

IDEM Non-Contact Safety Switches Overview



Plastic Housing



Stainless Steel



Stainless Steel for Food

Non-Contact Safety Switches

Non-contact safety switches are interlocking devices that are designed to protect both people and machines. They are preferred in certain applications where no physical contact (under normal conditions) takes place between the switch and actuator, such as:

- Where a high level of protection from tampering is required.
- Where reduced wear from frequent mechanical contact is desired.
- Where poor guard alignment exists. Their operating principle enables greater tolerances, making them ideal for applications where precise guidance of guards is difficult.
- Where there is exposure to contamination or where there are strict hygiene standards (for example, in the food industry). The devices are easy to clean, making them ideal for these environments.
- Where a long service life is required. The switches are mechanically non-wearing, insensitive to shock and vibration, and resistant to moisture and extreme temperatures.

Non-Contact Magnetic, Coded Magnetic, and RFID Styles

All three switch styles provide a wide (>10mm) sensing distance and a high tolerance to misalignment after sensing. Plastic and stainless steel housings are available for all models. Up to ten magnetic or four coded / RFID switches can be connected in series to one of our Dold safety relays.

Non-Contact Magnetic Safety Switches

These are simple magnetic reed switches and are designed to conform to IEC 60947-5-3 and be used as directed by ISO14119, EN ISO12100 and EN 60204-1. When the magnet actuator approaches the switch, the magnetic field pulls the reed contacts to a closed position.

Non-Contact Coded Magnetic Safety Switches

Coded non-contact safety switches use coded magnets to close the circuits, thereby offering even more protection than magnetic safety switches. The safety switch and actuator work together in such a way that the enable condition from the safety device is only triggered if the actuating element is within the switch's response range and the code on the actuator matches that of the switch. Codes are not unique and can be used with other models of the same series.

All coded non-contact safety switches are designed to conform to IEC 60947-5-3 and be used as directed by ISO14119, EN ISO12100 and EN 60204-1.

When used in combination with a dual channel safety relay, non-contact coded switches can be used to provide protection up to Category 4 and PLe to ISO13849-1.

Non-Contact RFID Coded Safety Switches

RFID Coded non-contact safety switches use RFID communication between switch and actuator to provide the most tamper proof protection using both master and unique coded actuators. All master coded switch models will work the other master coded actuators including the replacement models available. All unique coded switches are unique per item shipped with no two alike.

When used in combination with a Dual Channel Safety Relay, RFID Coded non-contact safety switches can be used to provide protection up to Category 4 and PLe to ISO13849-1.



Safety Products



Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.

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