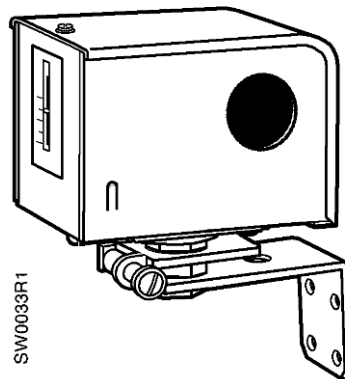


Powers™ Controls

SW 134 Pressure Electric Switch (Fixed Differential)



Description

The SW 134 Pressure Electric Switch actuates electrical circuits from pneumatic control signals.

Features

- Single-Pole, Double-Throw (SPDT), snap-acting switch
- External adjustment and indication of setpoint
- Screw terminals are easily accessible for field wiring
- Long life, heavy duty contact mechanism
- Not position-sensitive
- Universal mounting bracket included

Product Number

134-1460

Warning/Caution Notations

WARNING:		Personal injury/loss of life may occur if you do perform a procedure as specified.
CAUTION:		Equipment damage, or loss of data may occur if you do not perform a procedure as specified.

Application

The SW 134 Pressure Electric Switch can be used for the control of electric heating loads or motors on fans, pumps or small air compressors. The switch can be wired as either a Single-Pole, Double-Throw (SPDT) or Single-Pole, Single-Throw (SPST) switch. The switch has a higher amperage rating as SPST. See Table 1. For SPST, use the normally open or the normally closed terminal, but not both.

**Application,
 Continued**

WARNING:



The pressure electric switch is designed for use only as an operating control. Where an operating control failure would result in personal injury and/or loss of property, it is the installer's responsibility to add devices (safety, limit controls) or systems (alarm, supervisory systems) that protect against, or warn of control failure.

Table 1. Electrical Ratings.

Motor Ratings	120V	208V	240V	277V
A.C. Full Load Amps	16	9.2	8	—
A.C. Locked Rotor Amps	96	55.2	48	—
A.C. Non-Inductive Amps (SPST)	22	22	22	22
A.C. Non-Inductive Amps (SPDT)	16	16	16	16
Pilot Duty- 125 VA 24 to 277 Vac				

Specifications

Medium	Compressed air
Setpoint range	3 to 20 psig (20 to 138 kPa)
Differential	2.0 psig (14 kPa)
Factory setting (red to yellow)	Open- 6 psi (41 kPa) Closed- 8 psi (55 kPa)
Switch	One SPDT, terminal color coded as follows:
Red	Common
Blue	Normally closed
Yellow	Normally open
Maximum pressure	160 psi (1034 kPa)
Conduit opening	3/4-inch conduit size
Ambient temperature	32 to 140°F (0° to 60°C)
Pressure connection	1/8-inch female NPT
Weight	1.2 lb (0.54 kg)
Dimensions	See Figure 3

Operation

A change in operating pressure positions a non-metallic diaphragm to actuate an electrical switch.

The switch has color-coded terminals. The common terminal is red. The red to yellow terminals close an electrical circuit on a rise in pressure. The red to blue terminals close the circuit on drop of pressure. See Figure 1.

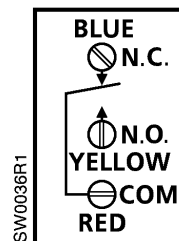


Figure 1. Terminal Identification.

Mounting and Installation

The switch is not position-sensitive and can be mounted in any position.

1. Mount the switch with the mounting bracket furnished.
2. Connect the switch to the air supply line using a 1/8-inch male NPT fitting.

Wiring**WARNING:**

Disconnect power supply before wiring connections are made to avoid possible electrical shock or damage to the equipment.

- Make all wiring connections using only copper conductors and in accordance with the National Electrical Code and local regulations. Loads exceeding the rating of the switches should be controlled by means of an intermediate relay or starter.
- Loosen the screw on the top of the switch cover for access to the terminals. See Figure 2.

**CAUTION:**

Use terminal screws furnished in the switches (#8-32 × 1/4 inch). Longer terminal screws can interfere with the switch mechanism and damage the switch.

Adjustment

- See Figure 2.
- The setpoint adjustment screw is accessible from the bottom of the unit with the cover in place and from the top with the cover removed.
- Use a small flat blade screwdriver to turn the adjusting screw.
- The scale indicates the pressure at which the red to yellow contact closes.

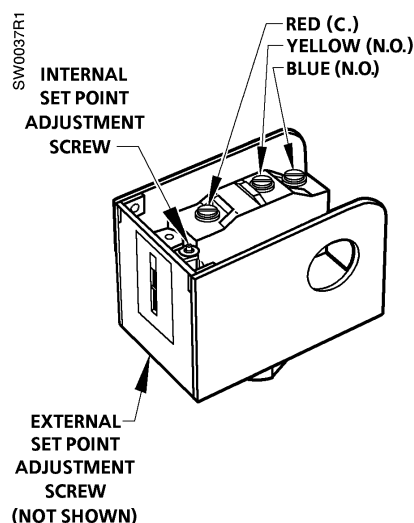


Figure 2. Interior of the Pressure Electric Switch.

Troubleshooting

Observe a complete operating cycle to be sure that all components function correctly.

Service

There is no servicing of the switch. Replace if inoperative.

Dimensions

Dimensions in Inches (Millimeters)

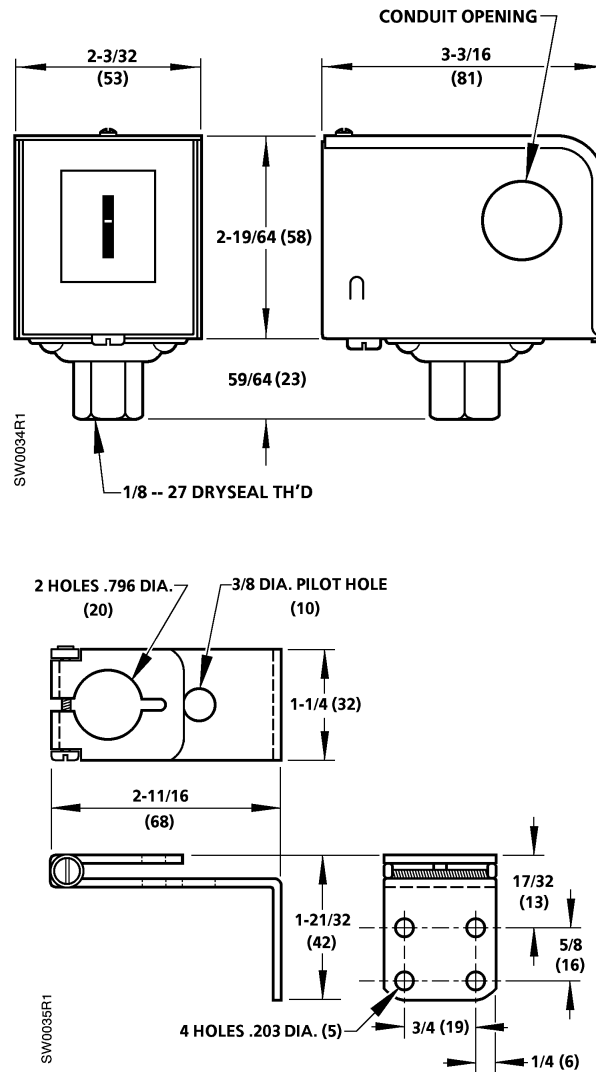


Figure 3. Dimensions of the 134-1460 Pressure Electric Switch and Mounting Bracket.

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