

**TAC Pneumodular® Reversing Relay
Data Sheet**

The 2360-501 Reversing Relay is a proportioning device designed for use in pneumatic control systems where the application requires the reversing of a proportional signal from a controlling device. The 2360-501 branch line pressure decreases in direct proportion to an increase in input signal pressure and also amplifies the volume of air available for the final control device, thereby minimizing system lag.

The unit is factory adjusted to decrease the branch line pressure from 16 psig to 0 psig as the signal pressure increases from 0 psig to 16 psig. A bias adjustment is provided to retard or advance the output signal if required by a particular application.

Table-1 Ordering Data.

TAC Uni-line Number	Replaces Model	Function	Bias Adjustment
2360-501	R516	Reversing	±10 psig

Note: Includes plastic mounting strap and adhesive-backed mounting base.

Table-2 Accessories.

TAC Uni-line Number	Replaces Model	Description
22-150	K502	Optional mounting bracket

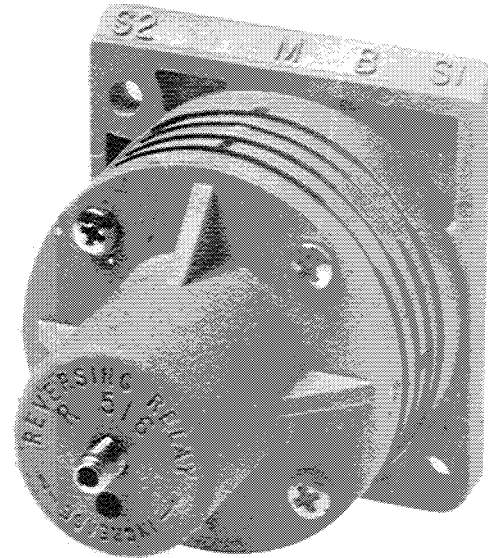
Table-3 Active Connections.

Port	Connected To
M	Main Air
B	Branch Output
S ₁	Input Signal

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

GENERAL INSTRUCTIONS

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

SPECIFICATIONS

- Action:** Proportional - reverses input signal.
- Main Air Pressure:** 20 psig normal 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").
- Air Connections:** barbed nipples for 1/4" O.D. polyethylene or 5/32" I.D. polyurethane tubing.
- Material:** glass-filled nylon.

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 (form number 1-627) 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 22-150 mounting bracket or by using the plastic mounting strap and adhesive base provided with the device.

ADJUSTMENTS

The branch output pressure of the 2360-501 may be adjusted to equal 20 psig plus bias (+10 psig to -10 psig) minus the input pressure. Regardless of the input pressure and bias adjustment, the branch output cannot be less than zero nor more than main air pressure. See "Input vs Output" chart (Figure 2). The 2360-501 is factory adjusted for a zero psig bias and can be adjusted by means of a 5/64" hex wrench.

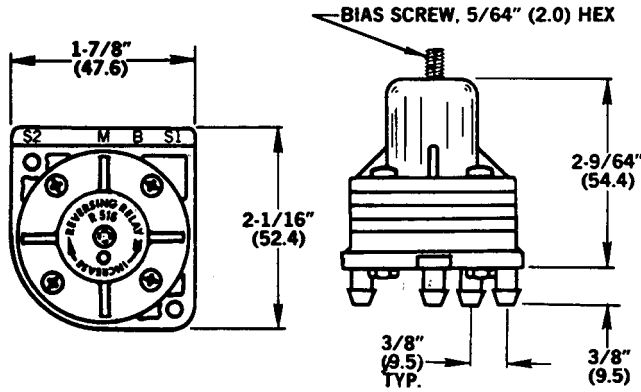


Figure-1

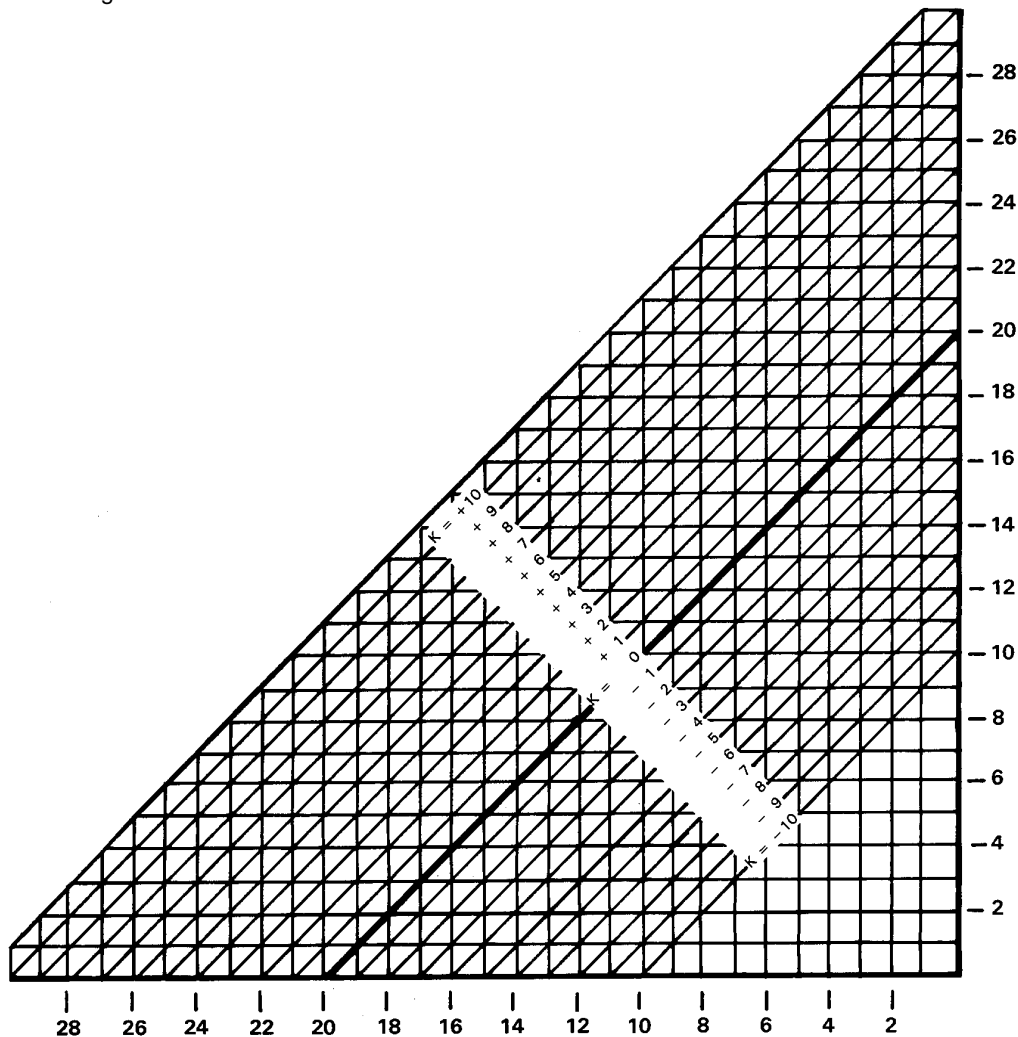


Figure-2 Input vs Output Chart.

TYPICAL APPLICATION

In the application shown in Figure 3, the heating and cooling valves are being controlled in sequence by a direct acting controller. The valves were specified to be normally closed and to ensure that the valves would close properly, 8-13 psig spring ranges were selected. The 2360-501 Reversing Relay is used to reverse the output of the direct acting controller to open the steam valve on a drop in temperature. It is necessary

to adjust the bias of the reversing relay to -5 psig so that the chilled water valve will be closed before the steam valve starts to open. Refer to Figure 1 to determine the amount of bias necessary for this or any other specific applications.

Note: The main air pressure limits the output of the branch. For example, a 15 psig main will not allow a branch output of more than 15 psig regardless of the signal input.

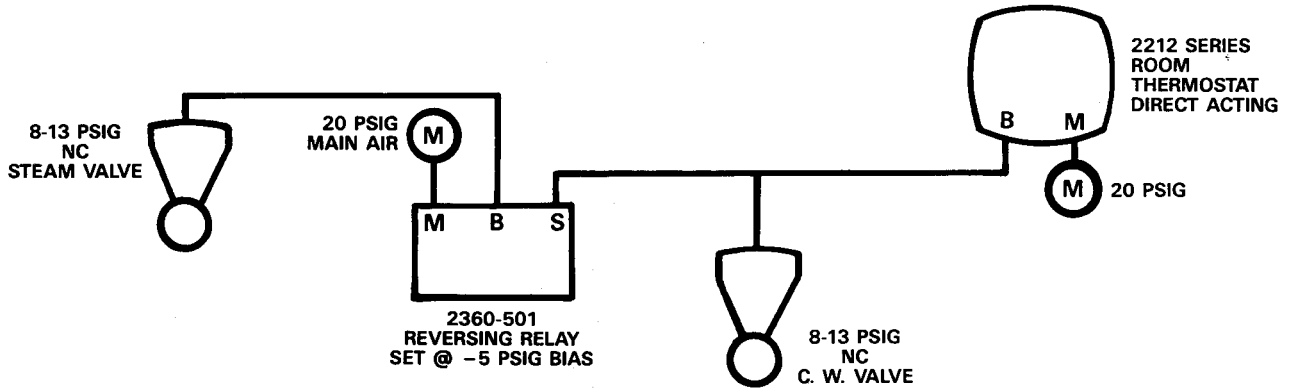


Figure-3

Copyright 2008, TAC
All brand names, trademarks and registered
trademarks are the property of their respective
owners. Information contained within this
document is subject to change without notice.

F-24553-2

TAC
1354 Clifford Avenue
P.O. Box 2940
Loves Park, IL 61132-2940
www.tac.com

t.a.c. [®]
by Schneider Electric