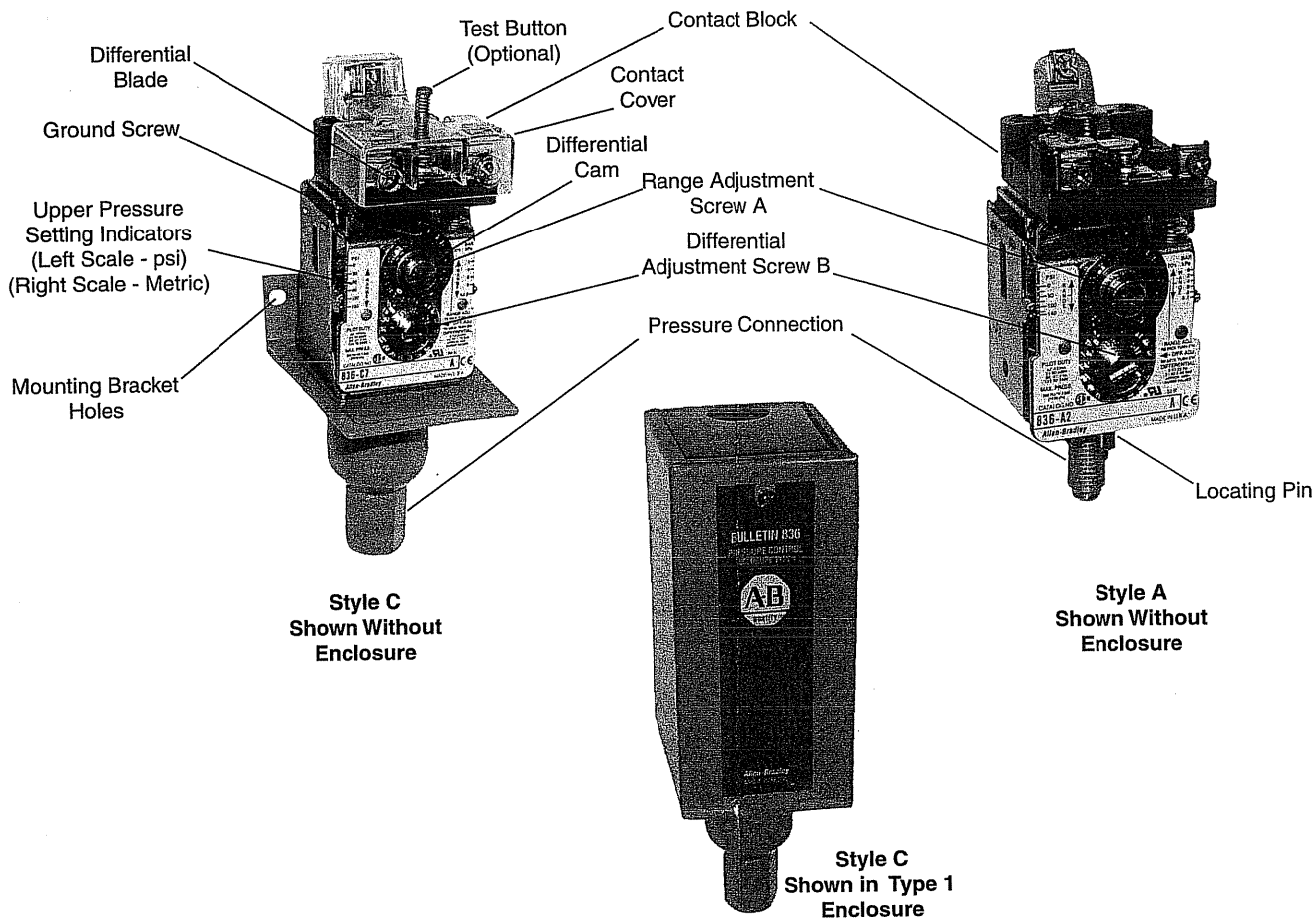




Pressure Controls



DESCRIPTION - Bulletin 836 Pressure Controls are designed for use with air, water, oil and other noncorrosive liquids, vapors, and gasses. (Type 316 stainless steel bellows are available for more corrosive liquids or gasses in pressure ranges to 375 psi.)

Bulletin 836 Controls are available in Type 1, 4 & 13, 4X, 7 & 9, 4 & 13 combination enclosures in addition to open type. The operating range pressure and differential are adjustable. Fixed differential versions are also available. Pressure ranges available from 30 in. Hg vacuum to 900 psi.

The standard contact block is single pole, double throw and can be wired to open or close on increasing or decreasing pressure.

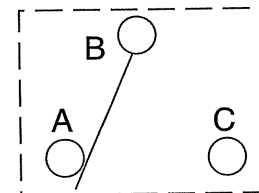
OPERATION - A low friction, straight in-line mechanism operates a snap action switch at a predetermined pressure setting. An increase in pressure causes the normally closed circuit A-B to open and normally open circuit B-C to close. This is known as the "Trip" pressure. When the pressure returns to a lower predetermined setting, the circuit A-B will close and circuit B-C will open. This is known as the "Reset" pressure. The difference between the "Trip" and "Reset" pressure is the differential.

For controls which operate in a vacuum, the following sequence occurs: 1) an increase in vacuum (lower pressure toward 30 in Hg) causes circuit A-B to close and B-C to open. This is the "Trip" setting. 2) when the pressure returns to a predetermined lower vacuum (higher pressure toward 0 psi.), circuit A-B will open and B-C will close. This is the "Reset" point. The difference between the "Trip" and "Reset" setting is the differential.

CONTACT RATINGS

Non-Inductive Ratings	Control Circuit Ratings
5 Amperes, 250 Volts	AC-125 VA 24 to 600 Volts
3 Amperes, 600 Volts	DC-57.5 VA 115 to 230 Volts

Manual reset, horsepower rated and other contact block modifications are so available on devices manufactured at the factory.



**Standard Contact Arrangement
For Positive Pressure**

ADJUSTMENT - Generally, unless otherwise specified, controls shipped from the factory are set at the maximum operating range pressure and minimum differential.

The following procedure should be used to set the control to a particular requirement:

OPERATING RANGE ADJUSTMENT: Turn range adjustment Screw "A" counterclockwise to lower the upper and lower pressure settings. To increase the upper and lower settings, turn Screw "A" clockwise. The approximate upper pressure setting is shown by indicators on the outer edges of the nameplate.

DIFFERENTIAL ADJUSTMENT: When the differential blade is at the low point of the differential cam the control will function at minimum differential. To increase the differential, turn adjustment Screw "B" counterclockwise. This will decrease the lower pressure setting only. To decrease the differential, turn differential adjustment Screw "B" clockwise. This will raise the lower setting only.

Condensed instructions are supplied with open style controls and are on the inside of the cover of enclosed devices.

NOTE: The use of a pressure gauge is desirable when setting the control.

CAUTION: The range adjustment Screw "A" should not be adjusted beyond the pressure indicated on the pressure scale as this may cause the control to malfunction.

It is recommended that a periodic inspection of gauge pressure be made and the pressure control adjusted to compensate for application variables.

BELLOWS LIFE: The pressure applied to a bellows in a normal cycle of operation should not exceed the maximum rated Range Pressure. The bellows will withstand the rated Maximum Line Pressure but should not be cycled at this pressure. The control is designed to operate within published rated Range Pressure. For general applications a control used within 30% to 80% of Range Pressure will provide optimum bellows life and repeatability.

IMPORTANT: Bulletin 836 Style A pressure controls are normally supplied with a built in pulsation snubber. Bulletin 836 Style C devices are supplied with a removable snubber. The snubber can be removed for inspection, cleaning, or when using the control with high viscosity fluids. The snubber can be removed with a 1/4 inch nut wrench, or equivalent.

The pulsation snubber is designed to help reduce pressure transients. Transients can vary in amplitude, frequency, and duration and if not controlled with a snubber can reduce bellows life.

Pressure systems and lines must be maintained and kept free of foreign particles in air lines and sludge in fluid lines. A restricted or clogged pulsation snubber can cause the pressure control to become inoperative.

MOUNTING: The pressure control should be mounted securely to a firm base using two mounting screws. The mounting holes are provided either in the base of the enclosure or in a convenient mounting bracket which is provided as part of the open Style C control. Mounting brackets are available for the open type Style A control.

CAUTION: The control should not be supported by the electrical and pressure connections only. A support wrench should be used when tightening the electrical hub and pressure connections. The enclosed device or open type control using a mounting bracket is not intended to support connecting equipment. This equipment must be secured to support weight and to reduce vibration.

CAUTION: If a liquid thread sealant is used on the pressure connection, care must be taken to avoid excess sealant from getting into bellows orifice.

PILOT LIGHT OPTION - A high intensity neon glow pilot light is available for 120 volt, 60 hertz applications. A 24 volt DC LED pilot light is also available. The pilot light is factory wired across the N.C. contacts, circuit A-B and can easily be converted to the N.O. contacts, circuit B-C, on the standard contact block .

Unless a third wire is made available, the pilot light is connected across the load contacts which can be either the N.O. or N.C. contacts. The pilot light is on until the load is energized.

Current rating:

120 VAC high intensity neon glow 4 mA

24 VDC high intensity LED 22 mA

ATTENTION - To prevent electrical shock, disconnect from power source before installing or servicing.

CAUTION - For 24 VDC LED pilot lights, polarity must be observed. Red (+) lead of pilot light should always be connected to rear terminal (B)

To order pilot light version add X9 (120VAC), X15 (24VDC) or X18 (24VDC) to catalog number of the selected control.

REPAIRS - Due to the integral construction of the Bulletin 836 Pressure Control, only limited repairs can be made in the field. If returned to the factory for repairs, the condition of the control will be evaluated to determine economic feasibility. When practical, the control will be repaired, factory adjustments made for optimum performance and tested to specifications.

CONTACT BLOCK REPLACEMENT - To order the Bulletin 836 Contact Block replacement Kit, specify Catalog Number 836-N2.