

Using the 770MAX Relays to Drive Inductive Loads

Technical Note TN-0117

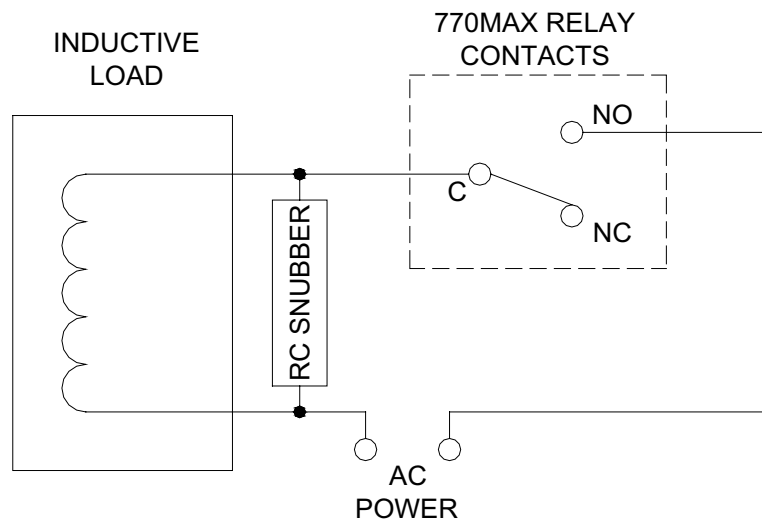
When the 770MAX Relay outputs are used to drive some types of inductive loads, protection should be provided for the relay contacts.

Opening the relay contact to an inductive load can cause the stored energy in the inductor to create a counter EMF (electro-magnetic force). This voltage across the open relay contacts can cause arcing which can cause contact wear as well as possible process upsets within the 770MAX meter. The use of an RC Snubber will provide the protection needed to the relay circuit.

Mettler-Toledo Thornton Snubber Kit, part number 58 079 014 provides the components needed for protecting four relay circuits. Each kit includes four RC Snubber networks (Reference RC Snubber network part number is Quencharc 104MO6QC100 from CDE Cornell Dublier or ITW Paktron). One RC Snubbers network is required for each 770MAX relay circuit utilized. The kit also includes wire insulation used to cover the leads from the Snubber to eliminate the risk of electric shock.

RC Snubber Installation:

1. Place supplied insulation tubing over lead wires on RC Snubber network
2. Snubber leads are to be connected in parallel with the inductive load contacts as the wiring diagram below demonstrates.



For further assistance or more information regarding the use and installation of these components, please contact Thornton Technical Service at +1-781-301-8690 or 800-642-4418.

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