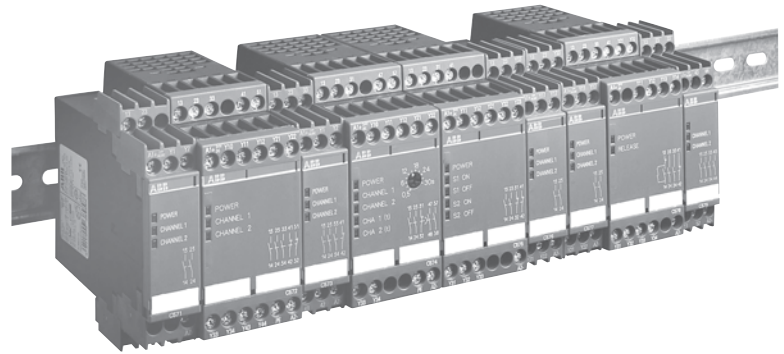


# Electronic Safety relays

**ABB** Electronic relays  
Safety



7

## Description

The C57x series covers 10 safety relays which perform safety functions on machines. Their fields of application extend from emergency-stop circuits through guard door monitoring functions and tread mats to presses and punches. All C57x products are UL Listed, CSA approved and bear the CE Mark.

All safety relays can be used on the basis of their classification into the risk categories to EN 954-1, they are approved by the employers' liability insurance associations and/or the German Technical Inspection Authority (TÜV) and comply with the requirements of EN 60204, Part 1. Redundancy is achieved by series-connection of two N.O. contacts. These N.O. contacts are located in two mutually independent, positive-action, all-or-nothing relays which monitor each other by means of a special-purpose circuit.

Diversity is provided thanks to the combination of N.C. contact and N.O. contact. Cyclic monitoring of the safety circuit in each On/Off cycle ensures maximum reliability.

Thanks to the two-channel control and/or control which is immune to shorts across

contacts, it is also possible to monitor signalling devices such as emergency-stop buttons or limit switches of the guard doors. This ensures the required level of safety even on systems subject to a high level of pollution.

In the event of a fault or error, the safe state of the system is achieved directly after opening the safety contacts. These enable circuits are N.O. contacts which open reliably in the event of fault or error and thus reliably switch off the potentially hazardous drives or machines. Additional signalling contacts, N.C. contacts which close in the event of a fault or error or semiconductor outputs, are available, depending on the type of equipment.

Easy, reliable and fast wiring is achieved by a clear and manageable terminal designation system. This allows wiring errors to be minimized.

In addition to all these safe features, the C57x safety relays correspond to the product design of ABB's range of switchgear and control systems. They fit in perfectly with the overall design of the switch cabinet.