations
L	Wire leads, 3-#18 AWG Insul.– 12"
S	Screw terminals, 3-#6 binding head screw
T	Spade terminal, 3-187 male spade
C	½ NPT male conduit connection with wire leads
H	Micro DIN connector

4 – ACTUATOR SEAL		
Code	Material	Process Temperature Limits* °F)
B	Buna N	0-150
V	Viton	20-200
T	Teflon	0-150
H	Stainless Steel Piston/ Viton O-ring	20-200

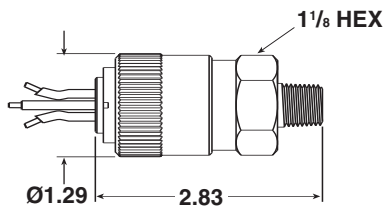
5 – PRESSURE CONNECTION CODE	
Code	Description
01	½ NPT Male
02	¼ NPT Male

6 – A-SERIES OPTIONS	
Code	Description
XFS	Factory Adjusted Setpoints
XNH	Tagging Stainless Steel
X6B	Cleaned for Oxygen Service

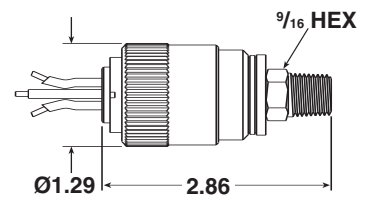
7A – AP NOMINAL RANGE & PERFORMANCE TABLE – CODES B, V, T ACTUATOR SEAL						
Nominal Range		Proof Pressure	Setpoint Repeatability APS (Factory Set)	Setpoint Adjustability Range	Deadband (All Switch Elements)	
psi	bar	psi	psi	psi	Buna N	Viton & Teflon
30IMV	~1	1000	±1.0"Hg	~30 to ~4"Hg	1-5"Hg	1.0-7.0
15	1	1000	±0.5	1.5-15	0.1-1.0	0.2-2.0
30	2	1000	±0.5	3-30	0.2-1.3	0.3-2.5
60	4	1000	±1.0	6-60	0.3-1.5	0.5-3.0
100	7	1000	±2.0	10-100	1.0-5.0	4.0-10
200	14	1000	±5.0	20-200	4.0-12	5.0-18
400	28	1600	±10	40-400	5.0-20	5.0-25
600	40	2400	±15	60-600	8.0-25	10.0-34

7B – AP NOMINAL RANGE & PERFORMANCE TABLE – CODE H ACTUATOR SEAL					
Nominal Range		Proof Pressure	Setpoint	Setpoint	Deadband
			Repeatability APS (Factory Set)	Adjustability Range	
psi	bar	psi	psi	psi	Code D, M, DD, MM
1000	70	4000	±20	100-1000	50-100

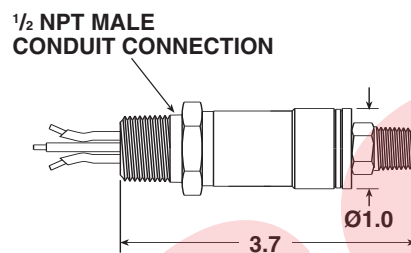
A-Series Miniature Pressure Switch



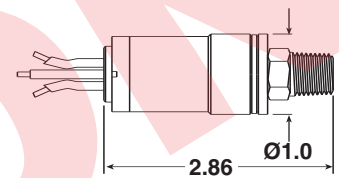
APA RB DL S02



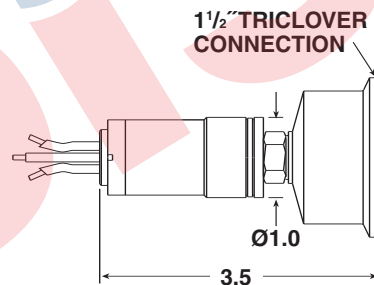
APA NS DL S02



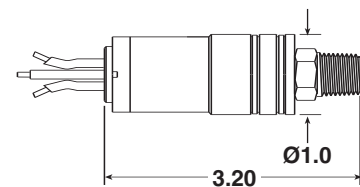
APS N7 DC S02



APS NS DL S02



APS NS DL S02 X3A



APS NS DL S02 (Vac./15 psi Range)