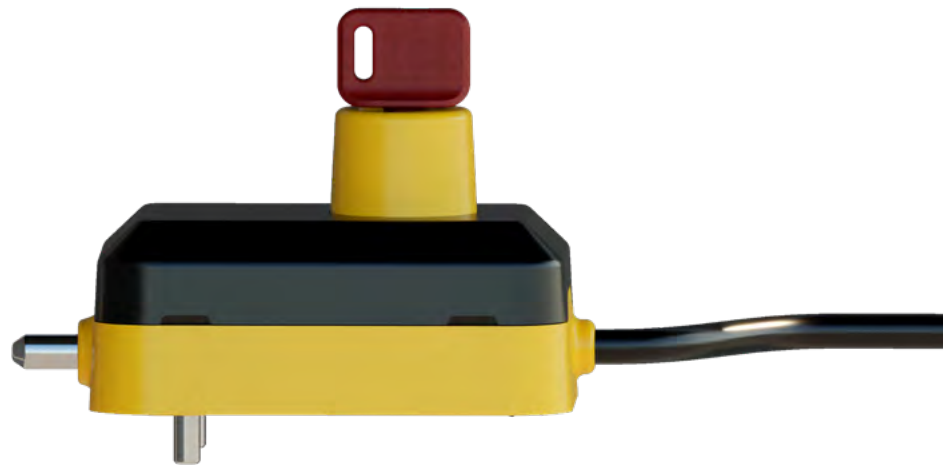


**LOCKING WITH SMART DIGITAL RFID KEY  
16 MILLION CODES, EQUIPPED WITH A SELF-LEARNING SYSTEM**

# LockGard®

**Conformity:**

ISO 13849-1 2015  
EN 62061/A2 2015  
EN 60947-5-3 2014  
ISO 14119 2013  
SIL3 PLe with AWAX26XXL / AWAX SOFT



**2 IN 1**

**BY COMITRONIC-BTI**

**Interlocking safety device for rotary disconnect switch, power-on device, hazardous machine safeguard with input/output management by special RFID key control up to 16 million codes.**

## Technical Specifications

### Technical Data

Feed Type	DC
Voltage (Type/Min/Max)	24V +/-10%
Current, mA (Max)	380
IP (Box/Cable)	IP65/IP65
Weight (Transmitter/Receiver)	300g
Working temperatures	-25°C to +50 °C
8-pin M12 connector	50 cm or 2.20 m

### Types of Errors

Error Type	Indication
Bad RFID code in the key	1 pulse
Bad input data	2 pulses
Inter-processor communication lost	3 pulses

### Wire Colors

Color	Name	Contact	I/O Type	Maximum Voltage	Max Current
1 white	T11	LDP	NO	+48V	250mA
2 brown	+24V			+26.4V	380mA
3 green	AUX	PNP	NC	+26.4V	50mA
4 yellow	T21	LDP	NO	+48V	250mA
5 grey	T12	LDP	NO	+48V	250mA
6 pink	T22	LDP	NO	+48V	250mA
7 blue	0V				
8 red	Unlock	PNP	NO	+26.4V	2mA

### Key

LDP : Potential-free

PNP : Switching to positive potential load

NPN : Switching to negative potential load

NO : Normally open

NF : Normally Closed

The rotary disconnect switch is in the ON position, the machine is running, the key is trapped

### Rotary disconnect switch and Lockgard® M1

- The latch is retracted
- The key is trapped (in position V)
- The rotary disconnect switch is free to rotate
- contacts T11/T12 T21/T22 are closed
- RFID identifiers are transmitted
- The indicator light is green

A1

### Machine under voltage

#### Safety













T11 T21 +24V  
T12 T22 AUX



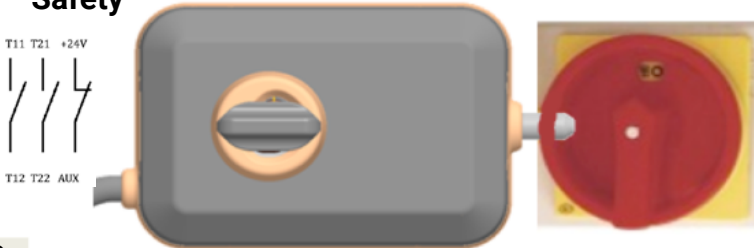





### Disconnecter



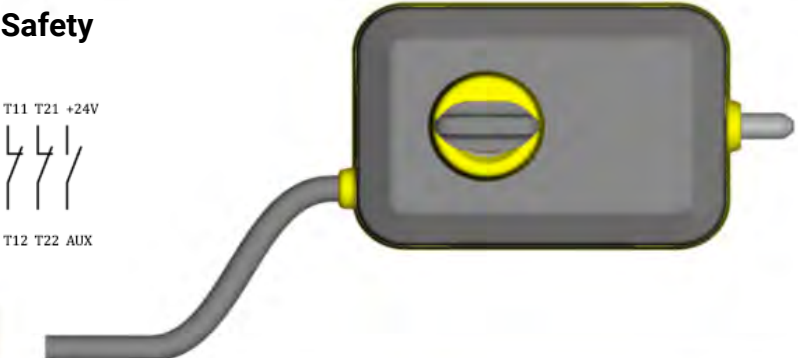

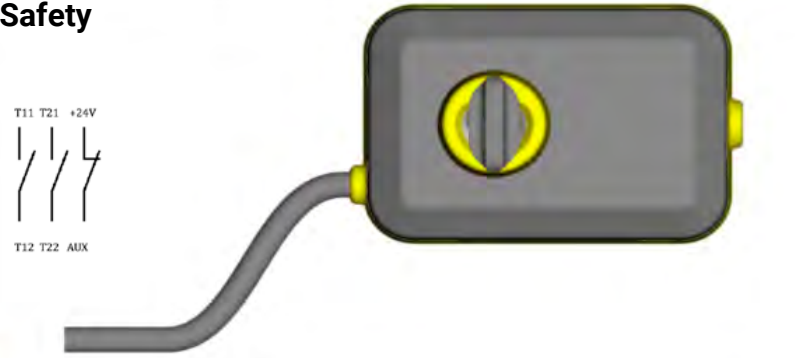

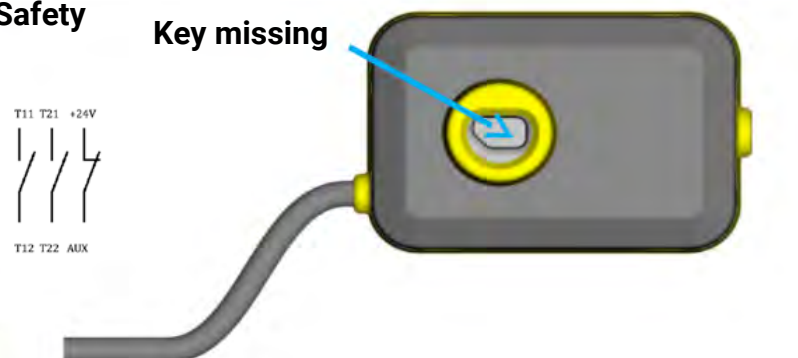

## Stop the Machine

<p><b>Rotary disconnect switch and Lockgard® M1</b></p> <ul style="list-style-type: none"> <li>• Turn the rotary disconnect switch to OFF</li> <li>• The current or power unit is closed</li> </ul>	<p><b>Safety</b></p>    <p><b>A3</b></p>	<p><b>Disconnecter</b></p> 
<p><b>Lockgard® M1</b></p> <ul style="list-style-type: none"> <li>• Activate the unlocking command (red UNLOCK wire), the indicator light is orange</li> <li>• Turn the key from right to left (in position H), the indicator light is red</li> <li>• The key is free</li> <li>• The latch locks the rotary disconnect switch</li> <li>• Contacts T11 / T12 T21 / T22 are open</li> </ul>	<p><b>Safety</b></p>    <p><b>A4</b></p>	<p><b>Disconnecter</b></p> 
<p><b>Lockgard® M1</b></p> <ul style="list-style-type: none"> <li>• Remove the key</li> <li>• Loss of the key's RFID ID</li> </ul>	<p><b>Safety</b></p>    <p><b>A5</b></p>	<p><b>Disconnecter</b></p> 

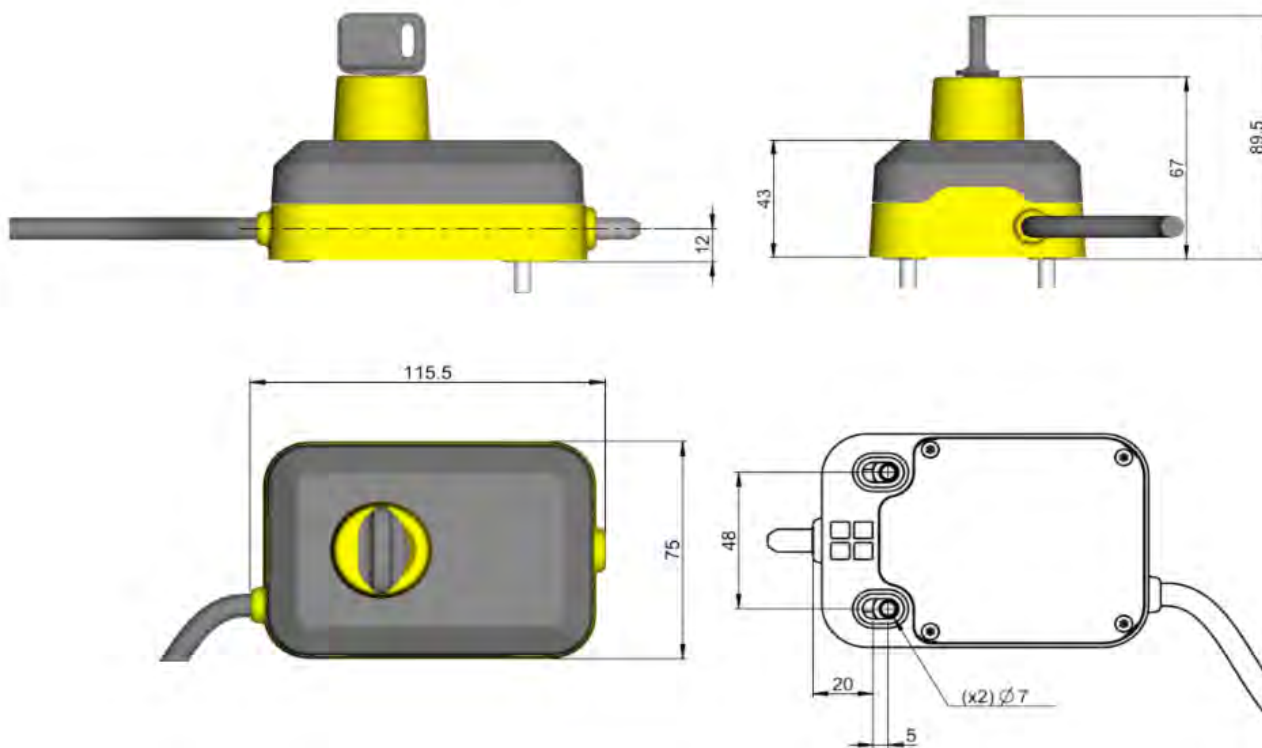
## Restart the Machine

<p><b>LOCKGARD® M1</b></p> <ul style="list-style-type: none"> <li>• Insert the key, the indicator light is orange</li> <li>• RFID ID are transmitted</li> </ul>	<p><b>Safety</b></p>  <p><b>A3</b></p>	<p><b>Disconnecter</b></p> 
<p><b>Lockgard® M1</b></p> <ul style="list-style-type: none"> <li>• Turn the key from left to right (in position V), the indicator light is green</li> <li>• The key is trapped</li> <li>• The latch is retracted</li> <li>• The rotary disconnect switch is free to rotate</li> <li>• The contacts T11/T12 T21/T22 are closed</li> </ul>	<p><b>Safety</b></p>  <p><b>A4</b></p>	<p><b>Disconnecter</b></p> 
<p><b>Lockgard® M1</b></p> <ul style="list-style-type: none"> <li>• The rotary disconnect switch is closed</li> <li>• The current or power unit is on</li> </ul>	<p><b>Safety</b></p>  <p><b>A5</b></p>	<p><b>Disconnecter</b></p> 

## Hazardous machine safeguard locking with input/output management

<p><b>Lockgard® M2</b></p> <ul style="list-style-type: none"> <li>• The latch is out, the door is locked</li> <li>• The key in position H is trapped</li> <li>• RFID ID are transmitted</li> <li>• The contacts T11/T12 T21/T22 are closed</li> <li>• The indicator light is green</li> </ul>	<p><b>Safety</b></p>  <p>T11 T21 +24V T12 T22 AUX</p> <p><b>E1</b></p>	
<p><b>Lockgard® M2</b></p> <ul style="list-style-type: none"> <li>• Activate the unlocking command (red UNLOCK wire), the indicator light is orange</li> <li>• Turn the key from right to left (in position H), the indicator light is red</li> <li>• The latch is retracted</li> <li>• The key is free</li> <li>• Contacts T11 / T12 T21 / T22 are open</li> </ul>	<p><b>Safety</b></p>  <p>T11 T21 +24V T12 T22 AUX</p> <p><b>E2</b></p>	
<p><b>Lockgard® M2</b></p> <ul style="list-style-type: none"> <li>• The key is removed and the operator enters the dangerous zone in complete safety</li> <li>• RFID ID are no longer transmitted</li> <li>• The key is trapped, it is not possible to close the contacts T11/T12 T21/T22</li> </ul>	<p><b>Safety</b>      <b>Key missing</b></p>  <p>T11 T21 +24V T12 T22 AUX</p> <p><b>E3</b></p>	

**Dimensions**



Latch diameter:  
 $\phi 10$  : Lockgard®\_M2  
 $\phi 6$  : Lockgard®\_M1

**COMITRONIC - BTI**



**COMITRONIC-BTI**

**14 Rue Pierre Paul de Riquet 33610 Canéjan - France**

**Tel : +33 5 64 10 04 52**

**Email : [sales@comitronic-bti.com](mailto:sales@comitronic-bti.com)**

**[www.comitronic-bti.com](http://www.comitronic-bti.com)**