

# PNEUMATICS & FITTINGS



## SIEMENS/POWERS LOWEST PRESSURE SIGNAL SELECTOR/VOLUME AMPLIFYING RELAY 243-0020 SERIES

**SIEMENS**  
**POWERS™**

### DESCRIPTION

The **Siemens/Powers 243-0020 Series Lowest Pressure Signal Selector/Volume Amplifying Relay** is designed to select and transmit the lower of two proportional input signals.

It can also be used as a volume amplifying relay as described under Applications.

### FEATURES

- *Lightweight and small in size*
- *Can be mounted in any position*
- *Can be supported by the 1/4" poly tubing connected to the input and output fittings*
- *Can be used as a volume amplifier*

**NEW!**



243-0020 Series

### MOUNTING AND INSTALLATION INSTRUCTIONS

**NOTE:** Use clean, dry, oil-free instrument quality air only. Do not use any other medium.

This signal selector will operate properly when mounted in any position.

Since relay tubing nipples do not have barbs, take the following precautions:

- *Make sure nipple are not contaminated with oil or grease*
- *When tubing is removed from relay, cut off 1/2" before replacing*
- *For more holding power, use Part Number 151-080 tubing clip*

### SPECIFICATIONS

**Maximum Air Pressure** 30 psig (210 kPa)

**Ambient Temperature Range** 140°F (60°C)

**Air Connections** 3/16 dia. nipple for 1/4" OD polyethylene tubing

**Mounting** In-line

**Air Capacity @  $\Delta P = 2$  psi** 80 scim (22 ml/sec)

**Air Capacity @  $\Delta P = 2$  psi when used as an amplifying relay with independent air supply**

200 scim (55 ml/sec)

**Air Consumption** 29 scim (8 ml/sec)

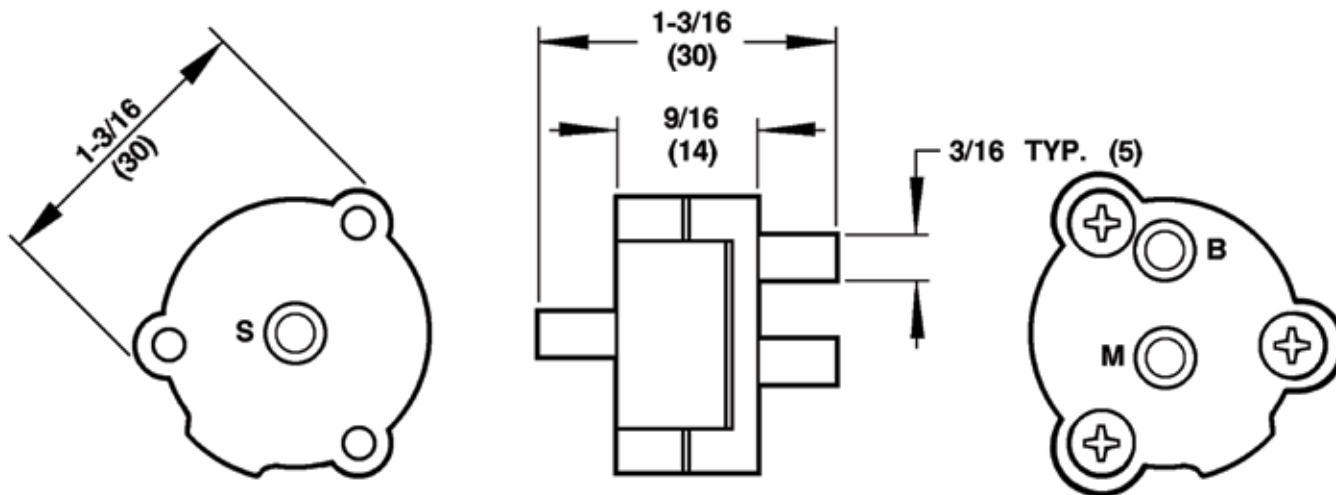
**Housing** Glass-reinforced nylon

**Diaphragm** Nylon-reinforced fairprene

**Weight** 0.05 lb (0.02 Kg)

**Warranty** 1 year

### DIMENSIONS



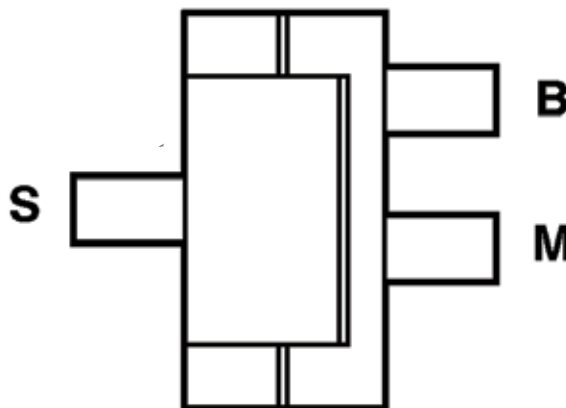


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### OPERATION

Ports "S" and "M" are input ports and port "B" is the output port. See below. When pressure on "S" port is lower than the pressure on the "M" port, the output pressure is equal to the pressure in the "S" port. When the pressure on the "M" port is lower than the pressure on the "S" port, the output pressure is equal to the pressure in the "M" port.



### APPLICATION

#### APPLICATION

The lowest pressure signal selector is used in applications requiring a pneumatic output signal which is the lower of the two input signals. See diagram.

The signal selector is only recommended for use with two pipe (relay type) thermostats. This is a low capacity pilot duty device. For some applications, an amplifying relay will be required for the output signal.

The lowest pressure signal selector can be used as a volume amplifier by connecting supply air to one of the input ports as shown.

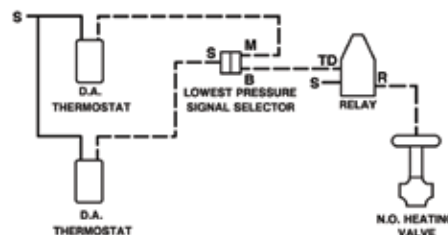


Figure 1 - Lowest Pressure Signal Selector Application

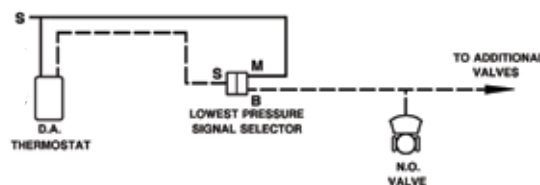


Figure 2 - Volume Amplifier Application

### ORDERING INFORMATION

**MODEL**  
**243-0020**

**DESCRIPTION**  
Pneumatic lowest pressure signal selector relay