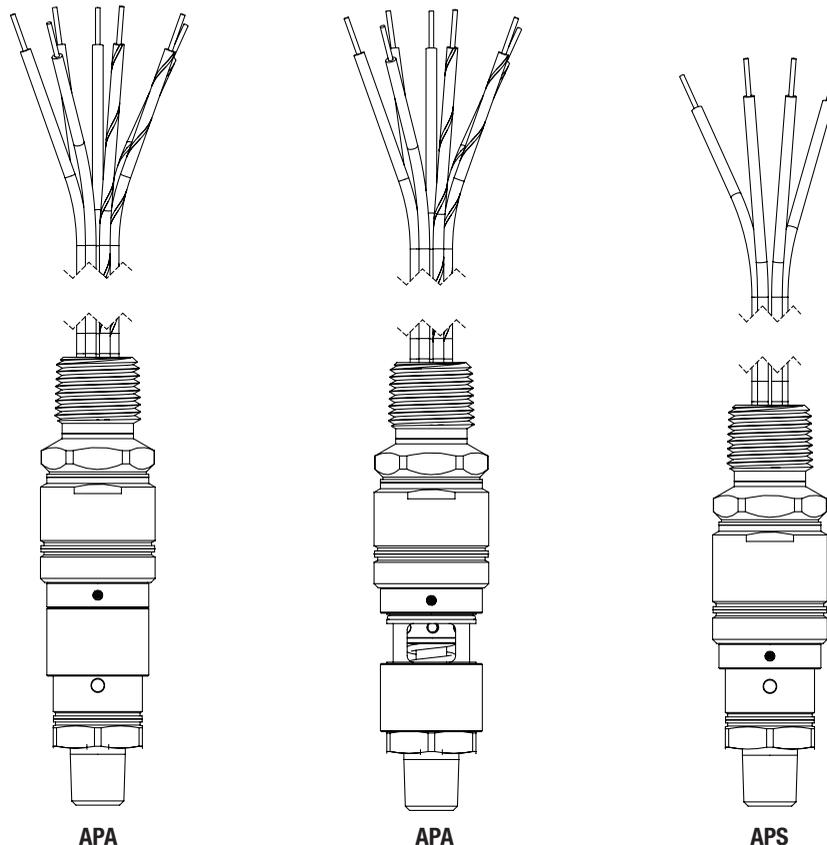


**Installation and Maintenance Instructions
for Ashcroft A-Series Miniature
Explosion Proof Pressure Switches**



**SLIDE COVER DOWN TO ACCESS
SETPOINT ADJUSTMENT SLIDE COVER
UP TO CLOSE AND SEAL ADJUSTMENT**

**ROTATE LEFT ←
TO INCREASE SETPOINT
ROTATE RIGHT →
TO DECREASE SETPOINT
Ø .095 OR SMALLER TOOL
REQUIRED TO ROTATE NUT**



INTRODUCTION

The APS and APA pressure switch have 316 stainless steel housing and process connections. The APS has a factory fixed setpoint which cannot be changed in the field. The APA is field adjustable and can easily be adjusted by following the instructions in the diaphragm above.

ELECTRICAL CONNECTION

The APS and APA switch is available with wire leads and conduit connections. Refer to the figure on other side for wiring color codes.

- Only trained and skilled personnel are allowed to attach the wires to the electrical terminals of the switch.
- Cable couplers, glands and conduit connectors must have the correct electrical approvals as required by local electrical codes.
- The ground wire/connector is connected to the switch housing.

MICRO SWITCH RATINGS

CODE	VAC RATING	VDC RATING
H	5A @ 125/250VAC	5A @ 28Vdc resistive
		3A @ 28Vdc inductive
P	3A @ 125VAC	2A @ 30Vdc resistive
G	0.1 A @ 125VAC	0.1A @ 30Vdc resistive
L	1A @125VAC	1A @ 28Vdc resistive
		0.5A @ 28Vdc inductive

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INSTALLATION

- To minimize the risk of injury, the switch enclosure must be selected according to the area classification and installed according to the required safety and electrical codes.
- Torque should always be applied to the hex portion of the body closest to pressure fitting, never to any other part of the body for it may alter the setpoint. It is recommended that Teflon tape or other sealant be used on the threads prior to installing to prevent leaks in the system.
- Switch should be protected from excessive shock and vibration.
- The cover of the APA switch should be closed at all times when the switch is in operation.

CAUTIONS

- Always close the cover of the APA switch after making any setpoint adjustments.
- Do not exceed current or voltage limits.
- The protection degree of the switch is only valid when the switch is installed in accordance with all safety and electrical codes and regulations.

CLEANING

- Never use aggressive solvents.
- Do not use high pressure water to clean the switch.

MAINTENANCE/TROUBLESHOOTING

- All Ashcroft switches require little or no maintenance.
- Be sure the cover on the APA switch is closed at all times.
- When the switch is exposed to process media that may harden and/or build up in the pressure port, the switch should be removed and cleaned as required.
- If the switch does not function, only trained and skilled personnel should check on the wiring, power supply and/or mounting.
- If the problem cannot be solved, please contact one of the Ashcroft affiliates or distributors.

FACTORY SETPOINTS

The APS switches and APA switches with a setpoint called out in the product code are set at the factory as follows:

- Increasing Setpoint (R) Rising Pressure or Decreasing Vacuum – Normally Open contact will close when the pressure is raised from 0 psig to the setpoint. The resetpoint is then measured from the setpoint, reducing the pressure until the Normally Open contact opens.
- Decreasing Setpoint (D) Decreasing Pressure or Increasing Vacuum – Normally closed contact will close when the pressure is lowered from full range pressure to the setpoint. The reset is then measured from the setpoint, increasing the pressure until the Normally Closed contact opens.

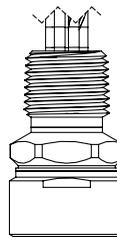
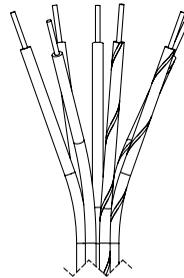
Note: When ordered as a -15/15 psi range switch, depending on setpoint, the Normally Open contact may be closed as received.

EXPECTED MECHANICAL LIFE

Leak free to 1 million pressure cycles on “B” or “V” seals, 400k pressure cycles with “S” seals, and 1 million cycles of the micro-switch enclosure diaphragm.

SPECIAL CONDITIONS FOR SAFE USE

This equipment utilizes a flexible Ex d wall. Do not exceed manufacturers maximum limit detailed in the instructions.



WIRE COLOR/FUNCTION		
WIRE COLOR	SWITCH	FUNCTION
RED	SW1	NC
WHITE	SW1	C
BLUE	SW1	NO
WHITE/BLACK	SW2	C
RED/BLACK	SW2	NC
BLUE/BLACK	SW2	NO
GREEN	-	Ground

Safety Manual and SIL Certificate, CRN available on www.ashcroft.com

APPROVALS:



FACTORY SEALED



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



Sira 13ATEX1123X
CSAE 21UKEX1055X

IECEx
CSA 13.0015X

II 2GD
Ex d IIC T6/T5 Gb
Ex tb IIIC T85°C/100°C Db
Ta or Tp = -20/-40°C* to +74/89°C**

*Low ambient temperature is dependent upon Switch Code, Pressure Range, Material Code and Temperature Code per table in description. Only one low temperature is shown as they are the same for both T6 and T5 Codes.

**High ambient temperature is dependent upon Switch Code, and Temperature Code per table in description. Both high temperature limits are listed as they may be different for the T6 and T5 Codes. They are separated by a “/” as shown.