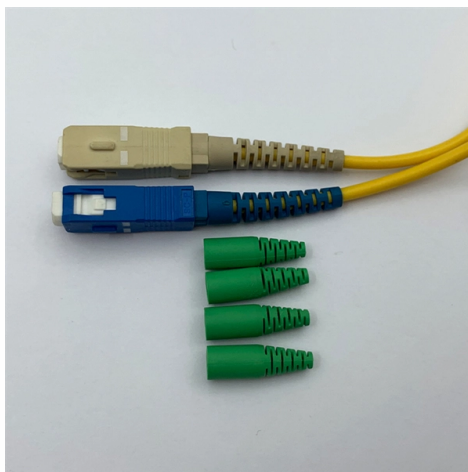


# RIVO MULTITRADE OPTICAL SYSTEMS

## Where are relay protection pressure plates used



### Overview

Electromechanical relays can be classified into several different types as follows:

"Armature"-type relays have a pivoted lever supported on a hinge or knife-edge pivot, which carries a moving contact. These relays may work on either alternating or direct current, but for alternating current, a shading coil on the pole is used to maintain contact force throughout the alternating current cycle.

### Key Takeaways

In electromechanical protective relays, the pressure plate is typically located inside the relay case, directly above or adjacent to the moving contacts or operating mechanism, serving as the interface that transmits mechanical force to trip the relay. Function of the Pressure Plate

The pressure plate in a protective relay is a mechanical component that ensures the movement of the relay's operating parts is properly transmitted to the contacts or trip mechanism. When a fault is detected, the relay coil generates a magnetic force, which moves the armature or disk. The pressure plate presses against the contacts or linkage, causing the relay to actuate and send a trip signal to the circuit breaker .

#### Typical Location

- Inside the relay case: The pressure plate is mounted within the protective relay housing, often near the induction disk, solenoid, or armature depending on the relay type .

- Above the moving contacts: It sits directly over or adjacent to the contacts to ensure reliable mechanical actuation.
- Accessible for maintenance: In electromechanical relays, the plate may be visible when the front cover is removed, but care must be taken due to high voltage potential and electrostatic sensitivity .

#### Safety and Handling

- Do not touch the pressure plate while energized, as it is part of the high-voltage operating mechanism .
- Avoid unnecessary contact to prevent misalignment or damage to the relay's sensitive mechanical components.
- Follow manufacturer manuals for inspection, adjustment, or replacement, as improper handling can affect relay accuracy and trip timing .

#### Summary

The pressure plate is a critical mechanical interface inside electromechanical protective relays, positioned to transmit the movement of the operating mechanism to the contacts or trip linkage. Its correct placement ensures reliable relay operation, fast fault detection, and proper circuit breaker tripping, which are essential for system protection and stability .

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Learn how protective relays detect faults, trip breakers, coordinate protection zones, and

#### Protective relay

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