

**TAC Pneumodular™  
Averaging Relay  
Data Sheet**

The 2376-501 Averaging Relay is a proportional device designed for use in pneumatic control systems where the application requires operation of a final control device, or some other control action such as resetting a receiver-controller, by the average of the signals from two pneumatic devices. The 2376-501 also amplifies the volume of air available to the control device, thereby minimizing system lag.

A bias adjustment is provided which allows the branch output to be advanced or retarded up to 10 psig from the true average signal.

**Table-1 Ordering Data.**

TAC Wholesale Number	Replaces Model	Function
2376-501	R540	Averages two input signals
22-150	K502	Optional Mtg. Bracket

**Table-2 Active Connections.**

Port	Connected To
M	Main air
B	Branch output
S1	Input signal No. 1
S2	Input signal No. 2

**SPECIFICATIONS**

**Action:** Proportional.

**Adjustment:** Output may be advanced or retarded  $\pm$  10 psig by means of 5/64" hex wrench.

**Main Air Pressure:** 20 psig operating, 30 psig maximum.

**Air Capacity:** 8 SCFH

**Air Consumption:** 29 SCIM

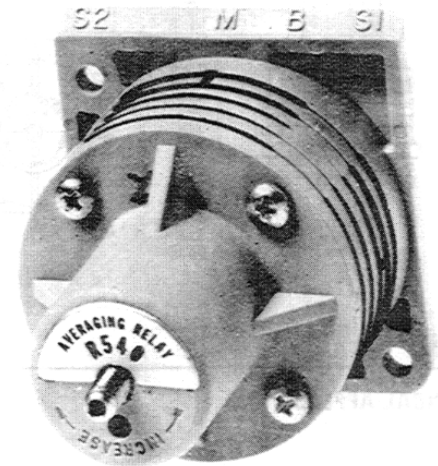
**Maximum Ambient Temperature:** 140°F

**Mounting:** Designed for use on 22-120 TAC Pneumodular manifold socket. This device can also be surface mounted by using the appropriate mounting bracket (see Mounting Instructions).

**Connections:** Barbed nipples for 1/4" O.D. polyethylene or 5/32" I.D. polyurethane tubing.

**Material:** Glass-filled nylon.

**Caution:** This device should be installed by a qualified person with due regard for safety as improper installation could result in hazardous condition.



**GENERAL INSTRUCTIONS**

This device is to be used on clean, dry, oil free control air only and will operate properly when mounted in any position.

The inherent reliability of this device is enhanced and prolonged through regular inspection and preventive maintenance by a qualified control expert. Should this device become inoperative, it should be replaced by a new unit.

**MOUNTING INSTRUCTIONS & DIMENSIONS**

**Panel Mounting**

This device has been designed to be mounted on a TAC Pneumodular manifold socket. One socket, one gasket and two mounting screws are required in addition to the appropriate manifold backplate. Refer to the TAC Pneumodular Parts and Accessories Data sheet for complete ordering information.

**Field Mounting**

This device may also be mounted without the backplate, socket and gasket to replace competitive devices by using an optional 22-150 mounting bracket or by using the plastic mounting strap and adhesive base provided.

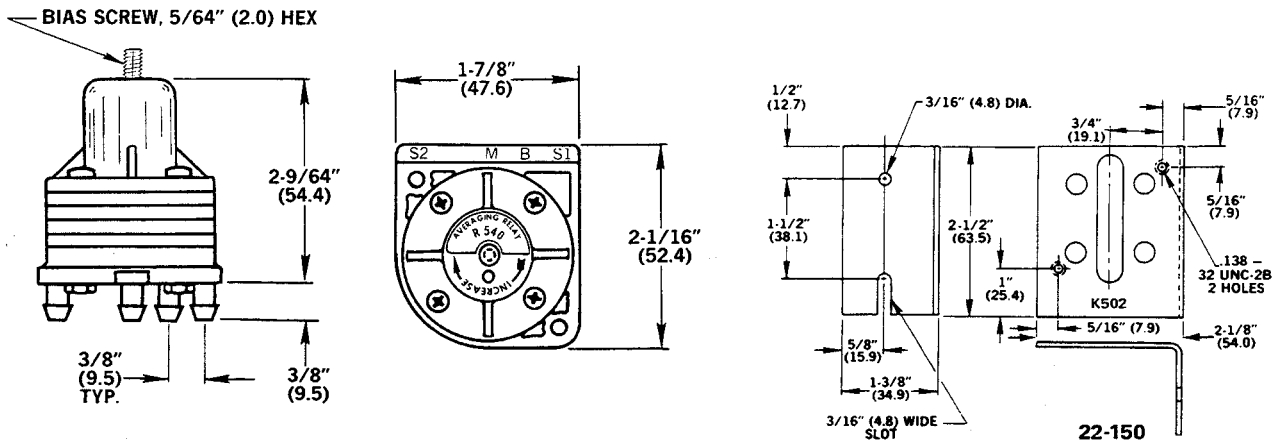


Figure-1 Dimensions.

## TYPICAL APPLICATION

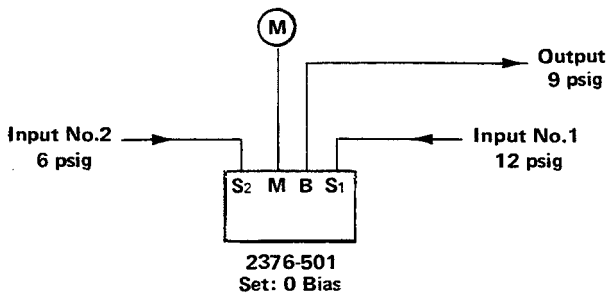


Figure-2 Typical Application.

The branch output equals the sum of the two inputs divided by 2. In the example above, Input No. 1 (12 psig) plus Input No. 2 (6 psig) equals 18 psig divided by 2 providing a branch output of 9 psig. The bias adjustment is plus or minus the average of the two input signals.