RELAY Q & A

Why gold-flashed contacts?

Gold is a better conductor of electricity then silver. Our relays come standard with gold flashed contacts for better conduction. Most relay manufacturers offer silver as the standard and gold only as a special offer.

Why high dielectric strength / arc barrier?

- High dielectric strength: The space between the terminals will not allow the electricity to pass through to the next pole. There are flutes on the bottom of the relay that increase the surface area between poles. Because of this increased surface area, there is no voltage restriction placed on this product.
- Arc Barrier: The plastic piece that is on the front of the relays that separates the contact poles. This feature protects the poles so that the electricity cannot jump from one contact to another.

Why a 5 amp rating?

By having achieved this high contact rating, our product can withstand millions of operations with minimal wear.

Why color-coded coils?

This allows for quick voltage identification.

Why plug-in / solder terminal?

Cyberdyn Systems has solved all of the above problems. Regardless of the manufacturer, our relay will function and the LED will light. This is a great feature for companies that service several different makes and models of elevators on their route. Also, our bifurcated models, with gold flash, are priced lower than our competitors' basic model.

Cyberdyn Systems understands the elevator industry concerns and answers them with solutions. We maintain bifurcated and standard contact bi-polar relays at our facility for immediate delivery.

Why bifurcated contacts?

We had so many inquiries about 4PDT bifurcated contact relays and their benefits to microprocessor units that we decided to create this information sheet:

- Reduces Contact Bounce – When a relay contact engages, the contact has a tendency to bounce. In a microprocessor environment (and because of the processor sensitivity) this could cause a false reading. A bifurcated contact reduces or eliminates the problem.
- Increases Reliability – Because there are two contact leafs, one leaf will engage first – then the second – when current is applied. This reduces the wear of the contacts that, in turn, increase the overall life cycle of the relay.
- Assists in switching – When the circuit switching is being performed in the same voltage / current environment, the bifurcated contacts conduct the switching more efficiently. If you have a 110/120 voltage coming in and the switching is performed at the same voltage, standard contacts are recommended. However, if any of the above situations are a concern, bifurcated contacts may fix some of the nagging, reoccurring problems.

Due to the increase in microprocessors in the elevator industry, bifurcated relays are becoming more common. The problem has always been cost and availability. These are usually special order items and are cost prohibited. We have seen the price of a bifurcated relay priced as high as US $27 for one relay. Because of the special ordering and the cost, most elevator companies will not consider using bifurcated relays, regardless of the advantages.

Why Bi-Polar LED?

Several relay manufacturers produce the same general-purpose 4 pole relay, and when placed next to each other, look the same. However, some relay manufacturers have the positive input on the 14^{th} pole of the relay – other than on the 13^{th}. With this in mind, engineers design their boards to operate with this brand of relay – and the purchasing department is told that only this relay brand will work on their boards. This creates a propriety situation that no company desires. In addition, because the LED is in series, the LED will light regardless of which pole is positive.