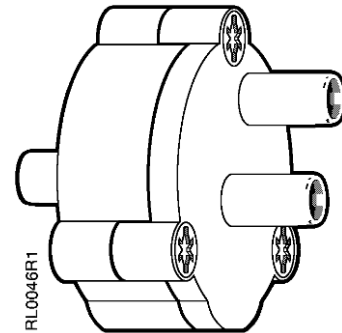


## Powers™ Controls

### RL 243 Lowest Pressure Signal Selector/Volume Amplifying Relay

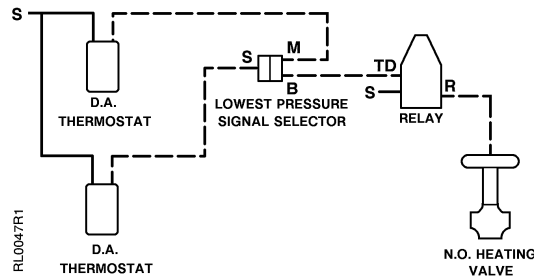


---

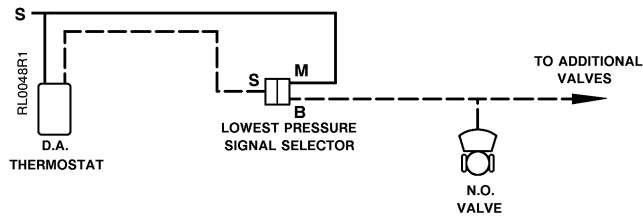
<b>Description</b>	<p>The RL 243 Lowest Pressure Signal Selector is designed to select and transmit the lower of two proportional input signals.</p> <p>It can also be used as a volume amplifying relay as described under <i>Applications</i>.</p>
<b>Features</b>	<ul style="list-style-type: none"><li>Lightweight and small in size</li><li>Can be mounted in any position</li><li>Can be supported by the 1/4-inch poly tubing connected to the input and output fittings</li><li>Can be used as a volume amplifier</li></ul>
<b>Product Number</b>	243-0020
<b>Application</b>	<p>The lowest pressure signal selector is used in applications requiring a pneumatic output signal which is the lower of the two input signals. See Figure 1.</p> <p>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.</p> <p>The lowest pressure signal selector can be used as a volume amplifier by connecting supply air to one of the input ports as shown in Figure 2.</p>

---

**Application,  
 continued**



**Figure 1. Lowest Pressure Signal Selector Application.**



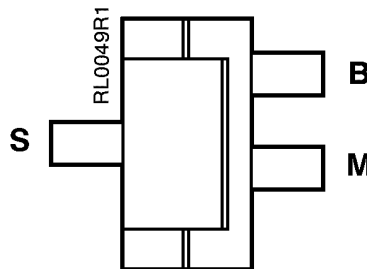
**Figure 2. Volume Amplifier Application.**

**Specifications**

Weight	0.05 lb (0.02 kg)
Housing	Glass-reinforced nylon
Diaphragm	Nylon-reinforced fairprene
Maximum air pressure	30 psig (210 kPa)
Maximum ambient temperature	140°F (60°C)
Air connections	3/16-inch dia. nipple for 1/4-inch OD Polyethylene tubing
Type of mounting	In-line
Air capacity @ ΔP = 2 psi	80 scim (22 ml/sec)
Air capacity @ ΔP = 2 psi when used as an amplifying relay with independent air supply	200 scim (55 ml/sec)
Air consumption	29 scim (8 ml/sec)
Dimensions	See Figure 4

**Operation**

Ports "S" and "M" are input ports and port "B" is the output port. See Figure 3. 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.



**Figure 3. Port Operation.**

## Mounting and Installation Instructions

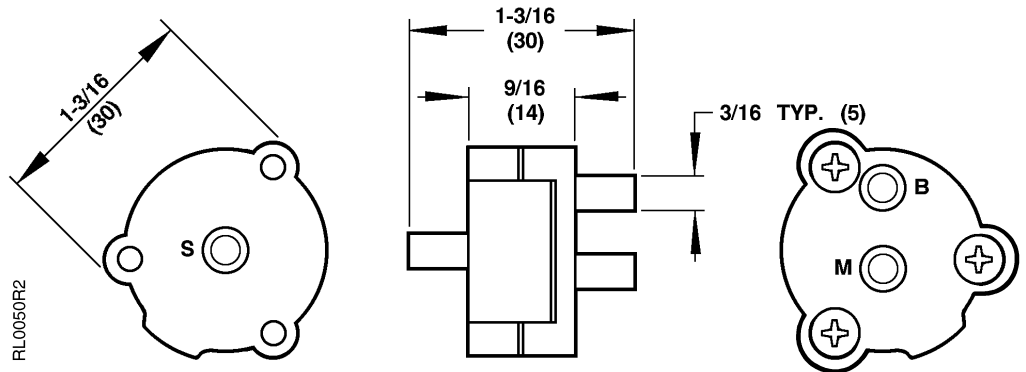
**NOTE:** Use clean, dry, oil-free instrument quality air only. *Do not use any other medium.*

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

## Dimensions



**Figure 4. Dimensions in Inches (Millimeters).**

Information in this publication is based on current specifications. The company reserves the right to make changes in specifications and models as design improvements are introduced. Product or company names mentioned herein may be the trademarks of their respective owners.

© 2005 Siemens Industry, Inc.

**Siemens Industry, Inc.**  
Building Technologies Division  
1000 Deerfield Parkway  
Buffalo Grove, IL 60089  
+ 1 847-215-1000

Your feedback is important to us. If you have comments about this document, please send them to [sbt\\_technical.editor.us.sbt@siemens.com](mailto:sbt_technical.editor.us.sbt@siemens.com)

Document No. 155-047P25  
Printed in the USA

**Page 3**