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Safety components



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# Non-contact coded interlocking

- Stand alone Vigilguard
- Non Stand alone Anaguard

## MACHINE SAFETY DOOR INTERLOCKING



**Vigilguard, stand alone,  
PLe Cat.4 acc. to ISO 13849-1**



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# Non-contact coded interlocking

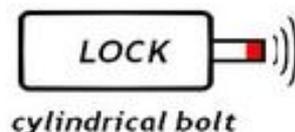
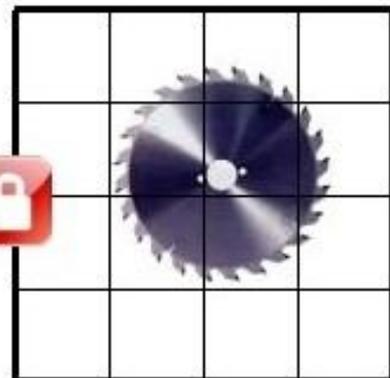
- *Stand alone Vigilguard*
- *Non Stand alone Anaguard*

This range of safety non-contact interlocking device with coded bolt has been developed in collaboration with some machine builders and end users, in food, machine tool, paletiser, in order to offer them a reliable solution.

Monitoring a mobile guard is recommended when personnel require intermittent to frequent access to a hazardous area. If the guard is moved or opened, the interlocking switch prevents cycle initiation or sends a stop signal to the machine control.

By locking the guard closed, our range will prevent access to the machine till it has come to a safe stop, and differentiates from the main competitors by the smooth design, allowing a much longer life expectancy. There is no ruining and a slight misalignment is authorized.

**Vigilguard,  
Anaguard,  
New generation of interlocking**



*cylindrical bolt*



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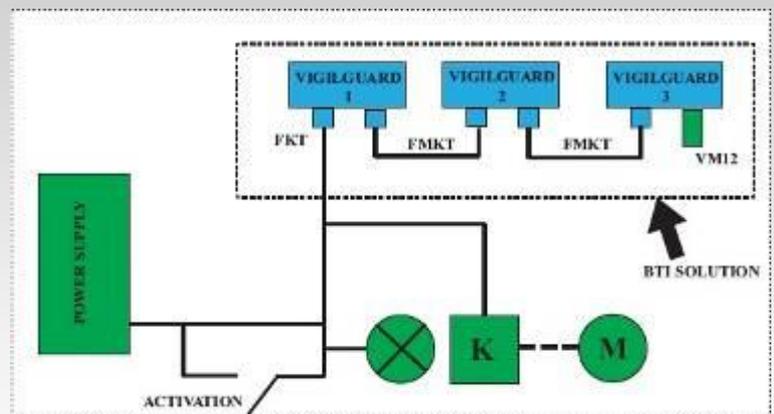
# Non-contact coded interlocking

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Moreover, some interlocking switches on the market do not integrate the safety position of the bolt/key, so another safety switch is required to detect the position of the door and prevent a restarting of the machine even if the interlocking has extracted the bolt/lock.

This range was especially designed to overpass the main mechanical switches limits, mainly in environments where you find:

- heavy contamination,
- high vibration,
- poor actuator/switch alignment.



The main innovations are:

- the position contact integrated in the bolt, so no more additional position safety switch needed,
- the washable receiving strike plate, thanks to a central hole for water release,
- the double M12 connector available, to ease the serial wiring, and facilitate the automatic serial locking,
- an energy saving mode, to avoid unnecessary consumption (96W inrush power for 0.1sec then 1,5W, whatever the number of devices connected in serial),
- and a temperature control (the power supply is off if the heat is up 70°C) and overvoltage control (the power supply is off if +10/-15%).



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# New coded interlocking

*Vigilguard  
Stand alone  
Safety cat4 PLe acc to ISO EN 13849-1*



## Vigilguard

In safety reference, Vigilguard prevents the guarded machine from operating unless the guard is closed and bolt is actuated in the receiving strike plate.

In the automation reference, Vigilguard can check the bolt position (in option) to stop the machine or restart it.

### Benefits

- very rugged and corrosion resistant housing (100% zamak),
- high mechanical power to allow the bolt to easily extract,
- automatic locking of serial wired devices (low power requested),
- easy daisy-chained with its double connector M12 (in option),
- its unique design simplifies the cleaning and compliance with new hygiene requirements, IP66,
- emergency manual release with its key,
- very strong holding force 2500daN / high resistance to shearing 1000daN
- 3 LEDs to show operating system status: On, Eco, Locked door
- no minimum bending radius contrary to mechanical switches,
- safe operation: temperature and energization control,
- duty cycle 100%.



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# Non contact coded interlocking

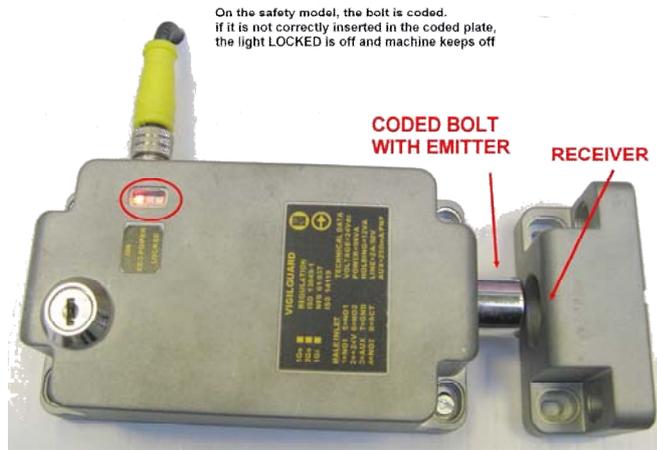
*Vigilguard  
Stand alone  
Safety cat4 PLe acc to ISO EN 13849-1*

## VIGILGUARD SAFETY INTERLOCKING (WITH CODED BOLT & PLATE)

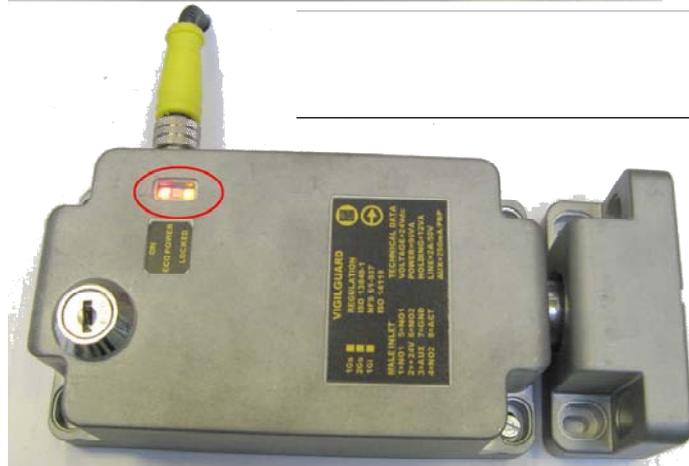
Ref number	Locking mode	Connectors M12	
Vigilguard 1Gs	When un-energized	1	 cylindrical bolt
Vigilguard 2Gs		2	
Vigilguard 1Gi	When energized	1	
Vigilguard 2Gi		2	
AT-08- GVi - 01	Only the coded strike plate		

On this safety version, the bolt is coded.

If it is not correctly inserted in the coded plate, the LOCKED Led doesn't light and machine keeps off



Once the bolt is inserted in the coded plate, it is recognized and the locking is effective. The LOCKED Led lights and machine can restart.







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# Non contact coded interlocking

- Anaguard, non stand alone, in connection with Awax
- Anaguard 2S, stand alone, cat.2



## Anaguard

### Benefits:

- smart size
- very strong composite plastic housing
- its unique design simplifies the cleaning, IP66
- suitable for food industry (EN 1672-2),
- screw cover to comply with new requirements
- high mechanical power to allow the bolt to easily extract,
- emergency manual release with its key
- no minimum bending radius contrary to mechanical switches.

## Anaguard 2S

- stand alone cat2 PLd





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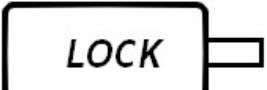
# Non contact coded interlocking

- Anaguard, non stand alone, in connection with Awax
- Anaguard 2S, stand alone, cat.2

## References

<b>ANAGUARD SAFETY INTERLOCKING (WITH CODED BOLT &amp; PLATE)</b>			
<b>Non Stand-alone</b>			
<i>ref</i>	<i>Locking mode</i>	<i>Connectors</i>	 <i>cylindrical bolt</i>
Anaguard Gsm	When un-energized	1 M12	
Anaguard Gsw		1 cable	
Anaguard Gim	When energized	1 M12	
Anaguard Giw		1 cable	
AT- 09-GAN 01	Only the coded strike plate		

<b>ANAGUARD 2S SAFETY INTERLOCKING (WITH CODED BOLT &amp; PLATE)</b>			
<b>Stand alone cat.2 PLd</b>			
<i>ref</i>	<i>Locking mode</i>	<i>Connectors</i>	 <i>cylindrical bolt</i>
Anaguard 2 Gsm	When un-energized	1 M12	
Anaguard 2 Gsw		1 cable	

<b>ANAGUARD AUTOMATION LOCKING WITHOUT PLATE</b>			
<i>ref</i>	<i>Locking mode</i>	<i>Connectors</i>	 <i>cylindrical bolt</i>
AT- 09-AN 02	When un-energized	1 M12	
AT- 09-AN 01		1 cable	
AT- 09-AN 04	When energized	1 M12	
AT- 09-AN 03		1 cable	
AT- 09-GAN 02	Only the strike plate		



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# Non contact coded interlocking

## Power saving feature when using more than 1 interlocking switch

The interlocking safety switches are used on machines where the dangerous hazards continue after the stop of the machine was requested by the operator. This inertia (presses, robots, wood saw...etc). represents a lethal risk sometimes for the operator, and must be avoided by using such safety devices.

Our interlocking range protects the accesses to the operators so they can not be harmed or injured by the machinery and appendices motion. The machine will also not be authorized to restart if the bolt is not correctly inserted and actuated in the receiving striking plate.

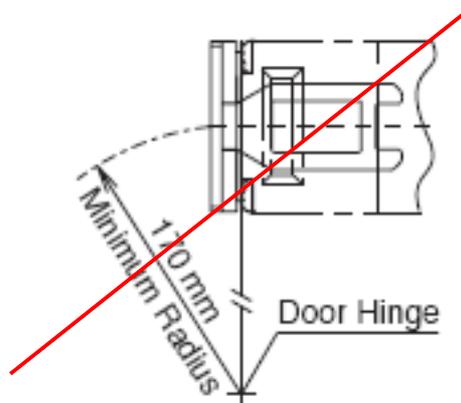


The Anaguard and Vigilguard integrate a feature which can automatically forward the energisation one by one of all the daisy chained interlocks. They will be almost simultaneously powered (0,1sec delay between each).

This ensures most of all that the power source does not have to supply the inrush voltage of all the interlocks at the same time, but only the inrush of one switch i.e. 95W.

After the inrush, only 1,5W per switch is required.

## No minimum radius necessary





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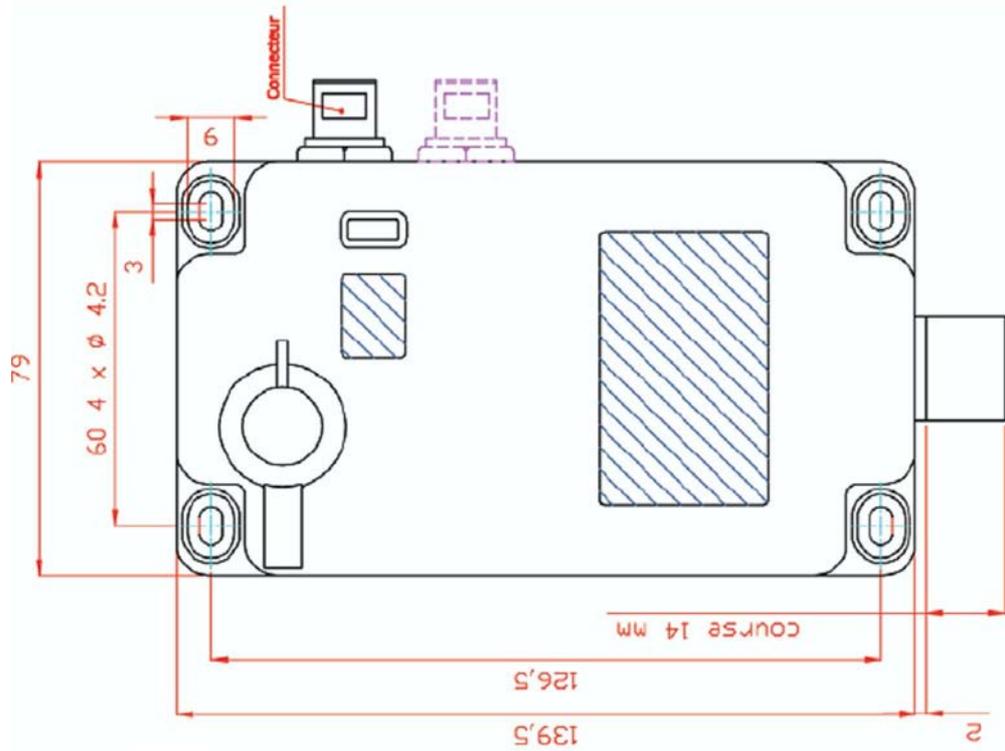


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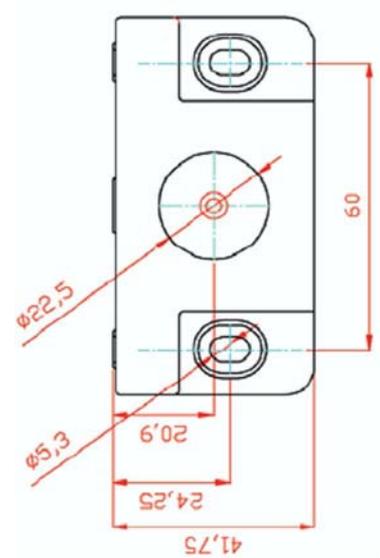
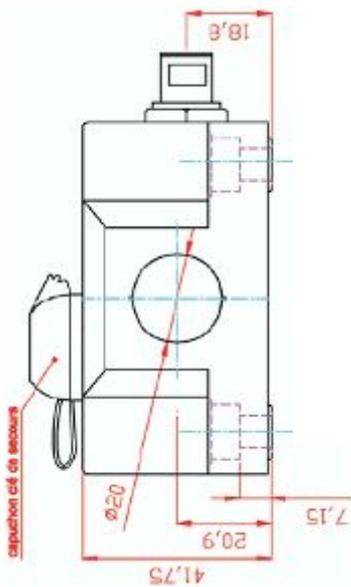
# Non contact coded interlocking

## Vigilguard dimensions

Front view



Side view





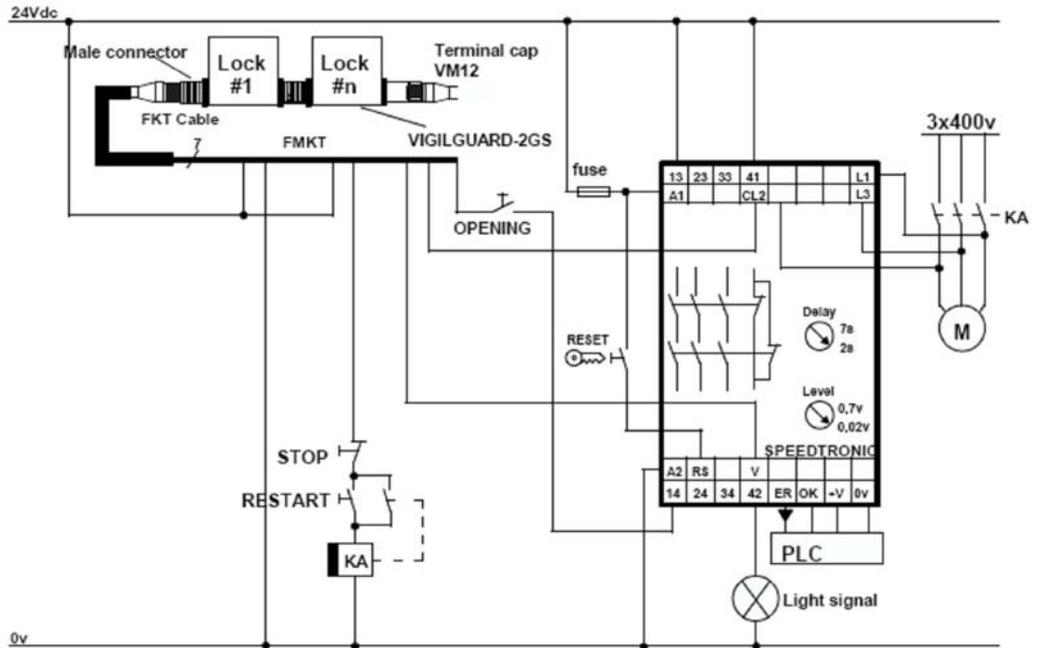
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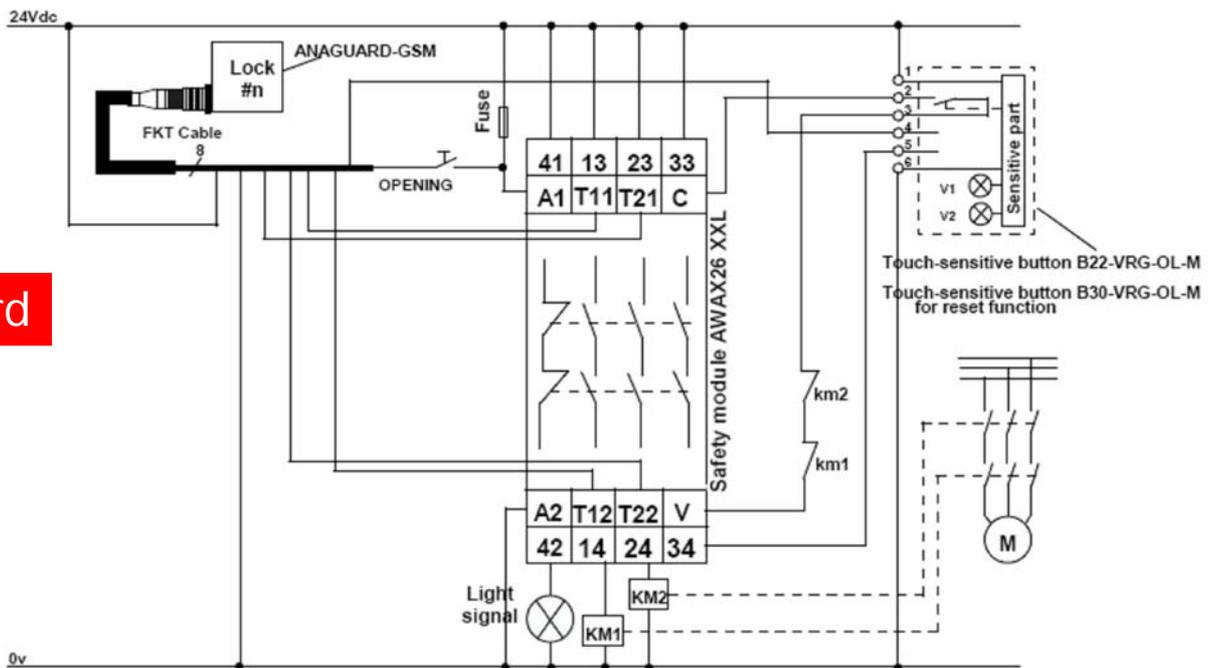
# Non contact coded interlocking

## Wiring diagrams

**Vigilguard**



**Anaguard**



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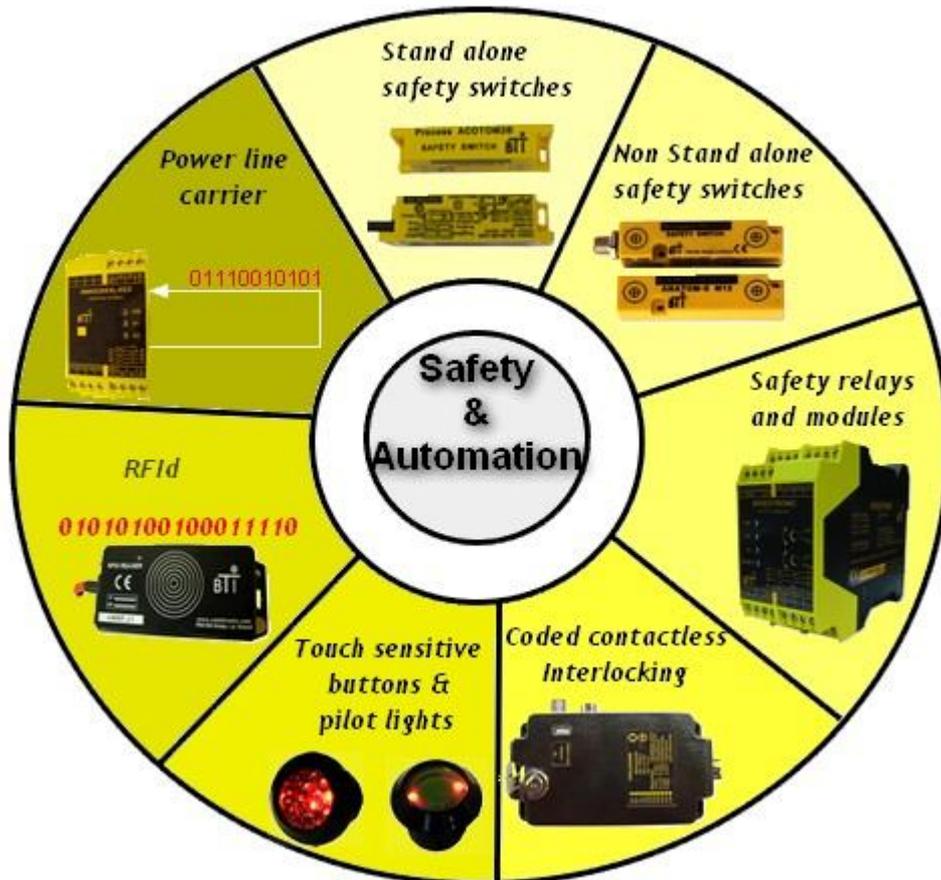


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# Non contact coded interlocking

COMITRONIC-BTi, this is also:

- stand alone safety switches
- non stand-alone safety switches
- safety relays and modules
- illuminated touch-sensitive buttons and pilot lights
- coded interlocking
- RFID access control



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