

TOTALINE® RELAYS

RELAY APPLICATION DATA

CONTROL RELAYS

The main function of any relay is switching electrical circuits. Selection depends on load characteristics which should be matched closely to the rating of the relay to avoid contact point deterioration.

Relay ratings in amperes are listed in this brochure as inductive or **resistive**.

Inductive Rating - applies to switching of motors and coils for contactors and relays.

Resistive Rating - applies to switching of electric resistance heating elements.

The relays shown on the following pages have been classified into two major categories, power rated relays for intermediate loads and pilot duty relays for low level switching.

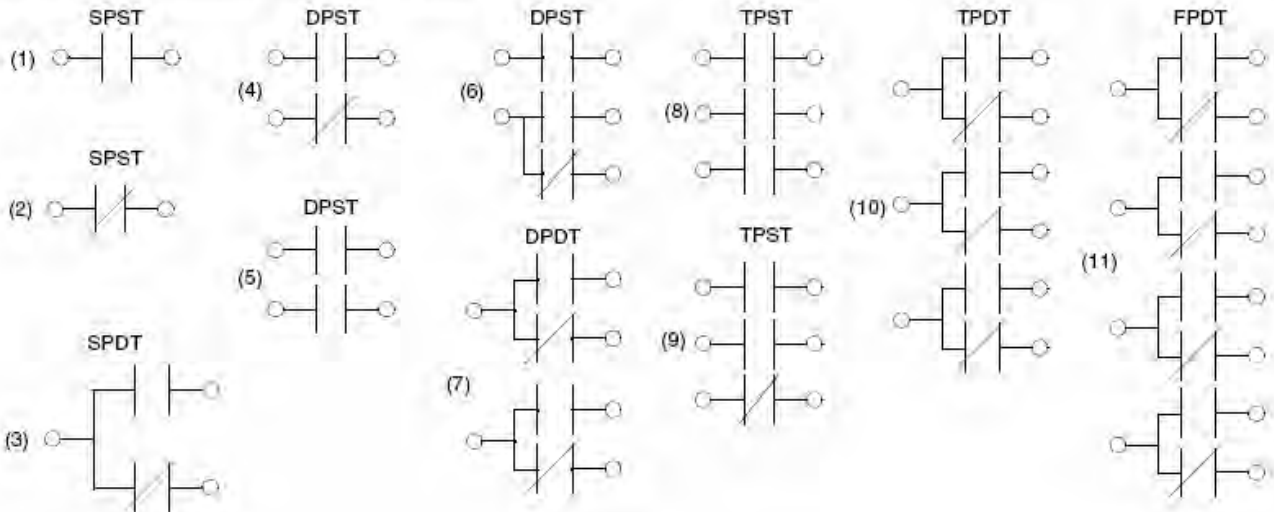
PILOT DUTY RELAYS: Contacts are made of a fine silver alloy and are shaped and sized for low level current switching. The fine silver alloy contact provides a very low surface resistance for the best possible contact life. Use on higher or intermediate loads would melt the relay points causing a welded contact.

POWER RATED RELAYS: Contacts are generally made of silver cadmium oxide with a very high surface resistance. They are sized larger than pilot duty contacts to handle switching of intermediate loads during which a slight arc may occur. Due to being larger in size, they must operate with a lower unit pressure on the contacts and, for satisfactory performance, depend on the makebreak arc process to break down the resistance of deposits formed on the contacts.

Use of this type relay to switch low level loads is not recommended by Carrier or its suppliers due to the lower contact pressure, the high surface resistance of the contacts and the absence of the slight arc during switching. A continuing build-up of deposits on contact points will cause a non-conductive surface and a failed relay. In some instances a power rated relay will fail to switch a pilot duty load on initial use.

For reliable relay operation, it's advisable not to use a power rated relay for a pilot duty relay or vice versa.

CONTACT ARRANGEMENT DIAGRAMS



DB - Indicates contacts are Double Break type in which stationary contacts are connected by a bridging bar. Two examples of a double break arrangement are shown with contacts #1 and #2 stationary. Both are SPST, normally closed, double break arrangements.

