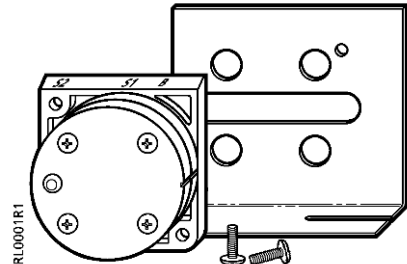


# Powers™ Controls

## RL 243H Highest Pressure Signal Selector



**Description** The RL 243H Highest Pressure Signal Selector is designed to select and transmit the higher of two pneumatic input signals.

- Features**
- Lightweight and small
  - Can be mounted in any position
  - Can be supported by the polyethylene tubing connected to the input and output fittings
  - Bracket provided for fixed mounting

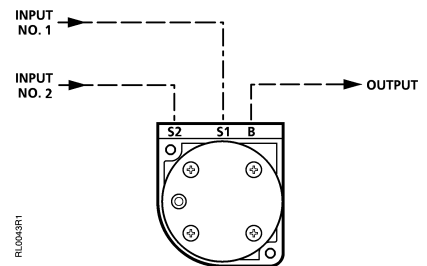
**Product Number** 243-0018 (Mounting Bracket included)

**Application** The Highest Pressure Signal Selector is used in applications requiring a pneumatic output signal which is the higher of two input signals. See Figure 1 and Table 1. This is a low capacity device. For some applications a volume amplifying relay will be required.

**NOTE:** The input ports "S1" and "S2" can only be connected to high capacity output devices, such as two-pipe relay type controllers. The output port "B" can only be connected to non-bleed closed end chamber devices, such as actuators.



**Table 1. Typical Input-Output Signals.**

Input "S1" (psig)	Input "S2" (psig)	Output "B" (psig)
12	8	12
3	15	15
9	9	9



**Figure 1. Piping Diagram.**

## Warning/Caution Notations

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

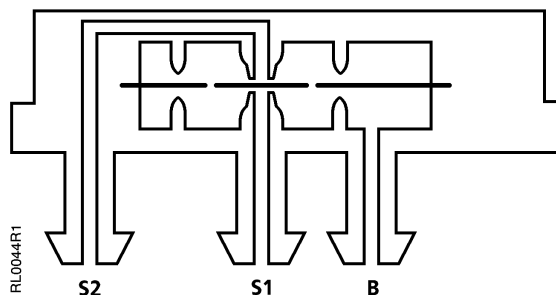
## Specifications

Maximum air pressure	30 psig (207 kPa)
Ambient temperature - maximum	140°F (60°C)
Air connections	Barbed connector for 1/4-inch (6.4 mm) OD polyethylene tubing
Type of mounting	In-line or bracket
Air capacity at 2 psi (14 kPa) differential	65 scim (18 ml/s)
Air consumption	None
Housing	Glass-filled nylon
Diaphragm	Neoprene with fabric
Dimensions	See Figure 3
Weight	4 oz (0.1 kg)

## Operation

"S1" and "S2" are input ports and "B" is an output port. See Figure 2.

When the pressure in port "S1" is higher than the pressure in port "S2", the diaphragm is forced up, closing the "S2" port. Air from port "S1" passes directly to the "B" port. When the pressure at port "S2" is higher than the pressure at port "S1" the diaphragm moves down, closing the "S1" port. Air from "S2" passes through the small slits in the diaphragm and out "B" port.



**Figure 2. Construction of the Selector Switch.**



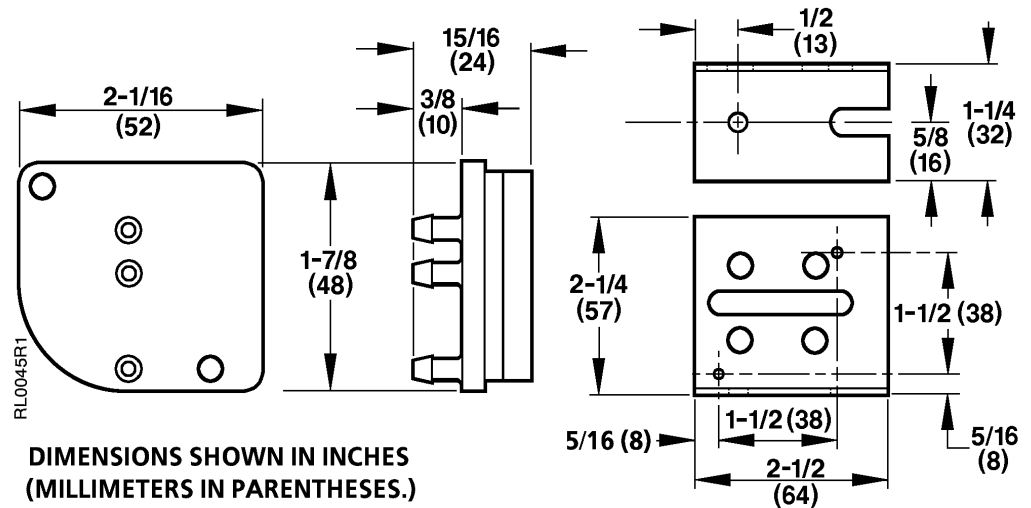
### CAUTION:

Use with clean, dry control air only. Do not use any other medium.

**Mounting and Installation**

- This signal selector will operate properly when mounted in any position.
- The selector can be mounted using either the tubing connecting the input and output fittings or the mounting bracket provided. See Figure 1 for piping instructions.
- See Figure 3 for the dimensions of the signal selector and mounting bracket.

**Dimensions**



**Figure 3. Dimensions of the Selector and the Mounting Bracket.**

**Service**

There is no servicing of the signal selector. Replace if inoperative.

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