

MACHINE SAFETY & AUTOMATION SOLUTIONS



OUR GOAL MOTIVATION: INNOVATION

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WHO WE ARE



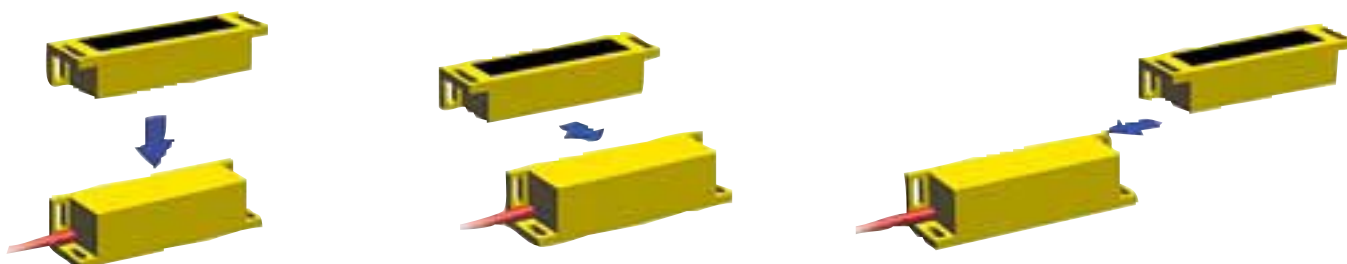
Specialized in the production of machine safety components, automation, and human machine interface, COMITRONIC-BTI has been manufacturing a wide range of products through the **ACOTOM® process since 1993**.

This **unique process** is based on a electronic decoding system that detects and receives two independent magnetic fields, which makes the product tamper-proof and does not include a reed contact or transponder system, meaning a sustainable life cycle.

The sensing distance of 7 to 12 mm, depending on the model, offers van easy installation and allows (you) to work through a 6mm-thick stainless steel wall. The sensor can be embedded in the structure of the machine (low 2mm hysteresis). The LED traces the exact state of decoding regardless of the number of sensors in the series.



Typical sensing directions :



We are present in different sectors of activity such as :

- Food industry (dairy, ready-made meals, meat cuts...)
- Packaging (bottling, filling, bagging...)
- Cosmetics
- Pharmaceuticals
- Running vehicles (armored trucks, refrigerated trucks, garbage trucks)

STAND ALONE SENSORS

Stand alone contactless sensors with electromechanical technology

SSR Range



- Redundant safety contacts: 2A / 250V
- Dry contacts free of potential (relay outputs)
- Safety level without external controller: PLc, category 1 according to ISO13849-1
- **Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1**
- Material: PA6 or SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available (depending on version)
- IP68 (PA6) or IP69K (Stainless steel)
- Electrical connection: 3, 6, 12 m cable or 50 cm cable with M12/8PIN connector depending on version (MKT)
- Integrated LED diagnostics and/or NC auxiliary line

*New: 5SSR24 P/S:

- 3x2A/250V contacts
- 2NO + 1NC : parallel NC contact (P version) or serial contact (S version)
- Safety level without external controller: PLc, category 1 according to ISO13849-1
- Compatible with a T-Splitter for a fast and quick automatic series connection



IP68
IP69K



+60°C
-25°C



Compatible
with PLC

AMX Range



- Redundant safety contacts: 2A / 48V
- Dry contacts free of potential (relay outputs)
- Integrated auto-control
- 2 million mechanical actions 2A at full load guaranteed
- Safety level without external controller: PLc, category 3 according to ISO13849-1
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: PA6 or SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available depending on version
- IP68 (PA6) or IP69K (Stainless Steel)
- Electrical connection: 3, 6, 12 m cable or 50 cm cable with M12/8PIN connector depending on version (MKT)
- Integrated LED diagnostics and/or NC auxiliary line (on versions 3 and 5)



Intertek
5008891



IP68
IP69K



+60°C
-25°C



Compatible
with PLC

NON STAND ALONE SENSORS

Ideal solutions for serie installation (up to 30 sensors with AWAX controller)

ANATOM78S/98S



- Safety contacts/diagnostics: 2 x NO 0.8A/24V max redundant / 1 x PNP contact NC 250mA (78S) or 1 x PNP contact NO 250mA (98S)
- Static contacts - 100% electronic contacts
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: PA6 or SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available depending on version
- IP68 (PA6) or IP69K (Stainless Steel)
- Electrical connection: 3, 6, 12 m cable or 50 cm cable with M12/8PIN connector depending on version (MKT)



IP68
IP69K



+60°C
-25°C



Compatible
with PLC

OPTOPUSDEC: miniature solution



- Safety contacts/diagnostics: 2 x NO 0.4A max / 24V redundant / 1 x PNP contact NF 250mA
- Static contacts - 100% electronic contacts
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: PA6 or SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available depending on version
- IP68
- Electrical connection: 3, 6, 12 m cable or 50 cm cable with M12/8PIN connector depending on version (MKT)



IP68



+60°C
-25°C



Compatible
with PLC

CYLINDRICAL SENSORS

7SSR24V (M30)



- Safety contacts/diagnostics: 2 redundant NO 1A/48V / 1 x PNP contact NC 1A
- Safety level without external controller: PLc, category 1 according to ISO13849-1
- Safety level with external controller (AWAX model) : up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available depending on version
- IP69K front, IP67 back
- Electrical connection: 3, 6 or 12 m cable
- Diameter: M30



IP69K



**+60°C
-25°C**



**Compatible
with PLC**

ANATOM M18



- Safety contacts/diagnostics: 2 redundant NO 0.8A max / 24V + 1 x PNP contact NC 250mA
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: Copper Nickel
- IP67
- Electrical connection: M12 metal base
- Diameter: M18



IP67



**+60°C
-25°C**



**Compatible
with PLC**

MASSIMOTTO RANGE - RFID SENSORS

MASSIMOTTO



Safety sensor for single and double doors for simple and efficient serie installation. This solution exists in a stand-alone version (X5) with choice of manual (AR) or automatic (SR) reset and as a non stand alone version (ANA).

- Safety contacts/diagnostics:
 - . ANA : 2 x NO 0.8A max / 24V redundant / 1 x NF (78S) or 1 x NO (98S) 250mA
 - . X5 : 2 x NO 2A / 48V redundant / 1 x PNP 250mA auxiliary
- Safety level without external controller: PLc, category 3 according to ISO13849-1
- Safety level with external controller (AWAX model) : up to PLe, category 4 according to ISO13849-1
- Material: Polycarbonate
- IP67
- Electrical connection: 1 or 2 M12/8PIN connector for a quick serie connection
- With single or dual transmitters



IP67



**+60°C
-25°C**



**Compatible
with PLC**

XORF-SA-MKT



Safety sensor with 125 kHz RFID coding

- Solution adapted to vehicles (E2 UTAC certified)
- RFID sensor with 16 million codes available
- Code programmable by self-learning (no software or PC) => tamper-proof system
- Detection distance : up to 20mm
- Safety contacts/diagnostics: 2 x NO 50mA / 30V redundant and 1 x PNP 50mA
- Safety level with safety relay : up to PLe, category 4 SIL3 according to ISO13849-1
- Material: PA6
- IP68
- Electrical connection: 50cm PUR cable with M12 connector



IP68



**+50°C
-30°C**



**Compatible
with PLC**

HYGIENE DESIGN SENSORS

HYGTECH-AR-MKT



Hygtech compact safety sensor designed for the food industry and other harsh environments. No cavity, no holes => avoid any risk of bacteria development. Designed with slopes to avoid any water stagnation

- Safety contacts/diagnostics: 2 x NO / 1 x NC
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching
- IP69K
- Electrical connection: connection by M12/8PIN connector overmolded to a 50 cm or 220 cm PUR cable (MKT)
- Rear mounting (AR)
- Quick serie installation thanks to T-Splitter
- LED diagnostics 3 colors



IP69K



**+80°C
-25°C**



**Compatible
with PLC**

M18-HY-MKT (M18)



- Safety contacts/diagnostics: 2 x NO / 1 x NC
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching
- IP69K
- Electrical connection: connection by M12/8PIN connector overmolded to a 50 cm or 220 cm PUR cord (MKT)
- Diameter: M18



IP69K



**+80°C
-25°C**

7SSR-HY-MKT (M30)



- Safety contacts/diagnostics: 2 x NO 1A/48V / 1 x NC
- Safety level without external controller: PLc, category 1 according to ISO13849-1
- Safety level with external controller (AWAX model) : up to PLe, category 4 according to ISO13849-1
- Material: SS 316L with polish mirror finishing, laser engraving and traceability by mechanical punching
- IP69K
- Electrical connection: connection by M12/8PIN connector overmolded to a 50 cm or 220 cm PUR cord (MKT)
- LED indicating the decoding status and the position of the door
- Diameter: M30



IP69K



**+70°C
-25°C**



**Compatible
with PLC**

HIGH AND LOW TEMPERATURE SENSORS

ANATOM78S-N-MKTS



- Safety contacts/diagnostics: 2 redundant NO 0.8A max / 24V + 1 x PNP contact NC 250mA
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching
- IP69K
- Electrical connection: 50 or 220 cm ultra flexible silicone cable with M12/8PIN (MKTS) connector



IP69K



**+125°C
-40°C**

TRITHON-N-MKTS/P-MKTS



TRITHON-N-MKTS

- Safety contacts/diagnostics: 2 redundant NO 1A / 24V + 1 x PNP 1A NC
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching
- IP69K
- Electrical connection: 50 or 220 cm ultra-flexible silicone cable with M12/8PIN (MKTS) connector
- Fixation : central (N) or lateral (P)



IP69K



**+110°C
-30°C**



TRITHON-P-MKTS

SENSORS WITH INTEGRATED MAGNETIC HOLDING FORCE

EPINUS2K-NT-MKTS



Sensor with integrated magnetic holding force and resistant to high/low temperatures.

- Integrated holding force: 2kg
- Safety contacts/diagnostics: 2 redundant NO 250mA / 24V + 1 x PNP NC 250mA
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available depending on version
- IP69K
- Electrical connection: 50 or 220 cm ultra-flexible silicone cable with M12/8PIN (MKTS) connector
- 100% electronic contacts
- Shock resistance: 30g



2 Kgs



**+125°C
-40°C**

EPINUS4K



- Integrated magnetic holding force: 4kg
- Safety contacts/diagnostics: 2 redundant NO 0,8A / 24V + 1 x PNP NC 250mA
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available depending on version
- IP68
- Electrical connection: 3, 6, 12 m cable or 50 cm PUR cord M12/8PIN (MKT)
- 100% electronic contacts
- Shock resistance: 30g



4 Kgs



**+70°C
-25°C**



**Compatible
with PLC**

BOSTER



Standalone sensor with magnetic holding force and relay outputs

- Integrated holding force: 4kg
- Safety contacts/diagnostics: 2 redundant NO 2A / 50V + 1 x PNP NC 250mA
- Integrated auto-control
- Safety level without external controller: PLc, category 3 according to ISO13849-1
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: SS316L with polish mirror finishing, laser engraving and traceability by mechanical punching available depending on version
- IP67
- Electrical connection: 3, 6 or 12 m cable
- Shock resistance: 10g



4 Kgs



**+60°C
-25°C**



**Compatible
with PLC**

INTERLOCKING SENSORS

SUPERMAGNET



Compatible
with PLC

Electromagnetic controlled locking solutions

- Electro-magnetic holding force: from 30 to 90kg
- 2 locking modes: locked with power ON(R) / with power OFF (E)
- Safety contacts/diagnostics: 2 redundant NO 250mA / 40V + 1 x PNP NC 125mA
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: polycarbonate (PL) or SS316L with mirror polish finished, laser engraving and mechanical punching traceability (OX)
- Up to IP69K
- Operating temperatures: -25°C to +50°C
- Electrical connection: 50cm PUR cable with M12/8 pins connector

ANAGUARD



Compatible
with PLC

Coded safety interlocking device, small size, ideal for small guard doors

- Holding force: up to 100kg
- 2 locking modes: locked with power on (R) / with power off (E)
- Length of coded bolt /detection distance : 9 mm/3 mm
- Safety contacts/diagnostics: 2 x NO 400mA / 24 Vdc/ac + 1 x NC / 400 mA / 24 Vdc/ ac
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: PA6 +30% reinforced fiberglass
- Up to IP65
- Operating temperatures: -5°C to +40°C
- Electrical connection: M12/8PIN connector or cable (W) depending on the version

VIGILGUARD



Compatible
with PLC

Coded safety interlocking device for heavy industry

- Holding force: up to 200kg
- 2 mounting positions: pulling door (T) / pushing door (P)
- Bolt stroke: 14mm
- Safety contacts: 2 x NO 2A / 50V
- Auxiliary contacts: 2 x PNP / 500 mA
- SMART CONSUMPTION for serie installation with minimal power consumption
- Safety level with external controller (AWAX model): up to PLe, category 4 according to ISO13849-1
- Material: PA6 +30% reinforced fiberglass and stainless steel bolt
- IP65
- Operating temperatures: -15°C to +45°C
- Electrical connection: 50 cm PUR cable with M23 connector or cable
- Optional Emergency Escape Handle (AT)

SAFETY RELAY

AWAX26XXL



Safety relay suitable for different applications for control of Acotom process sensors/ mechanical switches/emergency stops / interlocking devices

- Output contacts:
 - . AWAX26XXL (ETL): 3 NO redundant 8A / 250V + 1 NC 8A / 250V in series
 - . AWAX26XXL-T6: 3 NO redundant 6A / 250V + 1 NC 6A / 250V in series
 - . AWAX26XXLP: 3 NO redundant 8A / 250V + 1 NC 8A / 250V parallel
 - . AWAX26XXLP-T6: 3 NO redundant 6A / 250V + 1 NC 6A / 250V parallel
- Safety level: PLe, category 4 according to ISO13849-1
- Two-channel solution
- DLC system => allows the detection of short circuits in 2 micro-seconds
- Reset: configurable by dip-switch (SR=Automatic, N=manual)
- Indication: 3 LEDs for diagnostics



DETECTION OF
CURRENT CIRCUIT



+60°C
-20°C

* Other version available: 120/240 V

CO13XXL



Single or dual channel safety relay : allows the management and control of safety sensors as well as emergency stops

- Safety contacts/diagnostics: 2 x NO redundant 8A / 250V + 1 x NC 8A / 250V redundant parallel + 1 x NO static 400 mA
- Safety level: up to PLd, category 3 according to ISO13849-1
- Reset: configurable by dip-switch (SR=Automatic, N=manual)
- Indication: 3 LEDs for diagnostics



+60°C
-20°C

* Other version available: 120/240 V

SAFETY RELAY

COM3C



Two hands control solution

- Safety contacts/diagnostics: 2 x NO redundant 8A / 250V + 1 x NC 8A / 250V parallel redundant
- Safety level: PLe according to ISO13849-1
- Safety category: IIIC
- Reset: automatic with simultaneity control at 300ms
- Indication: 3 LEDs for diagnostics



+40°C
-20°C

* compatible with our KOB101T and FZ-BITECH

SPEEDTRONIC



Stand still safety relay to be connected with an interlocking system. Allows detection of complete shutdown on motor windings

- Safety contacts: 3 x NO redundant 8A / 250V
- Diagnostics: 1 x NF parallel redundant 8A / 250V
- Security level: up to PLe, category 4 according to ISO13849-1
- Adjustable time delay with wheeling codes between 2 and 7 seconds
- Sensitivity adjustable between 20 and 700 mV
- Compatible with a three-phase motor and variable frequency drive
- Reset: automatic
- Star, triangle, and star triangle starting possibilities



**CONTROL
SPEEDS
AND SPEED 0**



+60°C
-20°C

* can be combined with our interlocking systems (SM, ANAGUARD, and VIGILGUARD)

AUTOMATION PRODUCTS

HUMAN/MACHINE INTERFACE



ROBUST AND
RESISTANT IK08



DIRT CONTROL



CONTROL OF
FOREIGN BODIES

Touch-Sensitive Buttons: KAPIX



Three-color light touch control buttons with "force 0" capacitive technology

- Diameter available : 22/30 mm
- Electrical contact: 1 NO, 2 NO, 1 NO + 1 NC, 400mA / 24V (up to two electrical contacts)
- Compatible with PLC (L version) for a great flexibility of use & LEDS management
- Activation distance: when touched ("force 0" = reduction of RSI because no effort)
- IP69K on the surface (splash water immunity)
- Function: Momentary, toggle, or time delayed
- Indication: Two-color / three-color LED mounted on two independent circuits
- Operating temperatures: -20°C to +55°C
- Electrical connection: 3m cable or 50cm cord with M12 / 8PIN connector or 1.5mm² screwless terminal block or 0.5mm² screw terminal block
- Customization by laser marking ("ON", "OFF", "RESET") and button body colors
- Housing : TR90UV



CAPACITIVE
TECHNOLOGY



COMPATIBLE WITH
GLOVES EN388

Two-Hands Control Buttons: KOB101T



Two-hands touch control button with dual technologies capacitive (touch detection) and optical (triple infrared beam detection)

- Safety contacts: 1 x PNP NO / 50mA OSSD and 1 x PNP NC / 50mA OSSD
- Safety level with COM3C controller: PLe
- Safety category with COM3C IIIC
- Activation distance: when touched ("force 0" = reduction of the RSI because no effort)
- Diagnostics: fraud, simultaneity, short-circuiting of contacts with multi-function illuminated ring
- Reset: automatic with two buttons correctly activated
- IP67
- Operating temperatures: -25°C to +60°C
- Electrical connection: Screw-less terminal 1.5mm²
- Ergonomic stainless steel support (BX1 or BX2)

Coming soon:
FZ-50-BITECH (IP69K)



TECHNOLOGIE
CAPACITIVE



TECHNOLOGY
OPTICAL

* Compatible with COM3C

AUTOMATION PRODUCTS

HUMAN/MACHINE INTERFACE



ROBUST AND
RESISTANT IK08



DIRT CONTROL



CONTROL OF
FOREIGN BODIES

Optical control buttons: KOB308 /508T

Contactless Control Button with Optical Technology (308) or Bi-Technology (Optical and Capacitive) (508T)



KOB308



KOB508T

- Diameter 30mm (308) / 50mm for button and 100mm with ring (508T):
 - . KOB308 L: activation distance 17mm
 - . KOB308 S: activation distance 3mm
 - . KOB 508T: activation distance between 5 and 20mm
- Standard action: momentary, toggle or time delayed
- Possible actions on request or with KOB-SOFT software: toggle or timed delayed
- Red LED ring light indication:
 - . KOB508T: LED indication when optical beam detected
 - . KOB308: LED indication when optical beam detected or LED indication thanks to a PLC
- Electrical contacts:
 - . KOB508T: 2NO (PNP) / 2NC (PNP) / 1NO +1NC (PNP)
 - . KOB308: 1NO (PNP or NPN) / 1NC (PNP or NPN)
- IP67
- Electrical connection: Screw-less terminal 1.5mm²

Optical Button for Clean Room: KOB608



Non-contact button with optical technology operating through a lexan or glass wall

- Diameter: 50mm
- Electrical contact: 1NO 30V / 400mA static contact free of potential
- Action: momentary
- Red, green, amber tri-colored LED managed by 3 independent inputs
- Detection distance: 40mm (behind Plexiglas) / 10mm (in direct action)
- IP67
- Electrical connection: 20 cm cable



COMPATIBLE WITH
GLOVES EN388

AUTOMATION PRODUCTS

HUMAN/MACHINE INTERFACE

RFID access control solution: XS308



Compact reader and recorder (diameter 30) of RFID tag 125 Khz for PLC

- Communication network:
 - . RS485 MODBUS (RTU): hexadecimal programming up to 5 bytes
 - . RS232 (ASCII): Writing up to 5 characters
- RS485 contact: 1 x PNP strobe
- Life cycle: 20 years
- Detection encoding: infinite
- Solution for networking, up to 32 readers
- IP69K surface/ IP67 back
- Operating temperatures: -20°C to +60°C
- Electrical connection: screwless terminal
- Case: TR90UV



+60°C
-20°C



**ROBUST AND
RESISTANT IK08**

RFID access control solution : XR530



Compact, stand alone access control solution with unlocking control via RFID tag

- 125kHz RFID technology with 16 million possible codes by self-learning system
- Contact for door release: 1.8A (PNP)
- Detection distance up to 25mm
- 2 alarms outputs:
 - . Alarm 1: Door open more than 120s (P version) or more than 60s (P1 version)
 - . Alarm 2: Forced door, alarm for 60s (version P) or 30s (version P1)
- LED diagnostics
- Management of up to 9 groups (version E)
- Electrical connection: 3m cable
- Compact, ergonomic, can be embedded in the structure, frame of the machine
- Housing PA6



+70°C
-25°C

OUR ADDRESSES

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OUR GOAL MOTIVATION: INNOVATION