# What is a Safety Relay?

A safety relay contains force guided contacts; they are also known as captive, locked or positive-guided contacts. Force guidance in a relay means that the contacts in a contact set must be mechanically linked together so that it is impossible for the NO (normally open) and NC (normally closed) contacts to be closed at the same time. The contacts are linked so that no one contact in a relay can change state without changing all the contacts in that relay. There must be a 0.5 mm minimum air gap between the open contacts for the entire service life of the relay, even in the case of a failure. The force guidance of the relay contacts must always be preserved even when a relay part fails to function correctly.

## Equipment Controls Systems

- Elevators and escalators
- Cranes
- Door and gate drive systems
- Printing and textile machinery
- Robots
- Stamping machines
- Medical equipment
- Cutting machines
- Rail transportation systems
- Signaling systems
- Press systems

## Typical Applications

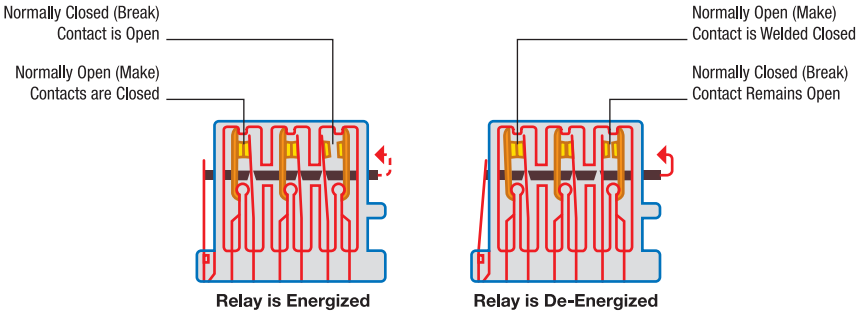
- Emergency stop modules
- DIN Rail safety modules
- Safety door controls
- Two-hand operating devices
- Pressure mat controls
- Light barriers and curtains
- Speed controls
- Monitoring devices

## FEATURES

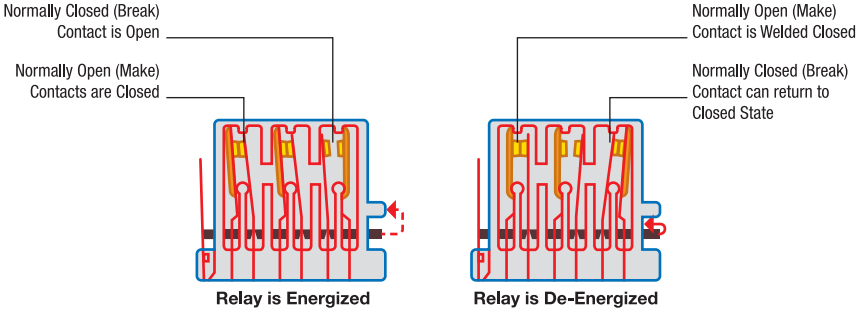
- 2-8 output contacts
- International approvals: TÜV, UL, cUL
- Quality control check for each safety relay
- Forced-guided contacts, all gold flash plated
- Contact Gap > 0.5 mm throughout life of relay
- DC Coils
- Various contact materials, mixed contact material optional
- High coil voltage range
- High switching voltage
- Solid connection between coil and contact housing
- Compact size
- Crown contacts
- Custom design available

## Comparison During Failure

### Forced-Guided Relay Contacts




### Standard Relay Contacts

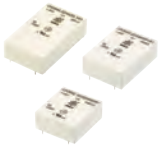


# DOLD Safety Relays
## AT A GLANCE

Order Catalog
PN - 280

| | Current Rating | | | Contacts | | | | | | Mounting | | | | Protection Type | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 6A | 8A | 10A | DPST | DPDT | 3PST | 4SPT | 6SPT | 8SPT | Direct PC Board | PCB socket Available | DIN socket Available | Interface Module | RT II (flux-proof) | RT III (wash-tight) | Optional RT III |
| OA5642 | | • | | • | | | | | | • | | | | | • | |
| OA5643 | | • | | | | • | | | | • | | | | | • | |
| OA5644 | | • | | | | | • | | | • | | | | | • | |
| OA/OW5669 | | • | | • | • | | | | | • | • | • | • | • | • | |
| OA/OW5670 | • | | | | | | • | | | • | • | | | • | • | |
| OA5667 | • | | | • | • | | | | | • | | | | • | | |
| OA5621 | | • | | | | | • | | | • | • | | | | • | |
| OA5622 | | • | | | | | | • | | • | • | | | | • | |
| OA5623 | | • | | | | | | | • | • | | | | | • | |
| OA5611 | | • | | | | | • | | | • | • | | • | • | | • |
| OA5612 | | • | | | | | | • | | • | • | | • | • | | • |
| OA5601 | | | • | | | | • | | | • | • | | • | • | | • |
| OA5602 | | | • | | | | | • | | • | • | | • | • | | • |
| OA5603 | | | • | | | | | | • | • | • | | • | • | | • |

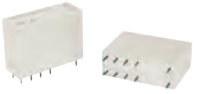
### OA 5642/43/44



### OA / OW 5669



### OA / OW 5670



### OA 5621 / OA 5621S



### OA 5622 / OA 5622S



### OA 5623 / OA 5623S



### OA 5667 / OA 5667S



### OA 5611



### OA 5612



### OA 5601



### OA 5602



### OA 5603



## Safety Relay Modules

- Screw-Cage Clamp Connection
- LED Coil Voltage Indicator
- Reverse DC Polarity LED Protection
- Surge Suppression With DC Coils
- Industry Standard Relays
- DIN Rail Mount, Panel Mount Available



## Applications

- Emergency stop modules
- Safety door controllers
- 2 hand safety devices
- Light curtains
- Elevator and escalators
- Mail sorting
- Robots
- Railway

## Advantages

- Highest quality
- Highest mechanical and electrical life
- Quality control check for each relay
- International approvals
- Large selection
- Custom designs

**COMPETITORS**

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