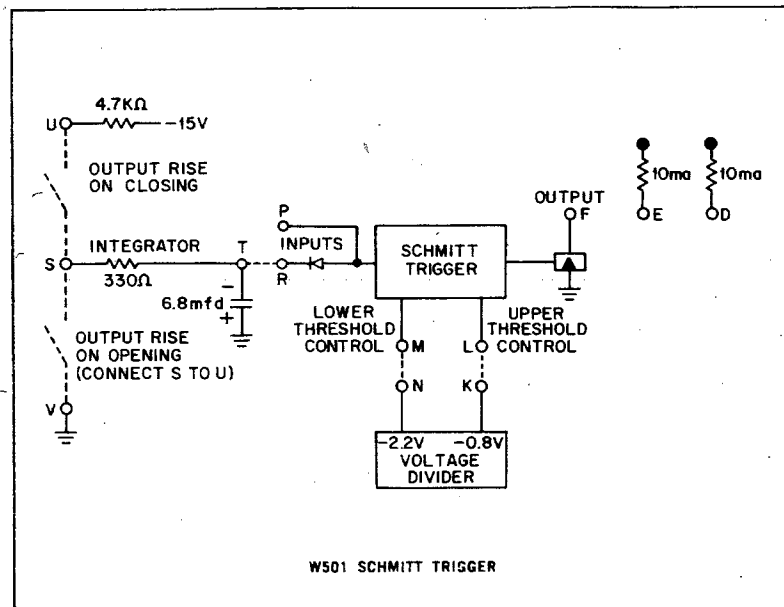


NEGATIVE INPUT CONVERTER AND SCHMITT TRIGGER TYPE W501

W
SERIES



The W501 contains a Schmitt trigger circuit which produces standard levels as a result of some outside activity such as the closure of a switch or relay. A ground level input produces a -3v level output, and a negative level input produces a ground level output. Nominal switching thresholds of -2.2v and -0.8v are obtained by connecting terminal L to terminal K and terminal M to terminal N. The switching thresholds can be varied over the range of 0 to -2.5v by applying external voltage levels to terminals M and L. Terminal M controls the lower level threshold, and terminal L controls the upper level threshold. The module also contains an integrating circuit to filter contact bounce when a switch or relay is used to generate the levels.

INPUTS: Diode — Any signal at pin R between $\pm 10\text{v}$ will not cause damage to the circuit. The input impedance is 7500 ohms to $+10\text{v}$ when the input is more negative than the lower threshold, and is an open circuit when the input is more positive than the upper threshold. The output will switch from -3v to ground if the input voltage goes more negative

than the lower threshold after having been more positive than the upper threshold. The output switches from ground to -3v if the input voltage goes more positive than the upper threshold after having been more negative than the lower threshold. Upper and lower thresholds must be at least $\frac{1}{2}\text{v}$ apart. The 2 ma clamped load at pin D cannot be used to bring this input to -3v since it sinks insufficient current.

Direct: — Pin P provides a bypass of the diode connected at pin R. This node input can be used with R001 diodes to form a NANDed input to the W501 as shown in Fig. 1 below. In addition, this input can be used to obtain an integrated input when many contacts or switches are connected as shown in Fig. 2 below. This latter scheme gives an output rise when contacts close.

Integrating — The input to the integrating circuit is a switch or relay contact. To obtain output rise when contacts close connect contacts between pin S and U and connect pins R and T. To obtain output rise when contacts open, connect contacts between pin S and ground, connect pin V to pin S, and connect pin R to pin T.

W501 — \$13.00

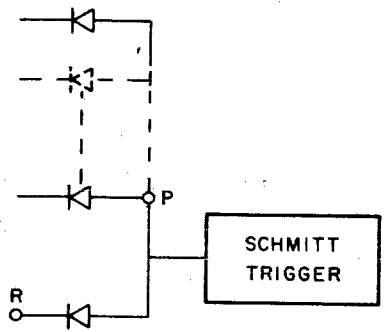


Figure 1. NANDed Input

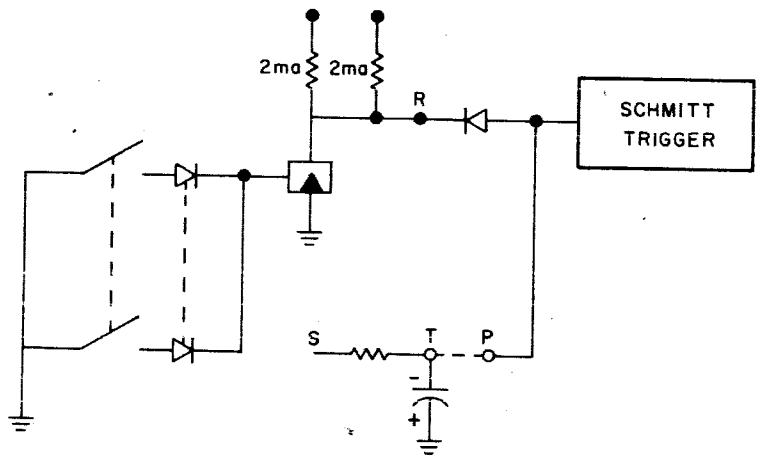


Figure 2. Integrated Input