Mechatronic safety devices

NG

Series connection
Multiple sensors can be connected in series.
With up to 32 sensors connected in series, PL e safety level laid down in EN ISO 13849-1 and SIL 3 acc. to EN 62061 is ensured.
The fact that the PL e and SIL 3 can be maintained even with 32 sensors connected in series demonstrates the extremely secure structure of each sensor.

NS

LEDs for immediate diagnosis
As the LEDs have been designed for fast and immediate diagnostics, the status of each input and output is indicated by one specific LED.
This allows for operational device parameters to be rapidly identified on an individual basis, without needing to decode complex flashing sequences.

PL e + SIL 3
Safety level up to PL e and SIL 3 with a single device.
Simple wiring, fast installation times.

Laser engraving
All devices are marked using a dedicated indelible laser system. These engravings are therefore suitable for extreme environments too. Thanks to this system that does not use labels, the loss of plate data is prevented and a greater resistance of the marking is achieved over time.

Insensitivity to dirt
The sensors are completely sealed and retain their safety characteristics even in the presence of dirt or deposits (not ferromagnetic material). This characteristic, combined with the design without recesses, makes them particularly suitable for use in the agricultural and food industries.

ST

HX

General Catalogue Detection

General Catalogue HMI

General Catalogue Safety

General Catalogue Lift

Website
www.pizzato.com

PIZZATO
PASSION FOR QUALITY

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NS series safety switches with solenoid and RFID technology

- Reinforced technopolymer housing, self-extinguishing, fully sealed
- Actuation without contact, using RFID technology for a long endurance over time
- Actuators with two available coding levels (low and high) acc. to EN ISO 14119
- Holding force of the actuator up to 2100 N
- SIL 3 and PL e with a single device
- High protection degree up to IP67 and IP69K
- Interlock, no contact, coded, with guard interlock, type 4 acc. to EN ISO 14119
- 3 different actuation modes for safety outputs
- 6 state signalling LEDs
- Automated actuator centring
- Upper auxiliary release and lower connector with variable orientation and non-detachable
- Version with extended housing with room for mounting up to 4 integrated control devices
- Dust resistance
- Escape release button
- Output with M12 connector or integrated cable
- Compatible with Pizzato AN S series safety handles, with optional LOCK OUT device

Description
NS series switches are suitable for the management of guards on machines where the hazardous conditions persist even after the machine has been switched off, due to inertia of moving hazardous parts, or specific material or machinery temperature or pressure conditions within the protected area.
The 3 different hardware activation modes allow the guard lock function to be used for mafcinefs with inertia (mode 1), for machines with no inertia (mode 2), and for machines with inertia and safety outputs used either for the door closed and locked state, or door closed only state (mode 3).
Their light and versatile design means they are particularly suited to light aluminium, polycarbonate or light metal grating guards, typically used in woodworking and packaging machines, or assembly islands.

Actuator with flexible bolt for inaccurately closing doors

Through hole to prevent dust and dirt deposits

Wide centring inlet for easy alignment between device and actuator

6 LEDs for immediate diagnosis

IP69K IP67

Suitable for applications subjected to intense washing

Auxiliary releases and connections with variable orientation

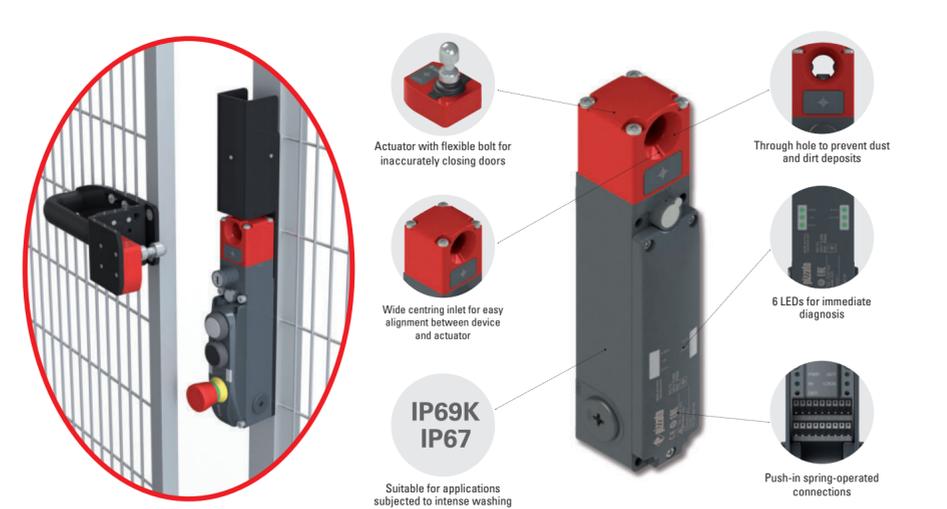## NG series safety switches with solenoid and RFID technology

- Metal housing, three M20 conduit entries
- Actuation without contact, using RFID technology for a long endurance over time
- Actuators with two available coding levels (low and high) acc. to EN ISO 14119
- Increased actuator holding force of up to 9750 N
- SIL 3 and PL e with a single device
- High protection degree up to IP67 and IP69K
- Interlock, no contact, coded, with guard interlock, type 4 acc. to EN ISO 14119
- 3 different actuation modes for safety outputs
- 6 state signalling LEDs
- Automated actuator centring
- Heads and release devices with variable orientation, non-detachable
- Up to 3 integrated control devices can fit into the device housing
- Dust resistance
- Escape release button
- Compatible with Pizzato AP and AN G series safety handles, with optional LOCK OUT device

Description
NG series switches, like those of the NS series, are suitable for the management of guards on machines where the hazardous conditions persist even after the machine has been switched off; or, thanks to the 2 different hardware operating modes, they can also be used in situations where control of the locking of machine guards with or without inertia is required.
The robust, powder-coated, metal housing, combined with a high actuator holding force (up to 9,750 N), make the NG series switches suitable for applications on heavy and large metal guards, typically found in heavy industry (robotic metalworking presses and islands).
With the option to integrate illuminable pushbuttons, selectors, and an emergency stop button within the same housing, these switches offer a complete solution for automated plants, including those of large scopes.

Actuator with flexible bolt for inaccurately closing doors

Through hole to prevent dust and dirt deposits

Wide centring inlet for easy alignment between device and actuator

6 LEDs for immediate diagnosis

IP69K IP67

Suitable for applications subjected to intense washing

Push-in spring-operated connections

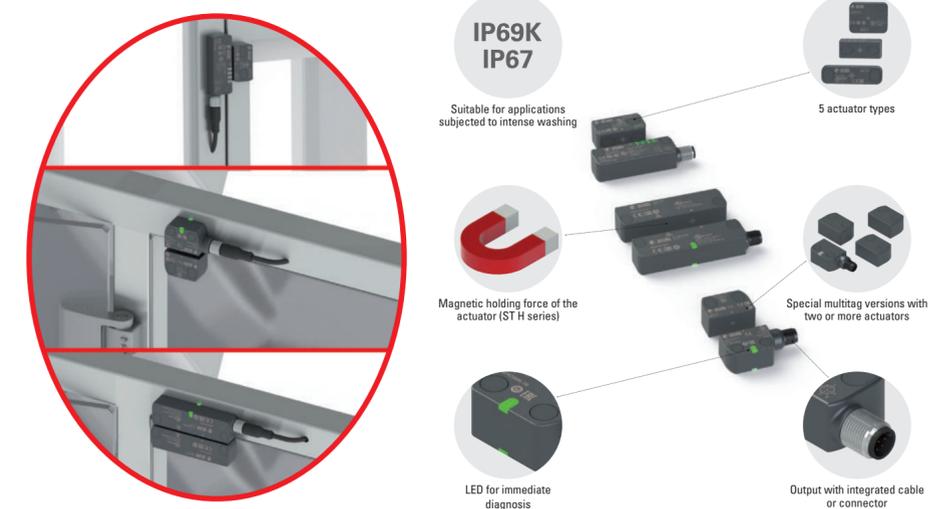## ST series safety sensors with RFID technology

- Housing made of glass fibre reinforced technopolymer, self-extinguishing
- Actuation without contact, using RFID technology for a long endurance over time
- Two coding levels options (low and high) acc. to EN ISO 14119
- SIL 3 and PL e with a single device
- High protection degree up to IP67 and IP69K
- Interlock, no contact, coded, type 4 acc. to EN ISO 14119
- Actuation possible from many directions
- Choice of 5 different actuator types
- Multitag versions with two or more actuators
- Versions with extended temperature range from -35 °C to +85 °C
- Magnetic holding force of the actuator (ST H series)
- Sensor can be programmed during installation phase
- Wide actuation range, ideal for less precise guards
- Protection caps for screw holes for maximum degree of cleanliness and anti-tamper protection
- Output with M12 connector or integrated cable
- Compatible with Pizzato AN T series safety handles

Description
The ST series sensors, with their extremely compact dimensions and contactless RFID technology, guarantee a long-lasting solution in frequently opened and closed guards, including in hostile environmental conditions.
The option to choose between 5 different actuator types, with different fixing and actuating directions, makes these sensors extremely versatile; this means that they can be installed to all types of machines and guards, both large and small.
Once installation is complete, the plugs supplied make the casing completely smooth and sealed, preventing accumulation of dirt and dust; the IP67 and IP69K protection degree allows washing with pressurized water, making the ST sensors suitable for and valued in the food and pharmaceutical sector.

IP69K IP67

Suitable for applications subjected to intense washing

5 actuator types

Magnetic holding force of the actuator (ST H series)

Special multitag versions with two or more actuators

LED for immediate diagnosis

Output with integrated cable or connector

HX BEE1 series safety hinge switches with electronic contact block

- Polished stainless steel AISI 316L housing: safety and style in one product
- SIL 3 and PL e with a single device
- High protection degree up to IP67 and IP69K
- 3 different cable output directions
- Output with M12 connector or integrated cable
- Output with invisible rear cable for most pleasing guard aesthetics
- 4 state signalling LEDs for immediate diagnosis
- Clean design: hidden fixing screws
- Designed for heavy guards
- Fast and safe switching point adjustment
- Availability of fixing plates and additional hinges without contact block

Description
HX series hinge switches incorporate a robust metal hinge for heavy guards with a safety switch that is fully inserted into the body of the product: the safety device becomes practically invisible to the inexperienced eye. This, asides from being an aesthetic advantage, guarantees greater safety as a switch which is difficult to identify is consequently even more difficult to tamper with.
As the HX series safety hinge switches are in AISI 316L stainless steel, these devices can be used in environments where particular attention must be paid to cleanliness and hygiene, and also corrosion resistance: typically in the food and pharmaceutical sector, but also in the chemical and marine sectors.

3 different cable output directions

4 LEDs for immediate diagnosis

Availability of additional hinges without contact block

Internal electronic contact block

IP69K IP67

Suitable for applications subjected to intense washing