


**elobau**  <sup>®</sup>  
s e n s o r technology

made in Germany

## Machine safety

---

Configurable safety systems

---

Safety control units

---

Safety sensors

---

Safety locking devices

---

Emergency-stop push buttons

---

# Machine Safety



## **The Bodyguard**

Safety sensors

The bodyguard:  
Perfect monitoring and fast response. Disruption is registered immediately.

## **The Eagle Eye**

Safety control units

The coordinator:  
Permanent monitoring of all input signals. Everything is under control.

## **The Team Leader**

Configurable safety systems

Head of operations:  
Secure monitoring of complex tasks. A major challenge is easily solved.

# Special Unit



## **The Guardian**

Emergency-stop push buttons

The bouncer:

Just in case there is no time for delays. Danger is immediately stopped.

## **The Security Guard**

Safety locking devices

The security service:

No proof of identity – no entry. Access is strictly controlled.

## **Our Mission**

Protecting people, controlling machines – safely and effectively: The elobau special unit is dedicated to the protection of man and machine. Highly sensitive, alert, perceiving all and ready to intervene immediately in risky situations and immediately eliminate possible escalation. They complement each other with their special skills, interact intuitively and are jointly unbeatable.

# Product overview

## Machine safety

All of our safety components are perfectly coordinated and individually configurable. They fulfil the highest safety standards, are certified and, as sensors, are also available in stainless steel (IP69K hygienic version). The elobau product range enables the realisation of versatile safety functions and offers solutions for state detection as well as reliable signal processing. We would be happy to assist you in selecting the right products for a cost-effective total solution tailored to your needs and can adapt our products flexibly and individually to your specific requirements.

### Configurable safety systems

The Team Leader



eloProg  
485 EP ...



eloFlex  
471 EFR ...



Conf. safety control unit  
471 M41 H31 ...



Speed-monitor  
480 041 H.

### Safety control units

The Eagle Eye



462...



463...



470...

### Safety sensors

The Bodyguard



eloProtect E  
153... / 165...



eloProtect M  
153... / 165...



153...



165...



166...

### Safety locking devices

The Security Guard



Straight design  
ZS...



Straight design with  
doubled actuator head ZD...



Compact design  
ZM...

### Emergency-stop push buttons

The Guardian



NHT01D



NHT02D



NHT05D

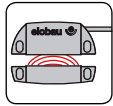


NHT03D

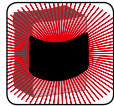


NHT04D

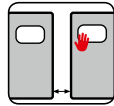
## Monitoring various safety functions



Safety sensor



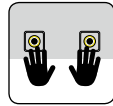
Safety light barriers / scanners



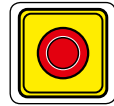
Guard door monitoring



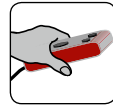
Light curtain



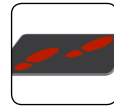
2-hand control



Emergency-stop



Enabling key



Safety mat

No matter whether you require easy-to-wire safety control units or configurable or modular safety systems – at elobau, you will get the complete package for your evaluation, sensor, command and signal unit needs from one source.

▶ p.06 – 09

▶ p.10 – 13



114...



161...



122... / M12



120... / M18



171... / M30



671...



171 1.K.

▶ p.14 – 21

▶ p.22 – 25



NHT04S

▶ p.26 – 29



What she thinks works. What she plans succeeds. What she says is done. Our head of operations leads even the most difficult mission to success. A cool head combines the strengths of the entire team, uses individual skills on demand and handles complex tasks with calculable and absolute reliability.



# The Team Leader



Configurable  
safety systems

**Safe monitoring of complex tasks. A major challenge is easily solved.** The freely configurable safety system provides perfect monitoring and control of complex safety functions on a modular basis and ensures a maximum of reliability and flexibility. Using internal logic the input information is networked – individually and matching the requirements of the application.

# Configurable safety systems



## eloProg 485 EP ...

The eloProg safety system is used to monitor a large number of different safety functions on machines and systems. Through the use of various modules, flexible and economical adaptation to a given task is very easy. The basic module is configured via an intuitive software program. Thanks to the available fieldbus and interface modules, nothing can stand in the way of simple integration into the existing machine control.

## eloFlex 471 EFR ...

eloFlex is the perfect solution for safety applications with low to medium complexity. eloFlex offers configuration options for modular systems. The need-based configuration performed during ordering replaces time-consuming programming. For the user, this means simple system integration as well as time and cost savings through the use of pre-configured and validated units.

<b>safety functions</b>	<ul style="list-style-type: none"> <li>• safety sensor (electro-mechanical, electronic)</li> <li>• light curtain</li> <li>• safety light barriers</li> <li>• emergency-stop</li> <li>• safety mat</li> <li>• enabling switch</li> <li>• guard door monitoring</li> <li>• laser scanner</li> <li>• 2-hand control</li> <li>• operating mode selector</li> <li>• activation key</li> <li>• footswitch</li> </ul>	<ul style="list-style-type: none"> <li>• safety sensors (electro-mechanical, electronic)</li> <li>• safety light barriers</li> <li>• laser scanners</li> <li>• guard door monitoring</li> <li>• light curtain</li> <li>• 2-hand control</li> <li>• emergency-stop</li> </ul>
<b>sensor inputs</b>	max. 128	4
<b>safety outputs</b>	max. 16 (redundant, OSSD, switching to P potential)	max. 4 relays (potential-free)
<b>control outputs</b>	max. 8 (electronic, switching to P potential)	max. 4 (electronic, switching to P potential)
<b>verified frequency</b>	---	---
<b>contact form</b>	NO/NC, NO/NO, OSSD, NO, NC	NO/NC, NO/NO, OSSD
<b>operating voltage</b>	24 V DC	24 V DC
<b>dimensions (height x width x depth)</b>	99 x 22,5 x 114,5 mm	132 x 45 x 120 mm
<b>safety characteristics</b>	<ul style="list-style-type: none"> <li>• SIL 3</li> <li>• SIL<sub>cl</sub> 3</li> <li>• PL e</li> <li>• cat.: 4</li> </ul>	<ul style="list-style-type: none"> <li>• SIL<sub>cl</sub> 2</li> <li>• PL d</li> <li>• cat.: 3</li> <li>• SIL<sub>cl</sub> 3</li> <li>• PL e</li> <li>• cat.: 4</li> </ul>
<b>approvals</b>	TÜV, UL/CSA	TÜV, UL/CSA, GOST-R





### Configurable safety control unit 471 M41 H31 ...

A safety control unit with enormous variability and, thus, high level of cost effectiveness. The flexible connection of various contact types from safety sensors, realisation of emergency-stop and two-hand functions and adjustable delay times open a broad range of applications.

### Speed-monitor 480 041 H.

The 480 041 H. speed-monitor can be used universally. It ensures safe operation in setup mode or safe access following a machine standstill. The safe monitoring of movement is made especially simple through interface independence.

ⓘ Please configure your individual safety system eloFlex step by step with our eloFlex configurator on our website: [www.elobau.com/Machine\\_safety](http://www.elobau.com/Machine_safety)  
► eloFlex Configurator

- safety sensors
- emergency-stop
- 2-hand control
- adjustable delay time

- monitoring motion
- monitoring setup operation
- safe access to the machine

4	4
4 relays (potential-free)	4 (electronic, switching to P potential)
4 (electronic, switching to P potential)	---
---	0,5 – 99 Hz      0,1 – 9,9 Hz
NO/NC, NO/NO	---
24 V DC	24 V DC
132 x 45 x 120 mm	96,5 x 22,5 x 121 mm
• SIL 3	• SIL 3
• SIL <sub>cl</sub> 3	• SIL <sub>cl</sub> 3
• PL e	• PL e
• cat.: 4	• cat.: 4
TÜV, ETL/CSA	TÜV

All systems ready? Everything under control? Then our coordinator gives the “Go”! Intelligent, alert, perfectly connected and holding the upper hand, she analyses the entire system. She knows the procedure blindfolded and intervenes at the slightest disorder.



# The Eagle Eye



Safety  
control units

**Permanent monitoring of all input signals. Everything is under control.** These safety systems provide a perfect monitoring of diverse safety functions and ensure a maximum of efficiency and flexibility. A perfect fit – no more and no less. They evaluate and pass on the information of several sensors or emergency-stop push buttons. Separate safety and control outputs and the high standards of PL e and SIL 3 provide both reliability and flexibility.

# Safety control units



## Safety control unit 462...

## Safety control unit 463...

Due to the very compact construction, the safety control units of the 462/463 series are ideal for mounting in situations where space is very limited and are used for the safe monitoring of guard-door functions.

<b>safety functions</b>	• safety sensor	• safety sensor • emergency-stop
<b>sensor inputs</b>	4	1                      2
<b>safety outputs</b>	1 relay (potential-free)	2 relays (potential-free) 1 relay (potential-free)
<b>control outputs</b>	1 relay (potential-free)	---
<b>contact form</b>	NO / NC	NO / NO, NO / NC
<b>operating voltage</b>	24 V AC/DC... 230 V AC	24 V DC... 230 V AC
<b>dimensions (height x width x depth)</b>	75 x 47 x 92 mm	75 x 25 x 94 mm
<b>safety characteristics</b>	• SIL <sub>cl</sub> 2 • PL d • cat.: 3	• SIL <sub>cl</sub> 3 • PL e • cat.: 4
<b>approvals</b>	TÜV, ETL/CSA, GOST-R	TÜV, ETL/CSA, GOST-R



## Safety control unit 470...

The 470 series is equipped with plug-in and codeable terminals and thereby offers uncomplicated and safe installation. Integrated LEDs make possible simple diagnostics and status requests of guard-door or emergency-stop functions.



Matching interfaces for our safety control units can be found on our website:  
[www.elobau.com/Machine\\_safety](http://www.elobau.com/Machine_safety)

► Interface

- 
- safety sensor
  - emergency-stop

---

2

---

2 relays (potential-free)

---

---

---

NO / NO, NO / NC

---

24 V DC... 240 V AC

---

132 x 22,5 x 120 mm

- 
- |                       |                       |
|-----------------------|-----------------------|
| • SIL <sub>cl</sub> 2 | • SIL <sub>cl</sub> 3 |
| • PL d                | • PL e                |
| • cat.: 3             | • cat.: 4             |

---

TÜV, ETL/CSA, GOST-R

---

All tested, all safe! Wide awake and confident our bodyguard sees even the smallest movement. He is in constant contact with the control center, evaluates potential risks with lightning speed and intervenes immediately if security is compromised.





# The Bodyguard



Safety sensors  
(RFID and magnetic)

**Perfect monitoring and fast response. Disruption is registered immediately.** elobau offers a comprehensive range of magnetic and electronic safety sensors that serve to monitor movable safety guards. Doors, hoods or covers can be safely monitored with this non-contact and therefore wear-free sensor system. Requirements for robustness, water tightness and small size are met without exception. elobau has also developed safety sensors in stainless steel especially for safety-gate monitoring of food processing equipment which, because of their resistance to cleaning agents and high temperatures, are ideal for use in hygienic and wet areas.

# Safety sensors

**eloProtect E**  
RFID Safety Sensors

**eloProtect M**  
Magnetic Safety Sensors

## Application and use of non-contact safety sensors

Magnetic or electronic safety sensors are used to monitor moving guards such as guard doors, hoods or covers.

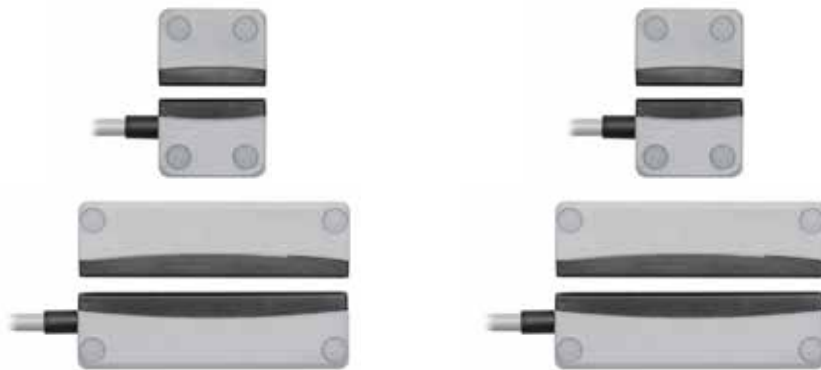
The non-contact and therefore wear-free sensors make it possible to meet requirements on long lifetime, small size or hygiene and give the user a great deal of latitude when creating a machine concept.

elobau developed magnetically-operated safety sensors and established them on the market decades ago. With this experience and expertise, elobau is now defining the next step in the development of safety sensors – the eloProtect series.

The application of eloProtect E or M sensors can be extremely variable due to the compact and versatile design. They can be attached to or integrated in all kinds of protective equipment. The variety of designs and the applied technology with complete mechanical compatibility make them especially valuable for users.

In highly-automated processes, e.g. food production, not only must standards and guidelines of the Machinery Directive be satisfied, but strict requirements on hygiene and the cleaning of machines and systems also apply.

elobau has designed safety sensors in stainless steel or plastic especially for monitoring guard doors of food processing machinery, which, due to their thermal stability and resistance to cleaning agents, are optimally suited for use in hygienic and wet areas.



### RFID safety sensor eloProtect E

The RFID technology used in the eloProtect E sensors offers the user individual coding possibilities. In addition, the tampering protection can be selected according to the application. The use of this new technology simplifies the mounting conditions through larger offset values and enables the installation of series connections with up to 30 sensors. The direct monitoring of large contactors via the EDM input is possible thanks to the integrated evaluation electronics and the high switching capacity. This means no additional safety modules are necessary and the sensors can also be used as a stand-alone solution.

### Safety sensor eloProtect M

The eloProtect M series of sensors completely re-defines the standard for magnetic safety sensors. eloProtect M convinces with increased sensing distances and offset values for greater variability during mounting and high function stability. The new housing is robust and resistant to mechanical influences and aggressive media.

<b>sensing distance</b>	Sao = 8 mm – 10 mm Sar = 18 mm	Sao = 4 mm – 8 mm Sar = 10 mm – 18 mm
<b>protection class</b>	IP67                      IP6K9K	IP67                      IP6K9K
<b>conductor</b>	cable                      pigtail connector M12 (length 150 mm)	cable                      pigtail connector M12 (length 150 mm)
<b>contact form</b>	---	NO / NO, NO / NC
<b>safety outputs</b>	OSSD (switching to P potential, short-circuit proof)	---
<b>control contact</b>	---	optional
<b>control output</b>	electronic (switching to P potential, short-circuit proof)	---
<b>temperature range</b>	-25 °C ... +70 °C	-25 °C ... +80 °C
<b>housing material</b>	PBT (grey), PC (black)	PBT (grey), PC (black)
<b>dimensions (height x width x depth)</b>	housing 153... : 26 x 36 x 13 mm housing 165... : 25 x 88 x 13 mm	housing 153... : 26 x 36 x 13 mm housing 165... : 25 x 88 x 13 mm
<b>safety characteristics</b>	<ul style="list-style-type: none"> <li>• SIL 3</li> <li>• SIL<sub>CL</sub> 3</li> <li>• PL e</li> </ul>	<ul style="list-style-type: none"> <li>• SIL 3*</li> <li>• SIL<sub>CL</sub> 3*</li> <li>• PL e*</li> </ul>
<b>approvals</b>	TÜV, UL/CSA (in progress)	TÜV, UL/CSA (in progress)

\*with matching elobau safety control unit only

# Safety sensors



## Safety sensor 153...

Due to the small dimensions, the extensive range of 153... safety sensors is ideally suited for confined spaces.

## Safety sensor 165...

With PBT or stainless steel design, the 165... series is predestined for demanding application areas, e.g., for the hygienic or wet areas of a machine or system.

<b>sensing distance</b>	Sao = 3 mm – 9 mm Sar = 7 mm – 18 mm	Sao = 4 mm – 15 mm Sar = 11 mm – 26 mm
<b>protection class</b>	IP67	up to IP6K9K
<b>conductor</b>	cable                      connector M8	cable with/without      connector M8 covering
<b>contact form</b>	NO / NO, NO / NC	NO / NO, NO / NC
<b>safety outputs</b>	---	---
<b>control contact</b>	optional	optional
<b>control output</b>	---	---
<b>temperature range</b>	-25 °C ... +100 °C	-25 °C ... +100 °C
<b>housing material</b>	PBT	PBT                      Stainless steel
<b>dimensions (height x width x depth)</b>	26 x 36 x 13 mm	25 x 88 x 14 mm      28 x 96 x 14,5 mm (PBT)                      (Stainless steel)
<b>safety characteristics*</b>	<ul style="list-style-type: none"> <li>• SIL 3</li> <li>• SIL<sub>cl</sub> 3</li> <li>• PL e</li> </ul>	<ul style="list-style-type: none"> <li>• SIL 3</li> <li>• SIL<sub>cl</sub> 3</li> <li>• PL e</li> </ul>
<b>approvals</b>	TÜV, ETL/CSA, GOST-R	TÜV, ETL/CSA, GOST-R

\*with matching elobau safety control unit only



### Safety sensor 166...

For large guard doors and flap monitors, e.g., in packaging machines, we recommend safety sensors of the 166 series. They offer maximum flexibility and adaptability to the application due to, among other things, various cable outlet options.



### Safety sensor 114...

The 114... series is a simple, compact solution and is ideally suited for tight spaces. This series offers extremely flexible mounting as the safety sensor can be actuated from several directions.



All possible cable sets and connectors can be

found on our website:

[www.elobau.com/Machine\\_safety](http://www.elobau.com/Machine_safety)

► Cable sets & Accessories

Sao = 8 mm	Sao = 2 mm – 8 mm	
Sar = 13 mm – 14 mm	Sar = 10 mm – 20 mm	
IP67	IP67	
variable cable exit	cable	connector M8
NO / NO, NO / NC	NO / NO, NO / NC	
---	---	
---	optional	
---	---	
-25 °C ... +75 °C	-25 °C ... +75 °C	
PBT	PBT	
26 x 67 x 15 mm (installation size)	14,5 x 67 x 15 mm (actuator)	25 x 50 x 10 mm
• SIL 3 • SIL <sub>cl</sub> 3 • PL e	• SIL 3 • SIL <sub>cl</sub> 3 • PL e	
TÜV, ETL/CSA, GOST-R	TÜV, ETL/CSA, GOST-R	

# Safety sensors



## Safety sensor 161...

The nearly cubic 161... safety sensors are characterised by various connection options and status monitoring by means of LED.



## Safety sensor 122... / M12

The completely sealed stainless-steel housing can withstand even intense cleaning with aggressive media at extreme temperatures. At the same time, the safety sensor is one of the smallest on the market. The M12 safety sensor is small, flexible, robust and safe and is therefore ideal for use within the process area of the machines.



## Safety sensor 120... / M18

The stainless steel housing and corresponding hygienic magnets of the 120... series makes it ideally suited to the food processing industry.

<b>sensing distance</b>	Sao = 4 mm - 7 mm Sar = 11 mm - 20 mm	Sao = 7 mm - 15 mm Sar = 20 mm - 28 mm	Sao = 4 mm - 13 mm Sar = 13 mm - 30 mm
<b>protection class</b>	IP 67	up to IP6K9K	up to IP6K9K
<b>conductor</b>	cable                      connector M8, M12	cable                      pigtail connector M12 (length 100 mm)	cable                      pigtail connector M8 (length 100 mm)
<b>contact form</b>	NO/NO, NO/NC	NO/NO, NO/NC	NO/NO, NO/NC
<b>safety outputs</b>	---	---	---
<b>control contact</b>	---	---	---
<b>control output</b>	---	---	---
<b>temperature range</b>	-25 °C ... +75 °C	-25 °C ... +80 °C	-25 °C ... +75 °C
<b>housing material</b>	PBT	PBT                      Stainless steel	PBT                      Stainless steel
<b>dimensions (height x width x depth)</b>	45 x 40 x 30 mm	M12 x 46 mm (PBT)                      M12 x 55,5 mm (Stainless steel)	M18 x 57 mm (PBT)                      M18 x 55 mm (Stainless steel)
<b>safety characteristics*</b>	<ul style="list-style-type: none"> <li>• SIL 3</li> <li>• SIL<sub>CL</sub> 3</li> <li>• PL e</li> </ul>	<ul style="list-style-type: none"> <li>• SIL 3</li> <li>• SIL<sub>CL</sub> 3</li> <li>• PL e</li> </ul>	<ul style="list-style-type: none"> <li>• SIL 3</li> <li>• SIL<sub>CL</sub> 3</li> <li>• PL e</li> </ul>
<b>approvals</b>	TÜV, ETL/CSA, GOST-R	TÜV, ETL/CSA, GOST-R	TÜV, ETL/CSA, GOST-R

\*with matching elobau safety control unit only





### Safety sensor 171.../ M30

Safety sensors of the 171... series are also available in stainless steel and plastic as well as optionally with an LED display and various connection options.

### Safety sensor 671...

Safety sensors 671... with ATEX certification are intended for use in areas subject to explosion hazards due to gases or dust. The sensors are designed so that no explosions can be caused, for example, by flying sparks, among other things due to the optional selection of an earth clamp.

### Safety sensor with integrated control unit 171 1.K.

The combination of safety sensors and safety control electronics in one housing is the cost-effective and space-saving solution for guard-door or hood monitoring. An additional control unit in the switch cabinet is no longer necessary.

ⓘ Please select the specifications of your sensor with the Sensor Selector on our website:  
[www.elobau.com/Machine\\_safety](http://www.elobau.com/Machine_safety)  
► elobau sensor select

Sao = 4 mm – 7 mm Sar = 11 mm – 20 mm	Sao = 4 mm – 7 mm Sar = 14 mm – 23 mm	Sao = 7 mm – 10 mm Sar = 18 mm – 21 mm
up to IP6K9K	IP68 10 bar	IP67
cable exit conector M8, M12, Torson-conector	contact QUICKON <sup>1)</sup> to link sensors	cable
NO / NO, NO / NC	NO / NO, NO / NC	---
---	---	1 relay (potential-free)
optional	---	---
---	---	1 relay (potential-free)
-25 °C ... +100 °C	-25 °C ... +85 °C	-25 °C ... +70 °C
PBT M30 x 37 mm (PBT)	Stainless steel M30 x 42 mm (Stainless steel)	Stainless steel M30 x 52,8 mm
• SIL 3 • SIL <sub>cl</sub> 3 • PL e	• SIL 3 • SIL <sub>cl</sub> 3 • PL e	• SIL 2 • SIL <sub>cl</sub> 2 • PL d
TÜV, ETL/CSA, GOST-R	ETL, ATEX according to RL 94/9/EG	TÜV, ETL/CSA, GOST-R

1) registered trademark of Phoenix Contact

Identify yourself! Our security guard knows what is at stake if anyone gains unauthorised access. Impossible to get past him - unless authorised by the control center.



# The Security Guard



Safety  
locking devices

**No proof of identity – no entry. Access is strictly controlled.**

The Elobau safety locking devices prevent unauthorised access to machines with a clamping force of up to 2500 N. All variants are available with a closed or open circuit operation. They can be installed in any position and the heads in all models can be rotated in 90° steps. By using actuating heads made of die-cast aluminum, and the high degree of protection offered under IP67, the solenoid interlocks are suitable for extreme environmental conditions. Different push buttons and designs provide the flexibility to control potentially hazardous situations.

# Safety locking devices



## Straight design ZS...

The slim design of the ZS... safety locking device offers numerous mounting options.



## Straight design with doubled actuator head ZD...

The ZD... safety locking device has a slim design similar to that of the ZS... series. The double actuator head enables the simultaneous locking of two safety guards.

<b>protection class</b>	IP67		IP67	
<b>locking force</b>	2500 N		2500 N	
<b>guard locking types</b>	closed-circuit current principle	open-circuit current principle	closed-circuit current principle	open-circuit current principle
<b>conductor</b>	screw terminal		screw terminal	
<b>solenoid operating voltage</b>	24 V AC/DC		24 V AC/DC	
<b>dimensions (height x width x depth)</b>	190 x 40 x 42 mm		228 x 42 x 72 mm	
<b>approvals</b>	UL/CSA, DGUV		UL/CSA, DGUV	



## Compact design

### ZM...

The small dimensions of the ZM... design enable mounting even in confined installation conditions. Thanks to the simple external shape, the robust safety locking device is easy to mount.



All accessories for safety locking devices can be found on our website:

[www.elobau.com/Machine\\_safety](http://www.elobau.com/Machine_safety)

► Safety locking device

IP67	
2000 N	
closed-circuit current principle	open-circuit current principle
screw terminal	
24 V AC/DC	
96 x 79 x 37,5 mm	
UL/CSA, DGUV	

On or off, emergency or not! Always present and beyond doubt our bouncer does his job: He makes split second decisions. Determined and clear, without discussion, without delay!





# The Guardian



Emergency-stop  
push buttons

**Just in case there is no time for delays. Danger is immediately stopped.** The elobau emergency stop buttons are extremely reliable and robust. The switches meet all current norms and standards up to IP69K for hygienic designs in the food industry. The emergency stop button and the associated contact elements round off the machine safety program of elobau. As with the direct-acting safety devices, the emergency stop buttons are also available in different designs to meet different requirements and applications. In an emergency a single action prevents or limits damage.

# Emergency-stop push buttons



**Emergency-stop push button NHT01D**

standard



**Emergency-stop push button NHT02D**

hygienic type with approval for food processing industry



**Emergency-stop push button NHT05D**

with operation protective collar

<b>protection class</b>	IP69K	IP69K	IP65
<b>unlocking</b>	rotary unlocking left / right	rotary unlocking left / right	rotary unlocking left / right
<b>illumination</b>	---	---	---
<b>conductor</b>	screw terminal	screw terminal	screw terminal
<b>contact form</b>	selectable	selectable	selectable
<b>mounting hole</b>	22,3 mm	22,3 mm	22,3 mm
<b>approvals</b>	TÜV, cULus	TÜV, cULus, DGUV Test "Hygiene tested"	TÜV, cULus
<b>norms</b>	<ul style="list-style-type: none"> <li>• EN 60947-5-1</li> <li>• EN 60947-5-5</li> <li>• EN 60068</li> <li>• EN ISO 13850</li> </ul>	<ul style="list-style-type: none"> <li>• EN 60947-5-1</li> <li>• EN 60947-5-5</li> <li>• EN 60068</li> <li>• EN ISO 13850</li> </ul>	<ul style="list-style-type: none"> <li>• EN 60947-5-1</li> <li>• EN 60947-5-5</li> <li>• EN 60068</li> <li>• EN ISO 13850</li> </ul>



**Emergency-stop  
push button  
NHT03D**

with blocking protective collar



**Emergency-stop  
push button  
NHT04D**

with a illuminated blocking  
protective collar

**Emergency-stop  
push button  
NHT04S**

with illuminated blocking protective  
collar and key release



Matching contact elements  
for our emergency-stop  
push buttons can be found  
on our website:

[www.elobau.com/Machine\\_safety](http://www.elobau.com/Machine_safety)  
► Emergency-stop push button

IP65	IP65	IP65
rotary unlocking left / right	rotary unlocking left / right	key unlocking
---	yes	yes
screw terminal	screw terminal	screw terminal
selectable	selectable	selectable
22,3 mm	22,3 mm	22,3 mm
TÜV, cULus	TÜV, cULus	TÜV, cULus
<ul style="list-style-type: none"> <li>• EN 60947-5-1</li> <li>• EN 60947-5-5</li> <li>• EN 60068</li> <li>• EN ISO 13850</li> </ul>	<ul style="list-style-type: none"> <li>• EN 60947-5-1</li> <li>• EN 60947-5-5</li> <li>• EN 60068</li> <li>• EN ISO 13850</li> </ul>	<ul style="list-style-type: none"> <li>• EN 60947-5-1</li> <li>• EN 60947-5-5</li> <li>• EN 60068</li> <li>• EN ISO 13850</li> </ul>

# Your partner for machine safety

Company headquarters in Leutkirch, Plant 1



## Facts and figures

- Company headquarters in Leutkirch in Allgäu (Southern Germany)
- Founded 1972
- 3 production plants
- 10 sales subsidiaries
- Executive management: Michael Hetzer, Dietmar Weik, Dr. Thilo Ittner
- Approx. 670 employees worldwide
- Represented in 31 countries

## elobau sensor technology: Your global partner

As an expanding, globally active, medium-sized family business with more than 600 employees, we develop and manufacture sensor technology and operator interface controls for the industrial machine and off-highway vehicle sectors. Our high-quality products are characterised by a high vertical range of manufacture and are manufactured in a carbon-neutral manner in Germany. With our innovative, non-contact sensor products, we support our customers worldwide in manufacturing industrial machines and vehicles that set standards in terms of performance, operator comfort, safety and quality. With our products in the field of machine safety, we have committed to protecting man and machine and offer the highest quality and reliability.

Plant 2 in Leutkirch



Tool manufacturing plant in Lichtenhain



### **Customised solutions for your applications**

True to this motto, elobau has been developing and manufacturing safety technology for mechanical engineering and plant construction for over 40 years. Specific risks as well as specific environmental conditions characterise different user industries, e.g. the food industry, the packaging sector or even process technology. elobau takes on these requirements not only with the development and manufacture of sensors and system solutions, but also through qualified support and consultation in the selection of products and the application of standards and guidelines. Reliable sensors and control units from elobau protect man, machine and the environment, while at the same time enabling the efficient use of machines and systems.

### **Service and consulting: reliable products, safe applications**

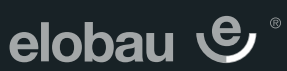
elobau will assist you in the creation of a safety concept and design as well as with the risk assessment or validation of your machine or system. With elobau, machine safety is our responsibility and commitment, not a coincidence.

#### **Information and contact options**

☎ + 49 (0) 75 61 97 0-317  
machinesafety@elobau.com  
[www.elobau.com/Machine\\_safety](http://www.elobau.com/Machine_safety)

Or select a region on  
[www.elobau.com/Contact/Sales](http://www.elobau.com/Contact/Sales)

③ The relevant corresponding technical documents will be supplied with the product. Certain product descriptions can be similar therefore please ensure that you have the latest version of documentation for your specific product prior to any use. elobau reserves the right to change technical data and documentation without notice.



GmbH & Co. KG  
Zeppelinstr. 44  
88299 Leutkirch  
Germany

☎ + 49 (0) 75 61 97 00  
📠 + 49 (0) 75 61 97 01 00  
[www.elobau.com](http://www.elobau.com)  
[info@elobau.de](mailto:info@elobau.de)