

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

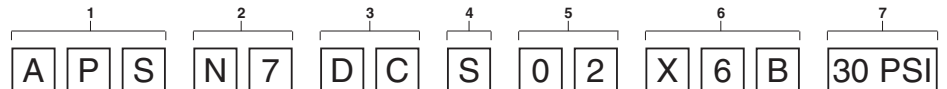
We recommend optional sealed switch element for improved reliability. The sealed switch provides uncompromising contact protection in harsh or corrosive environments, such as that found in off shore platforms, off-road equipment, outdoor plants and mills, and equipment that is washed down or is subject 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 – 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 screws
T	Spade terminal, 3-187 male spade
C	1/2 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	1/8 NPT Male
02	1/4 NPT Male
03	1/8 NPT Female
04	1/4 NPT Female
05	7/16-20 SAE
06	VCR
07	VCO
09	3/4 TriClamp Connection

6 – F-SERIES OPTIONS	
CODE	DESCRIPTION
XFS	Factory Adjusted Setpoints
XNH	Tagging Stainless Steel
X6B	Clean for Oxygen Service
X3A	1 1/2" 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 psi	Setpoint Repeatability APS (Factory Set) psi	Setpoint Adjustability Range psi	Deadband (All Switch Elements)
psi	bar				
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				
1000	70	8000	±20	100-1000	50-100
2000*	140	8000	±25	200-2000	100-200
5000*	345	12,000	±50	500-5000	300-500

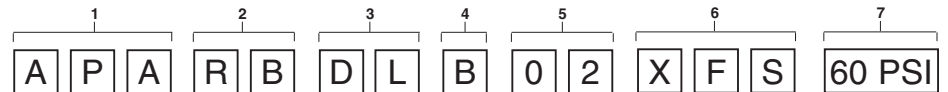
*APS only

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

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

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

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

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

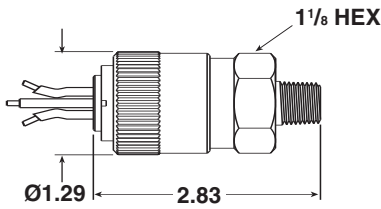
3B – ELECTRICAL CONNECTION CODE	
CODE	Electrical Terminations
L	Wire leads, 3-#18 AWG Insul.- 12"
S	Screw terminals, 3-#6 binding head screws
T	Spade terminal, 3- 187 male spade
C	½ NPT male conduit connection with wire leads
H	Micro DIN connector

7A – AP NOMINAL RANGE & PERFORMANCE TABLE – CODES B, V, T ACTUATOR SEAL						
Nominal Range		Proof Pressure	Setpoint	Setpoint	Deadband	
			Repeatability	Adjustability	(All Switch Elements)	
psi	bar	psi	psi	psi	Buna N	Viton & Teflon
30MV	-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	8.0-25
600	40	2400	±15	60-600	8.0-25	10.0-34

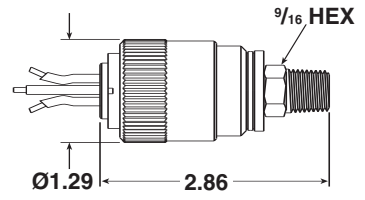
4 – ACTUATOR SEAL		
Code	Material	Process Temperature Limits* °F)
B	Buna N	0-150
V	Viton	20-200
T	Teflon	0-150
H	Stainless Steel Piston/ Viton O-ring	20-200

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

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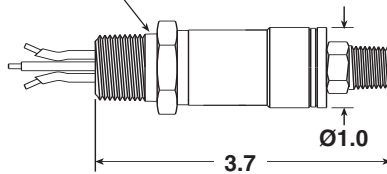


APA RB DL S02

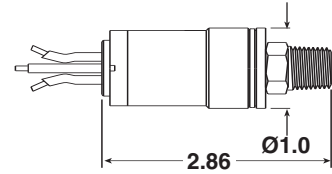


APA NS DL S02

1/2 NPT MALE
CONDUIT CONNECTION

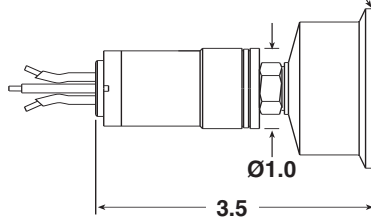


APS N7 DC S02

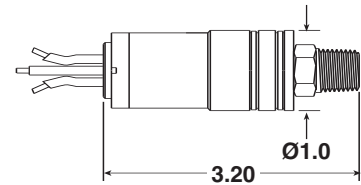


APS NS DL S02

1 1/2" TRICLOVER
CONNECTION



APS NS DL S02 X3A



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