





# **RELAYS** WITH FORCIBLY GUIDED CONTACTS



## **OVERVIEW**

- FORCIBLY GUIDED CONTACTS (WELD-NO-TRANSFER)
- RELAYS COMPLIANT TO EN61810-3, (TYPE A), CERTIFIED BY TÜV RHEINLAND
- 5 MODELS INSTANTANEOUS OR TIMED RELAYS FROM 2 TO 8 CONTACTS
- SUITABLE FOR SAFETY APPLICATIONS
- SOLID AND RUGGED CONSTRUCTION
  FOR INTENSIVE DUTY USE
- VERY HIGH ELECTRICAL LIFE EXPECTANCY, EXCEPTIONAL ENDURANCE
- SELF-CLEANING KNURLED CONTACTS
- SUITABLE FOR ROLLING STOCK APPLICATIONS
- WIDE RANGE OF SOCKETS



## **RELAYS WITH FORCIBLY GUIDED CONTACTS, WELD-NO-TRANSFER**

These relays are equipped with mechanically linked contacts (forcibly guided), an indispensable feature for applications where there is a need to guarantee that make (NO) contacts will never assume the same status as break (NC) contacts. Forcibly guided contacts are also known as weld-no-transfer contacts.

### TESTING ACCORDING TO EN61810-3

- If, when powering up a relay, a NC contact fails to open, the remaining NO contacts must not close, maintaining a contact gap ≥0.5 mm
- When the relay becomes de-energized, if a NO contact fails to open, the remaining NC contact must not close, maintaining a contact gap ≥0.5 mm

Two types of relay are defined:

- Type A: Relay whose contacts are **ALL** mechanically linked (forcibly guided).
- Type B: Relay containing mechanically linked contacts and contacts which are not mechanically linked.

In the case of relays that include changeover contacts, either the make circuit or the break circuit of a changeover contact can be considered to meet the requirements of this standard.



#### COMPLIANCE WITH STANDARDS

- EN 61810-3 Type A Relays with forcibly guided (mechanically linked) contacts (RCG, RDG, RGG, RMGX)
- EN 61810-3 Conformity certified by TÜV RHEINLAND laboratories, further quality and safety certification for users
- EN 61810-1 EN 61810-2, EN 61810-7 Electromechanical elementary relays
- EN 60695-2-10 Fire hazard testing
- EN 50082-2 Electromagnetic compatibility
- EN 60529 Degrees of protection provided by enclosures
- EN 60077 Electric equipment for rolling stock General service conditions and general rules
- EN 50155 Electronic equipment used on rolling stock
- EN 61373 Shock and vibration tests, Category 1, Class B
- EN 45545-2 Requirements for fire behaviour of materials and components Product No. EL10 Requirement R26, V0
- ASTM E162 Standard Test Method for Surface Flammability of Materials
- ASTM E662 Standard Test Method for Specific Optical Density of Smoke