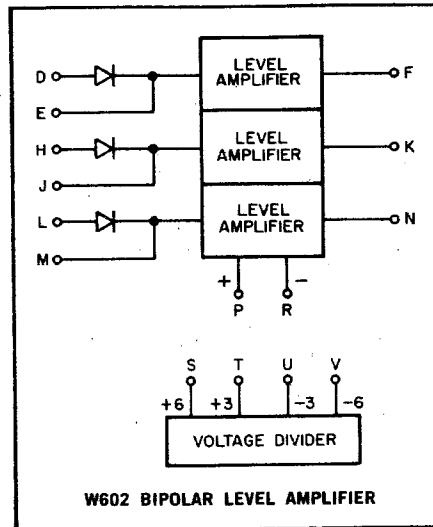


# BIPOLAR OUTPUT CONVERTER TYPE W602

**W  
SERIES**



For driving EIA standard communication lines and other applications demanding levels both positive and negative with respect to ground, the W602 provides up to  $\pm 15$  ma at up to  $\pm 6$ v. There are three inverting amplifiers on the module. To control noise on long transmission lines the output rise and fall times are intentionally slowed to roughly 50 nsec/v, and at low repetition rates capacitance may be connected externally from outputs to ground to further increase rise and fall times. Output upper levels can be set at +6v, +3v, or 0v, and lower levels can be set at -6v, -3v, or 0v using clamp voltage supplies provided.

**INPUTS:** Signals — Diode inputs require 1 ma drive at ground. Input gating can be achieved by connecting R001 or R002 diodes at node inputs. Clamp Voltages — Voltages from 0v to +6v may be applied to pin P to establish the upper output level for all

three amplifiers. Each circuit whose output is high supplies 4 ma tending to make pin P more positive. Voltages from 0v to -6v may be applied to pin R to establish the lower output level for all three amplifiers. Each circuit whose output is low supplies 2 ma tending to make pin R more negative.

**OUTPUTS:** Signals — Maximum output current from each circuit is  $\pm 15$  ma. Outputs are high when inputs are low, and vice versa. Momentary shorts from outputs to ground will not cause damage. If switching speed must be reduced to reduce noise generation, capacitance to ground sufficient to extend transient times to 50% duty factor may be added from outputs to ground. Clamp Voltages — Voltage supplies are adequate for use with the three circuits on the module.

**POWER:** +10v(A)/32 ma; -15v/31 ma.