# 2354 Series **Diverting Relays**



Data Sheet

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 Ordering Data - Relays.

TAC Model Number	Replaces Model	Switching Action	Factory Settings
2354-501	R504-1		4-8 psig
2354-502	R504-2	SPDT	18-22 psig
2354-503	R504-3		4-8 psig
2354-504	R504-4	DPDT	18-22 psig

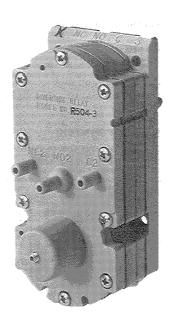
Table-2 Ordering Data - Accessories.

TAC Model Number	Replaces Model	Description	
22-150	K502	Optional Mtg. Bracket	

**Table-3 Active Connections.** 

PORT	CONNECTED TO	
С	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 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.

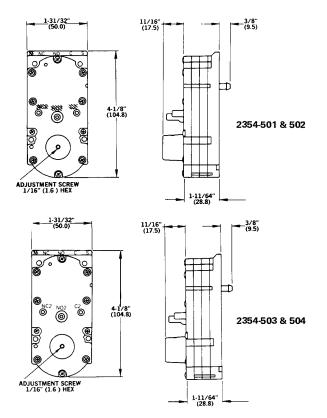
#### MOUNTING INSTRUCTIONS & DIMENSIONS

## **Panel Mounting**

This device has been designed to be mounted on a 22-120 manifold socket. One socket, one gasket, and two mounting screws are required in addition to the appropriate manifold backplate. Refer to the Parts and Accessories Data Sheet for complete ordering information.

# **Surface Or Field Mounting**

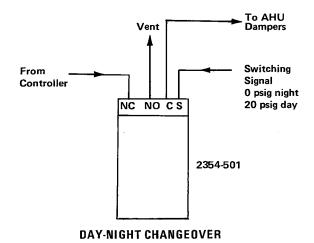
This device may also be mounted without the backplate, socket, and gasket to replace competitive and old Robertshaw devices by using an optional mounting bracket or by using the plastic mounting strap and adhesive base provided with the device.

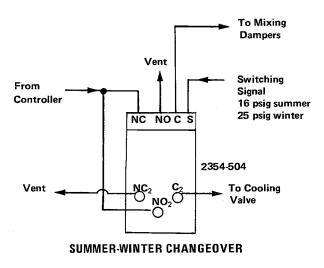


#### TYPICAL APPLICATIONS

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  $C_2$  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  $C_2$  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.





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