

## 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.

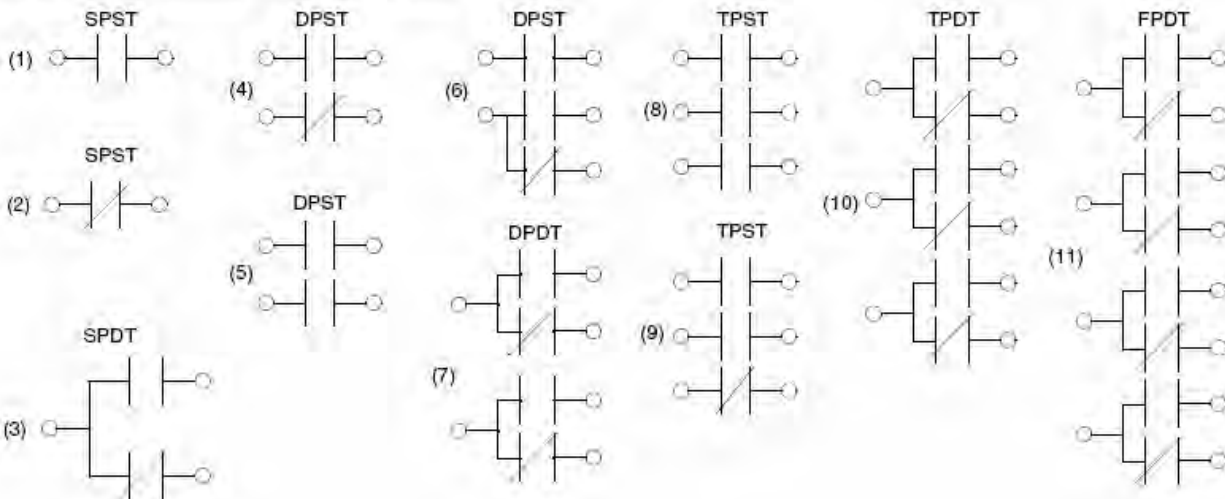
**PILOT DUTY RELAYS:** Contacts are made of a fine silver alloy and are shaped and sized for low level current switching. The fine silver alloy contact provides a very low surface resistance for the best possible contact life. Use on higher or intermediate loads would melt the relay points causing a 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 make-break arc process to break down the resistance of deposits formed on the contacts.

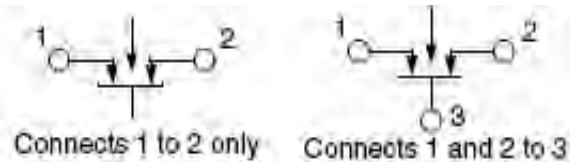
Use of this type relay to switch low level loads is not recommended by Carrier or its suppliers due to the lower contact pressure, the high surface resistance of the contacts and the absence of the slight arc during switching. A continuing build-up of deposits on contact points will cause a non-conductive 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 below with contacts #1 and #2 stationary. Both are SPST, normally closed, double break arrangements.



# ELECTRICAL

## TOTALINE® RELAYS

### FAN & POWER RELAYS

#### GENERAL PURPOSE RELAY

Dependable, low cost solution for air conditioning and heating switching.

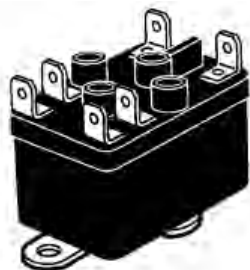
#### Insulating Material -

Constructed of UL recognized Class B insulating material

#### Temperature Range -

-40° to 150° Fahrenheit

#### SINGLE POLE FAN RELAYS- SIMILAR TO TYPE 84 FAN RELAYS

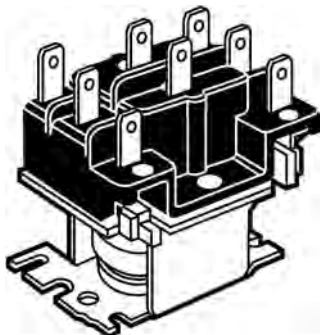


P262-A

- Fan control
- Appliances
- Business Machines
- Photoelectric control and general purpose switching

PART NO	DESCRIPTION	CONTACT RATING 125/250 VAC
P283-0290	SPST, 24 V COIL	8AMPS(IND.)16 AMPS(RES.)
P283-0291	SPST, 110 V/120 V COIL	CONTINUOUS
P283-0292	SPST, 208/240 V COIL	25 AMPS INRUSH
P283-0293	SPDT, 24 V COIL	8 AMPS (IND.) 8 AMPS (RES.)
P283-0294	SPDT, 110/120 V COIL	CONTINUOUS
P283-0295	SPDT, 208/240 V COILS	18 AMP INRUSH

#### TWO POLE FAN RELAYS



- Vending machines
- Appliances
- Safety control
- Fan control
- Heating
- Air conditioning and general purpose switching

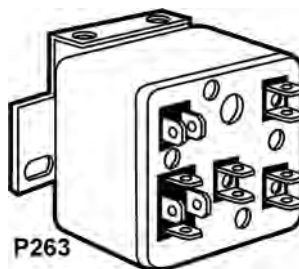
PART NO	DESCRIPTION	TERMINALS	
		1-2-3	4-5-6
P283-0340	24 V COIL	POWER	POWER
P283-0341	110 V/120 V COIL	POWER	POWER
P283-0342	208/240 V COIL	POWER	POWER
P283-0343	24 V COIL	POWER	PILOT
P283-0344	110 V/120 V COIL	POWER	PILOT
P283-0345	208/240 V COIL	POWER	PILOT
P283-0346	24 V COIL	PILOT	PILOT
P283-0347	110 V/120 V COIL	PILOT	PILOT
P283-0348	208/240 V COIL	PILOT	PILOT

#### HEAVY DUTY FAN RELAYS

PART NO	CONTACT ARRANGEMENT	DESCRIPTION
P283-0360	SPDT - NO	24 V COIL
P283-0370	SPDT - NO	24 V COIL
P283-0380	SPNO - SPNC	24 V COIL

## TOTALINE® RELAYS/ACCESSORIES

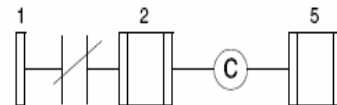
### TOTALINE® START RELAYS



P263

- Single pole, NC relays
- Totally Enclosed
- Contacts rated for a max. arc rupturing capacity at 600 vac & under.
- 1/4" Quick connects
- G.E. 3arr3 type & rbm 128000 type
- 50/60 hz

#### CONTACT ARRANGEMENT DIAGRAM:



2-1/4"H x 2-1/4"W x 2-7/16"D

PART NO	CONTACT RATING	PICKUP VOLTS	DROPOUT VOLTS	MAX OPER VOLTS
P283-9924	35 Amp	162 -175	40 - 90	336
P283-9928	15 Amp	180 -195	40 - 105	375
P283-9926	25 Amp	111 -124	20 - 45	170
P283-9916	50 Amp	140 -152	33 - 77	253
P283-9917	50 Amp	162 -175	55 - 115	336
P283-9919	50 Amp	171 -184	40 - 90	336
P283-9921	50 Amp	180 -193	55 - 115	336
P283-9923	50 Amp	180 -195	40 - 105	395
P283-9915	50 Amp	195 -224	60 - 123	420
P283-9913	50 Amp	204 -233	60 - 121	420
P283-9922	50 Amp	223 -254	60 - 140	395
P283-9918	50 Amp	239 -268	60 - 135	495
P283-9914	50 Amp	262 -290	60 - 121	420
P283-9912	50 Amp	277 -305	75 - 150	495
P283-9911	50 Amp	295 -324	60 - 135	495