

## UCM200 Security modul control

### ■ **Description:**

UCM200 security module for control of brake contacts, for example, in Gearless machines in systems of protection against unintended car movement (UCM, Unintended Car Movement) in fulfillment of appendix 3 of regulation EN 81-1:1998+A3:2009 (point 9.11).

### **Functional Description.**

Regulation EN81-1:1998+A3 indicates, in point 9.11, that "lifts must have means to stop unintended car movement beyond the floor and with the door floor unblocked and the car door not closed". Moreover, "if the machine brake is used, the autocontrol could include the verification of the correct elevation or falling of the mechanism".

The UCM200 module controls the state of the microswitches which indicate the position, open or closed, of the brake. Its function is to check, that with open doors, the two microswitches are closed, informing of the correct drop of the brakes. In the case of detecting that one of them remains open, the module blocks, preventing the next setting off of the lift. Thus the module foresees unintended car movement.

Via the series entry, the module detects when the car is stopped with open doors. The electric supply of the end of series which reaches the control panel is passed by two K1 & K2 relay contacts, connected in series, in such a way that when the entry of series of the module is activated the contacts of the relays close, and they open on deactivating. The activation of each relay is made by an independent circuit controlled by a microcontroller. Each circuit monitors the state of the opposite relay in such a way that if one of the circuits remains activated in the next manoeuvre the other circuit does not connect, preventing activation of exit (redundant safety).

When the car is stopped with open doors the entries of the brake control are monitored. The module detects if any of the brakes of the machine have remained open and will not close the K1 & K2 contacts, preventing the next setting off of the car.



## ■ Electrical features

- Current supply: from 20 to 30 Vdc.
- Current of control signals of brakes: from 20 to 30 Vdc.
- Current of series entry: from 48 to 230Vac/dc.
- Relay contact of module: 8 A 250 Vac.

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## ■ Diagram of connection

Always connect the module UCM200 to the control panel and to the contacts of the brake as demonstrated in the diagram .

