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Glossary of Terms

A glossary divided into two parts; Part A - Relay Types and ...
Part B – Relay terms and characteristics

Part A - Relay types

A.C. Immune

A dc relay which will not operate if an ac voltage up to a stated value is applied to the relay coil.

Biased

A dc relay which will only operate with one particular polarity of supply. It will not operate if supply polarity is reversed.

Double Wound Coils

A neutral dc relay with two equal independent windings on the coil. Each winding will operate the relay so that relay can be operated from either of two independent sources.

Lamp Proving Relays

A neutral dc relay designed to operate from the current supplied to signal lamps and to release when lamp or lamps burn out. Some relays incorporate a bridge rectifier to operate from ac lamp currents.

Magnetically Latched

A dc relay which will only operate with one particular polarity of supply and remains operated when supply is removed. A second winding of the relay coil must be energised with the correct polarity supply to release the relay.

Neutral

A dc relay which will operate with either polarity of supply to the coil.

Sensitive Relay

Generally a neutral relay with high coil resistance and low power consumption.

Slow Acting Relays

A neutral dc relay with a built in copper slug to delay the operation or release action (time delay range 0-500 ms). Units incorporating various timing methods such as thermal, capacitor/resistor, electronic or synchronous motor (time delay 0-4 minutes).

Track Relay

Generally a neutral relay with low coil resistance and low power consumption.

Train Carried Relays

These relays are basically a standard design Q type relay with special relay bases to enable them to fit on anti-vibration resilient mountings.

Twin Relays

A unit having two independent relays, with up to 8 contacts each, all in a standard 'Q' type case. Both relays are of the same standard of construction and safety as the single 'Q' relays.



Part B - Relay terms and characteristics

Back Contact

A contact made when the relay is de-energised.

Front Contact

A contact made when the relay is energised.

Full Operate

The condition the relay assumes when its armature has complete full travel and maximum contact pressure is obtained.

Heavy Duty Front Contacts

These contacts are Sig/Sil contacts fitted with magnetic blowouts to extend the life of the contacts when switching high current loads.

Interruption Time

The time interval the supply to the relay can be interrupted without the relay releasing.

Metal to Metal Contacts

These are 'Non-Safety' contacts. Both elements are of the same material that can be silver, silver cadmium oxide or 60/40 silver palladium. The silver cadmium oxide is 'Weld Resistant' but not 'Non-Weld'.

MTBF

Mean time between failures.

MTBWSF

Mean time between wrong side failures.

Operate (also known as Pick-Up or P.U.)

The condition of the relay when all front contacts are just made.

Operate Time

The time interval measured between switching on the supply and the last front contact making.

Operate Transit Time

The time interval measured between the first back contact breaking and the last front contact making.

Percentage Release

The ratio of the actual release value : operate value, multiplied by 100.

Release (also known as Drop Away or D.A.)

The condition of the relay when all front contacts have opened.

Release Transit Time

The time interval measured between the first front contact breaking and the last back contact making.

Vital (Safe)

Defines circuits and components that comply with stringent requirements of reliability and intrinsic safety.

SIG/SIL Contacts

These are 'Non-weld' safety contacts. One contact is of 'silver impregnated graphite' and the other silver.



Un-drilled plugboard
Part No. E7218/1

Representation of Relay,
Plugboard and Retaining clip
(Clip Part No. J4136/1)

