

EC DECLARATION OF CONFORMITY

This document is the conformity declaration concerning safety switches and relays, conform to the Machine Directive 2006/42/CE and the Directive 2004/108/CE.

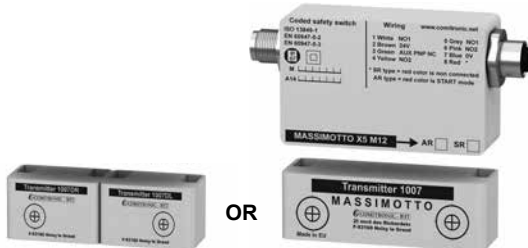
SAFETY SWITCHES

We hereby certify that the hereafter described safety components both in its basic design and construction conforms to the applicable European Directives.

Name of products :

Range	Safety Standards	Conformity
MASSIMOTTO X5 AR	ISO 13849-1 EN 62061	CE
MASSIMOTTO X5 SR	ISO 13849-1 EN 62061	CE
MASSIMOTTO X5.2 AR	ISO 13849-1 EN 62061	CE
MASSIMOTTO X5.2 SR	ISO 13849-1 EN 62061	CE

PL=d acc. EN ISO 13849-1
 SIL 2 acc. EN 62061
 Classification=PDF-S
 acc. EN 60947-5-3
 Input Power Supply = 24VDC
 Checking period=1/year
 PFH=1,42 E-08
 PFD=1,24 E-03
 PROOF TEST=20 a
 dop=365 j
 hop=24 h
 F=1/h
 B10d=2.000.000
 Supply : 24 VDC PELV/SELV
 Coding level : low acc. ISO 14119
 Average level on demand



Description :

Coded safety switch with process Acotom₃® for detects the position of the doors. It can used without safety relay.

Person authorized for the compilation of the technical documentation :

Christophe PAYS
 34 Allée du Closeau
 93160 Noisy le Grand

U.S. market : All products are manufactured with UL components and 94VO housing

Place and date of issue : Noisy, december 18, 2014

Authorised signature
 Michel Conte
 President



Technical data sheet of MASSIMOTTO X5.2 SR

Thank you for your confidence in BTI products. This product has been designed and manufactured according to the highest quality standards.

1. Application

The MASSIMOTTO X5.2 M12 SR is a coded magnetic switch which detects the opening of doors and cranks of dangerous machines. It uses our ACOTOM[®] process, « interactive self-controlled » system, which locks the safety lines in case of failure. The safety is ensured without any external device. The MASSIMOTTO X5.2 M12 SR is composed of one receiver and one transmitter in polycarbonate. It provides two NO contact lines free of potential, independent and isolated from the decoding system for a perfect safety of using, and a static NC contact compatible with PLC, indicating the exact state of the switch. A special transmitter (1007D) allows to use the single sensor on a door with double hinge door.

2. Fixing and wiring

The transmitter and receiver are easily fixed with 4mm diam. screws (length 20mm). It is compatible with aluminium profiles present in the market. The anti-tamper screws and tool are optional. To connect easily in series, the receiver is equipped with a male 8 points IP67 M12 connector, a female 8 points IP 67 M12 connector and a screw cover.

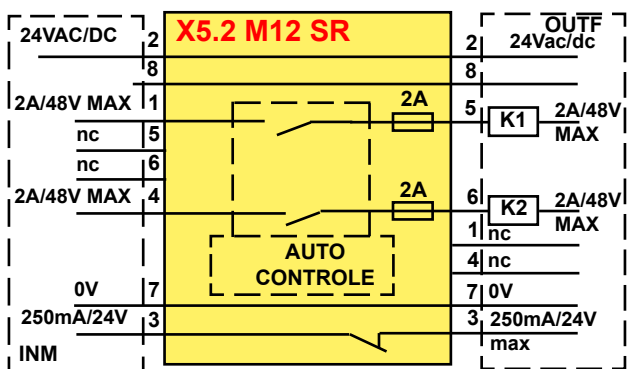
3. Functioning

The receiver is supplied with 24Vac or 24Vdc. Targets are printed on the sensitive faces. When they are facing each other, if the code is recognised, the NO lines close and the auxiliary line opens. The yellow LED lights up. If the code is not recognised, if there is a too big misalignment or if the switch detects a failure of one of its safety contacts, the LED is lit off and the lines are not ordered. This switch resets automatically. In order to avoid violent chocks, to leave a distance of at least 1mm between the transmitter and the receiver is advised. This product should not be used to block the machine doors mechanically. The detection distance between both elements is 8mm and it can also be done through a 6mm wide wall in polycarbonate or stainless steel.

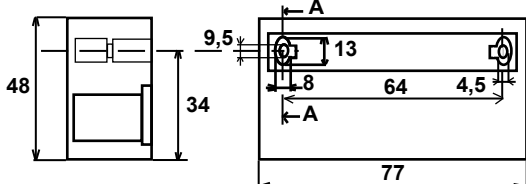
4. Cable references

- FKT M12 2, 5 or 10m : female cable switch/electric board
- MKT M12 2, 5 or 10m : male cable electric board/switch
- FMKT M12 2, 5 or 10m : cable for connection in series

5. Electrical diagram



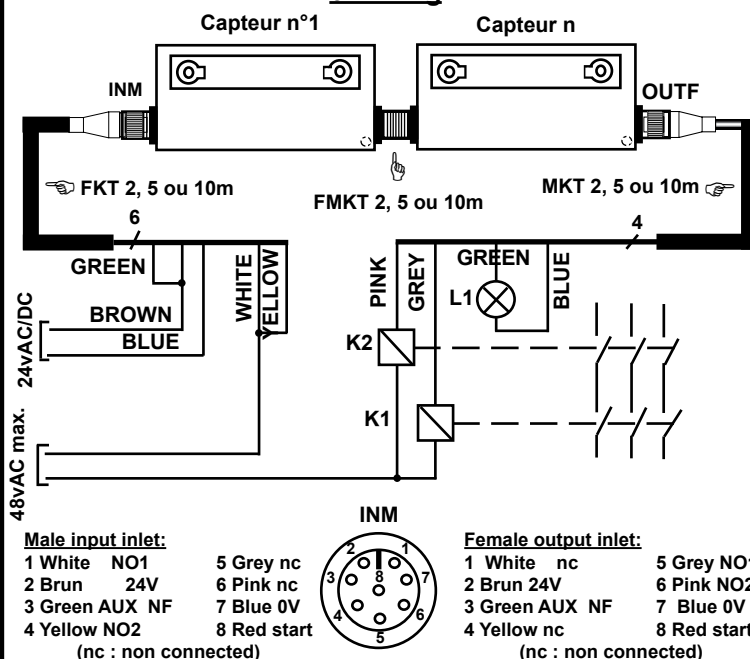
Receiver



5. Technical characteristics

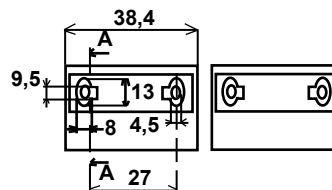
Supply voltage	24 VAC/DC -15% / +10% 50/60Hz (PELV/SELV to IEC 60204-1)
Rated operating current	40 mA (DC) / 50 mA (AC)
Protection class	II
Degree of pollution	3
Ambient temperature	-25 °C / +60 °C
Protection class	IP 67 (EN60529)
Resistance to vibration	10-55 Hz, 1.5 mm double amplitude
Resistance to shock	10 g
Switching frequency	< 2 Hz
Response time	< 400 ms (Ton)
Duration of risk	< 15 ms (Toff)
Safety line	AC1-AC15-DC13 : 50 VAC/DC / 2 A pilot duty & general use
Auxiliary output	NF : 24 V / 250 mA general use
Diagnostic output	Short-circuit proof (internal fuse)
System protection	Short-circuit protection (internal fuse)
Detection distance emitter/receiver (IEC 60947-5-3)	Sn=8 mm (rated switching distance) Sao=7 mm (assured switching-on distance) Sar=12 mm (assured switching-off distance) Hysteresis 3 mm Repeat accuracy < 5%

6. Wiring



7. Dimensions (mm)

Transmitter 1007D Double hinge door version



Transmitter 1007 Simple door version

