

## 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

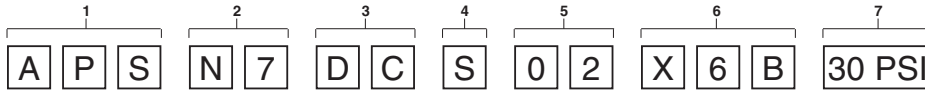
We recommend optional sealed switch element for improved reliability. The sealed switch provides uncompromising contact protection in harsh or corrosive environments, such as that found in offshore platforms, off-road equipment, outdoor plants and mills, and equipment that is washed down or is subject 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 Ashcroft'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	
<b>APS</b>	Pressure switch, single setpoint, fixed deadband, factory set
<b>APA</b>	Pressure switch, single setpoint, fixed deadband, field adjustable

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

3A – SWITCH ELEMENT CODE		
CODE	S.P.D.T. Switch Elements UL/CSA Listed	
	<b>D</b>	General Purpose
<b>M</b>	Gold Contacts	1A, 125 Vac

3B – ELECTRICAL CONNECTION CODE	
CODE	Electrical Terminations
<b>L</b>	Wire leads, 3-#18 AWG Insul.- 12"
<b>S</b>	Screw terminals, 3-#6 binding head screws
<b>T</b>	Spade terminal, 3-.187 male spade
<b>C</b>	1/2 NPT male conduit connection with wire leads <sup>(2)</sup>
<b>H</b>	Micro DIN connector

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

5 – PRESSURE PORT	
Code	Description
<b>01</b>	1/8 NPT Male
<b>02</b>	1/4 NPT Male
<b>03</b>	1/8 NPT Female
<b>04</b>	1/4 NPT Female
<b>05</b>	7/16-20 SAE
<b>06</b>	VCR
<b>07</b>	VCO
<b>09</b>	3/4 TriClamp Connection

6 – A-SERIES OPTIONS	
Code	Description
<b>XFS</b>	Factory Adjusted Setpoints
<b>XNH</b>	Tagging Stainless Steel
<b>X6B</b>	Clean for Oxygen Service
<b>X3A</b>	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

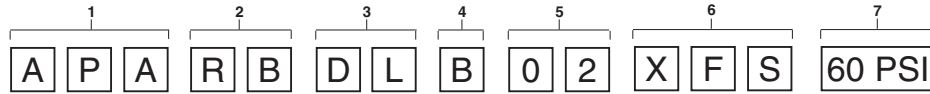
7B – NOMINAL RANGE AND PERFORMANCE TABLE – CODE H ACTUATOR SEAL					
Nominal Range		Proof Pressure psi	Setpoint Repeatability APS (Factory Set) psi	Setpoint Adjustability Range psi	Deadband (All Switch Elements)
psi	bar				
1000	70	8000	±20	100-1000	50-100
2000*	140	8000	±25	200-2000	100-200

\*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	
<b>APS</b>	Pressure switch, single setpoint, fixed deadband, factory set
<b>APA</b>	Pressure switch, single setpoint, fixed deadband, field adjustable

2 – ENCLOSURE	
<b>RB</b>	Brass/polycarbonate body with polycarbonate switch seal

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

3B – ELECTRICAL CONNECTION CODE	
CODE	Electrical Terminations
<b>L</b>	Wire leads, 3-#18 AWG Insul.- 12"
<b>S</b>	Screw terminals, 3-#6 binding head screws
<b>T</b>	Spade terminal, 3-.187 male spade
<b>C</b>	1/2 NPT male conduit connection with wire leads
<b>H</b>	Micro DIN connector

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

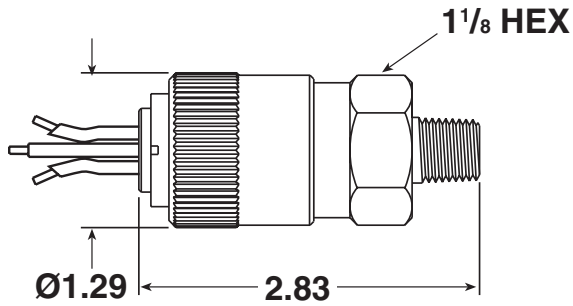
5 – PRESSURE CONNECTION CODE	
Code	Description
<b>01</b>	1/8 NPT Male
<b>02</b>	1/4 NPT Male

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

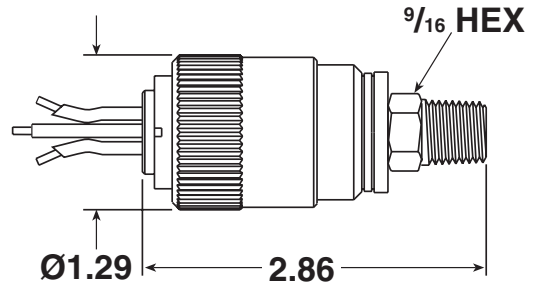
7A – AP NOMINAL RANGE & PERFORMANCE TABLE – CODES B, V, T ACTUATOR SEAL							
Nominal Range		Proof Pressure psi	Setpoint Repeatability APS (Factory Set) psi	Setpoint Adjustability Range psi	Deadband (All Switch Elements)		
psi	bar				Buna N	Viton & Teflon	
30IMV	-1	1000	±1.0"Hg	-30 to -4"Hg	1-5"Hg	1.0-7.0	
15	1	1000	±0.5	1.5-15 0	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	

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

## A-Series Miniature Pressure Switch

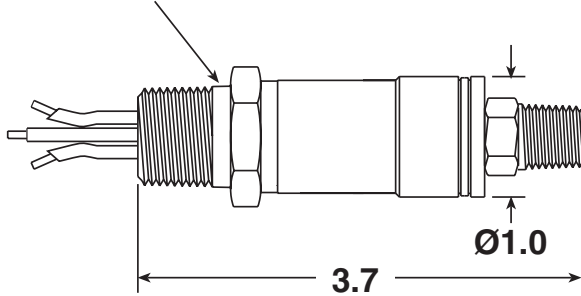


**APA RB DL S02**

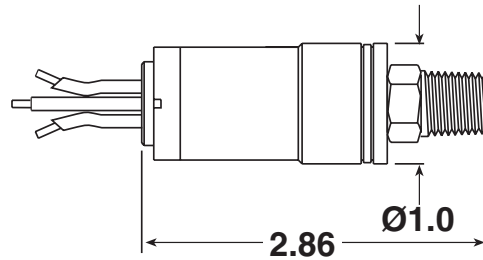


**APA NS DL S02**

**1/2 NPT MALE  
CONDUIT CONNECTION**

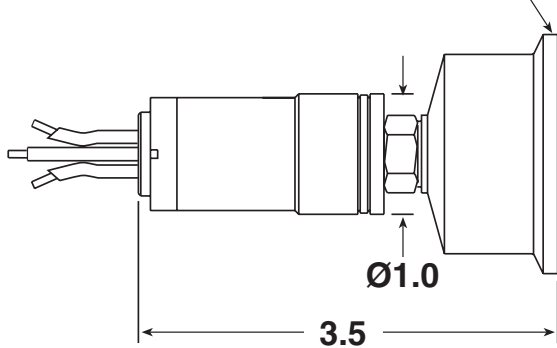


**APS N7 DC S02**

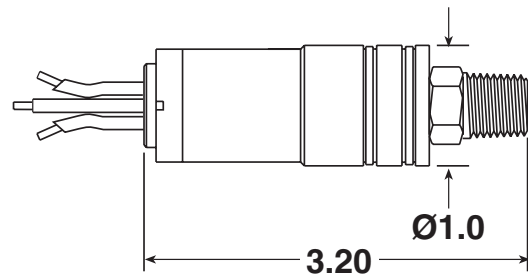


**APS NS DL S02**

**1 1/2" TRICLOVER  
CONNECTION**



**APS NS DL S02 X3A**



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