APPLICATION NOTE #2

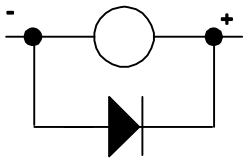
Application Note 2: Transient Suppression on Inductive Devices

Entertron Industries, Inc. recommends using suppression when driving inductive loads. These loads which include solenoids, relays etc. are perhaps the most troublesome noise generators and require suppression to protect our controllers output contacts. Note that when using suppression on electromechanical devices the operation speed of the device may be reduced significantly.

DC LOADS

A diode with 1 Amp current capacity and inverse dielectric strength of 250V is acceptable for most applications. A 1N4003 or equivalent is suitable. The diode should be placed across each DC coil.

INDUCTIVE DC OUTPUT DEVICE LOAD SUPPRESSION



DIODE

AC LOADS

A Metal-Oxide Varistor (MOV) may be used across each AC coil. We recommend a varistor with 150 RMS continuous rating, 70 joules energy, 325 max clamping voltage. A General Electric V150LA20A or equivalent is suitable. An R-C circuit may also be used across each AC coil. The values recommended are 0.1 uF, 600V capacitor in series with a ¼ Watt 100 ohm resistor.

INDUCTIVE AC OUTPUT DEVICE LOAD SUPPRESSION