

The 2354 Series Diverting Relays are snap-acting devices designed for a variety of switching and interlocking functions in pneumatic control systems where the applications may require one or more of the following functions: feeding and exhausting branch lines, diverting a supply line to either one of two branch lines, diverting either one of two supply lines to one branch line.

**Table-1 Oding Data - Relays.**

TAC UNI-LINE Number	Replaces Model	Switching Action	Factory Settings
2354-501	R504-1	SPDT	4-8 psig
2354-502	R504-2		16-19 psig
2354-503	R504-3	DPDT	4-8 psig
2354-504	R504-4		16-19 psig

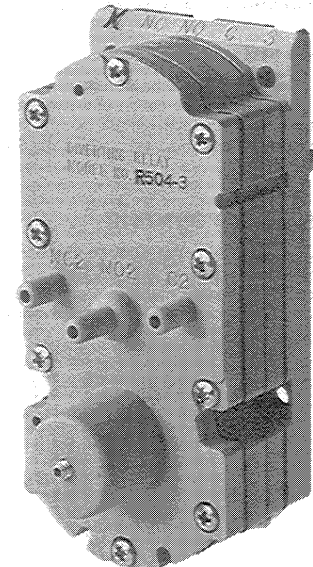
**Table-2 Oding Data - Accessories.**

TAC UNI-LINE Number	Replaces Model	Description
22-151	K503	Optional Mtg. Bracket

**Table-3 Active Connections.**

PORT	CONNECTED TO
C	Common
C <sub>2</sub> *	Common No. 2
NO	Normally Open
NO <sub>2</sub> *	Normally Open No. 2
NC	Normally Closed
NC <sub>2</sub> *	Normally Closed No. 2
S	Input Signal

\*2354-503 & 504 only



## SPECIFICATIONS

### Action:

2354-501

Below 4 psig: NO and C are connected

Above 8 psig: NC and C are connected

2354-502

Below 16 psig: NO and C are connected

Above 19 psig: NC and C are connected

2354-503

Below 4 psig: NO and C are connected, NO<sub>2</sub> and C<sub>2</sub> are connected

Above 8 psig: NC and C are connected, NC<sub>2</sub> and C<sub>2</sub> are connected

2354-504

Below 16 psig: NO and C are connected, NO<sub>2</sub> and C<sub>2</sub> are connected

Above 19 psig: NC and C are connected, NC<sub>2</sub> and C<sub>2</sub> are connected

**Maximum air pressure:** 30 psig

**Air capacity:** 60 SCFH

**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

**Adjustments:** The differential band (fixed at 4 psi) may be adjusted between 4 - 8 psig and 18 - 22 psig respectively by means of a 1/16" hex wrench

## GENERAL INSTRUCTIONS

These devices are to be used on clean, dry, oil free control air only and will operate properly when mounted in any position.

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

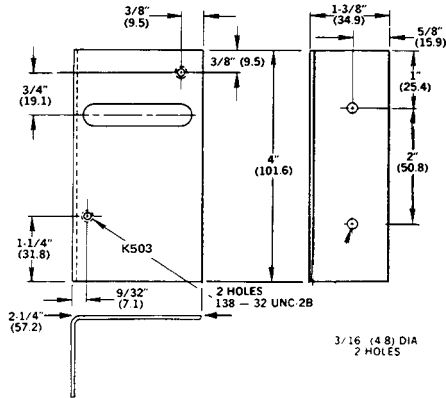
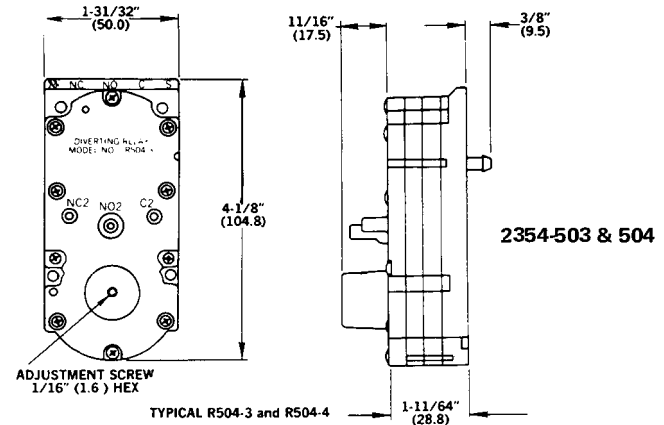
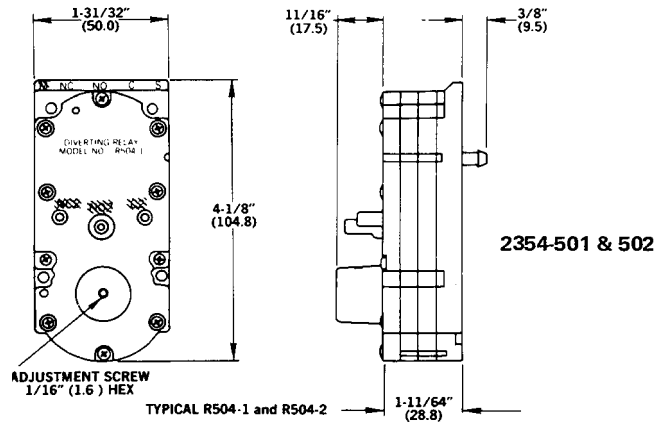
## MOUNTING INSTRUCTIONS & DIMENSIONS

### 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.

### Surface Or Field Mounting

This device may also be mounted without the backplate, socket, and gasket to replace competitive and old Robertshaw devices by using an optional 22-151 mounting bracket or by using the plastic mounting strap and adhesive base provided with the device.

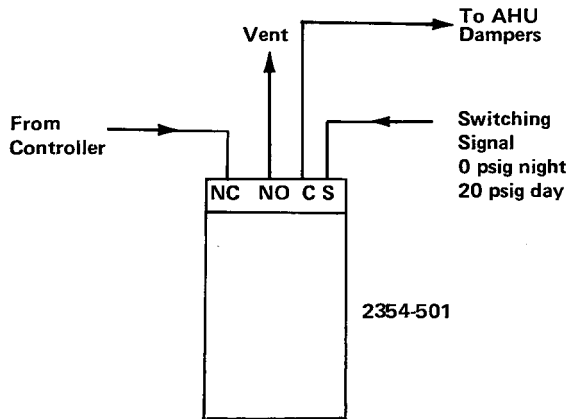


22-151

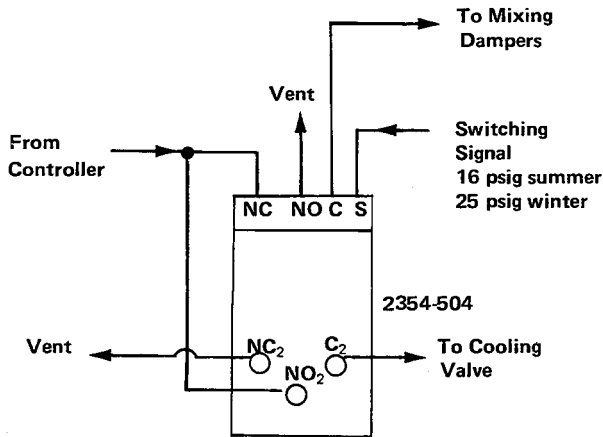
## TYPICAL APPLICATIONS

In the application shown, during day operation, the relay is switched C to NC by the day/night main; and the controller modulates the AHU dampers. During night operation, the relay is switched C to NO. The controller signal is blocked and air to the AHU dampers is vented to allow the dampers to remain closed to outside air when the unit cycles to maintain night temperature.

In the application shown, during winter operation, the relay is switched C to NC and C<sub>2</sub> to NC<sub>2</sub> by the summer/winter main. The controller modulates the unit mixing dampers, and the air supply to the NC cooling valve is vented. During summer operation, the relay is switched C to NO and C<sub>2</sub> to NO<sub>2</sub> by the summer/winter main. The air supply to the mixing dampers is vented, and the controller modulates the cooling valve.



**DAY-NIGHT CHANGEOVER**



**SUMMER-WINTER CHANGEOVER**

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