Relays for HV Protection and control applications

Auxiliary, trip, supervision and time-lag product range overview
Moving together
Product range overview

1. **Auxiliary Relays | 4**
   - Self Reset Relays
   - Latching Relays / Electrical Reset / Electrical & Hand Reset
   - Heavy Duty Relays

2. **Master Trip Relays | 5**
   - Self Reset Relays
   - Electrical Reset / Electrical & Hand Reset
   - Heavy Duty Trip Relays

3. **Supervision Relays | 6**
   - Trip Circuit Supervision Relays
   - Auxiliary Trip Supply Supervision Relays

4. **Time-Lag Relays | 7**

5. **Sockets And Accessories | 7**
1. Auxiliary Relays

Self Reset Relays

General purpose relays, from 2 to 16 contacts with different options available (push to test button, led, flag, ...):

› Variants for extended voltage range, overvoltage coil protection and 16 contacts
› Operating time < 20 ms
› High breaking capacity of the contacts

Latch Relays / Electrical Reset / Electrical & Hand Reset

Relays with two stable positions maintained by a permanent magnet, which prevents intermediate positions and assures reliability:

› Range from 3 to 16 contacts, with extended voltage range and including visual indication of the position of the contacts
› Existing variants for overvoltage coil protection and 16 contacts
› Operating time < 20 ms
› No consumption in permanence, only during the change of position
› High breaking capacity of the contacts

Heavy Duty Relays

General purpose relays incorporating magnetic blow-out to increase the already high breaking capacity of the contacts:

› Use in trip matrix in parallel with an ultrafast relay
› Range from 2 to 8 contacts and variants for overvoltage coil protection
2. Master Trip Relays

Self Reset Relays

Instantaneous relays, from 2 to 16 contacts with different options available (LED, Trip Flag, ...):

› Operating time < 10 ms, can reach < 3ms for some models
› High breaking capacity of the contacts
› High Burden Configuration available according to ESI 48-4 EB2

Electrical Reset / Electrical & Hand Reset

Lock-out relays range from 3 to 16 contacts, including visual indication of the position of the contacts and optionally hand reset button:

› Operating time < 10 ms
› No consumption in permanence, only during the change of position
› High Burden Configuration available according to ESI 48-4 EB2

Heavy Duty Trip Relays

Trip relays incorporating magnetic blow-out to increase the already high breaking capacity of the contacts:

› Range from 2 to 8 contacts
› Operating time can reach <4,5 ms
› Eliminates the need to use two relays in parallel, incorporating high speed and high breaking capacity in the same relay
3. Supervision relays

Trip Circuit Supervision Relays

Continuous surveillance of the trip circuit, in any position of the circuit breaker (open or closed) as well as during the change of position:

› Variants for single pole or three pole circuit breakers
› Front LED indicating state of the circuit and two output contacts to provide alarm
› Independent surveillance increasing safety of the system

Auxiliary Trip Supply Supervision Relays

State of the contacts change when the trip supply is lost providing alarm:

› Operation delayed to avoid undesired alarms due to voltage dips

4. Time-lag relays

Multifunction Time-Lag Relays

› Up to 10 different functions in the same relay
› Wide timing range, from 30 ms up to 99 h
› From 2 to 8 contacts
› Possibility to combine instantaneous contacts and timed contacts in the same relay
› Reduction of references for maintenance, as the same reference can cover multiple applications

› Faceplate detail of a working TDJ8 relay
5. Sockets And Retaining Clips

Sockets

We offer a full range of sockets to enable a secure installation of our relays in any position. All of the are plug-in type to ease maintenance operations.

Security pins can be optionally allocated in each socket to avoid errors during maintenance operations.

The front connection socket can be mounted on a DIN rail or fixed directly to the panel.

Retaining clips

Our front and rear sockets can be equipped with retaining clips. E0 is universal - compatible with all of our references. Metallic retaining clips references are available to fit the size of each relay.