

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

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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

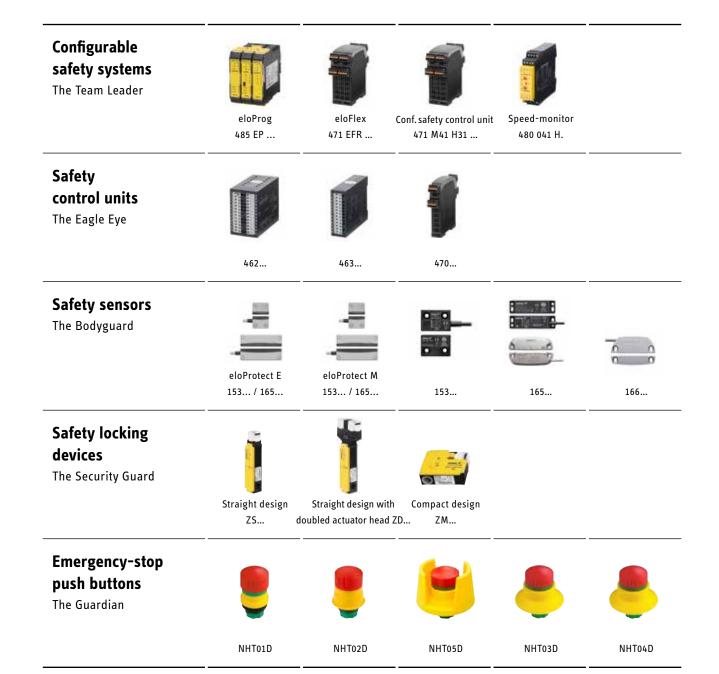
The security service: No proof of identity – no entry. Access is strictly controlled.

#### **Our Mission**

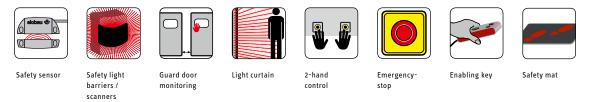
Protecting people, controlling machines – safely and effectively: The elobau special unit is dedicated to the protection of man and machine. Highly sensitive, alert, perceiving all and ready to intervene immediately in risky situations and immediately eliminate possible escalation. They complement each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



### Monitoring various safety functions



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.

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				- <b>4</b> 1 -49-6			p. 14 - 21
114	161	122 / M12	120 / M18	171 / M30	671	171 1.K.	۲

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p.10 - 13



p. 26 - 29

NHT04S

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.

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the last

## 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 needbased 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 preconfigured and validated units.

safety functions	• safety sensor (electro-mechanical, electronic)	• safety sensors (electro-mechanical, electronic)		
	• light curtain	<ul> <li>safety light barriers</li> </ul>		
	<ul> <li>safety light barriers</li> </ul>	<ul><li> laser scanners</li><li> guard door monitoring</li></ul>		
	<ul> <li>emergency-stop</li> </ul>			
	• safety mat	• light curtain		
	<ul> <li>enabling switch</li> </ul>	• 2-hand control		
	<ul> <li>guard door monitoring</li> </ul>	• emergency-stop		
	• laser scanner			
	• 2-hand control			
	<ul> <li>operating mode selector</li> </ul>			
	<ul> <li>activation key</li> </ul>			
	• footswitch			
sensor inputs	max. 128	4		
safety outputs	max. 16 (redundant, OSSD, switching to P potential)	max. 4 relays (potential-free)		
control outputs	max. 8 (electronic, switching to P potential)	max. 4 (electronic, switching to P potential)		
verified frequency				
contact form	NO/NC, NO/NO, OSSD, NO, NC	NO/NC, NO/NO, OSSD		
operating voltage	24 V DC	24 V DC		
dimensions	99 x 22,5 x 114,5 mm	132 x 45 x 120 mm		
(hight x width x depth)				
safety	• SIL 3	• SIL <sub>cL</sub> 2 • SIL <sub>cL</sub> 3		
characteristics	• SIL <sub>cl</sub> 3	• PL d • PL e		
	• PL e	• cat.: 3 • cat.: 4		
	• cat.: 4			
approvals	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 twohand 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
 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	ΤÜV

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.

safety functions	• safety sensor		safety sense	• safety sensor		
			<ul> <li>emergency</li> </ul>	y-stop		
sensor inputs	4		1	2		
safety outputs	1 relay (potential-free)		2 relays (po	tential-free) 1 relay (potential-free)		
control outputs	1 relay (potential-free)					
contact form	NO/NC		N0/N0, N0	N0/N0, N0/NC		
operating voltage	24 V AC/DC 230 V AC		24 V DC 23	o V AC		
dimensions	75 x 47 x 92 mm		75 x 25 x 94	mm		
(hight x width x depth)						
safety characteristics	• SIL <sub>CL</sub> 2	• SIL <sub>CL</sub> 3	• SIL <sub>CL</sub> 2			
	• PL d	• PL e	• PL d			
	• cat.: 3	• cat.: 4	• cat.: 3			
approvals	TÜV, ETL/CSA, GOST-R		TÜV, ETL/CS	A, GOST-R		



### Safety control unit 470...

The 470 series is equipped with plug-in and codable 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

► Interface

<ul> <li>safety sensor</li> </ul>	
<ul> <li>emergency-stop</li> </ul>	
2	
2 relays (potential-free)	
N0/N0, N0/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





#### 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 redefines 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.

sensing distance	Sao = 8 mm - 10 mm		Sao = 4 mm - 8 mm		
	Sar = 18 mm		Sar = 10 mm - 1	18 mm	
protection class	IP67	IP6K9K	IP67	ІР6К9К	
conductor	cable	pigtail connector M12	cable	pigtail connector M12	
		(length 150 mm)		(length 150 mm)	
contact form			NO/NO, NO/NC		
safety outputs	OSSD (switching	to P potential, short-circuit proof)			
control contact			optional		
control output	electronic (switching to P potential,				
	short-circuit pro	of)			
temperature range	-25 °C +70 °C		-25 °C +80 °C		
housing material	PBT (grey), PC (b	lack)	PBT (grey), PC (	black)	
dimensions	housing 153 : 2	6 x 36 x 13 mm	housing 153 :	26 x 36 x 13 mm	
(hight x width x depth)	housing 165 : 2	5 x 88 x 13 mm	housing 165 :	25 x 88 x 13 mm	
safety characteristics	• SIL 3		• SIL 3*		
	• SIL <sub>cl</sub> 3		• SIL <sub>cl</sub> 3*		
	• PL e		• PL e*		
approvals	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.

sensing distance	Sao = 3 mm - 9 mm		Sao = 4 mm - 15 mm	
	Sar = 7 mm - 18 mm		Sar = 11 mm - 26 mm	
protection class	IP67		up to IP6K9K	
conductor	cable	connector M8	cable with/without	connector M8
			covering	
contact form	NO/NO, NO/NC		NO/NO, NO/NC	
safety outputs				
control contact	optional		optional	
control output				
temperature range	-25 °C +100 °C		-25 °C +100 °C	
housing material	PBT		PBT	Stainless steel
dimensions	26 x 36 x 13 mm		25 x 88 x 14 mm	28 x 96 x 14,5 mm
(hight x width x depth)			(PBT)	(Stainless steel)
safety characteristics*	• SIL 3		• SIL 3	
	• SIL <sub>CL</sub> 3		• SIL <sub>cL</sub> 3	
	• PL e		• PL e	
approvals	TÜV, ETL/CSA, GOST-F	3	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 flexbile mounting as the safety sensor can be actuated from several directions.

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All possible cable sets and connectors can be found on our website:

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
N0/N0, N0/NC	NO/NO, NO/NC
	optional
-25 °C +75 °C	-25 °C +75 °C
PBT	PBT
26 x 67 x 15 mm 14,5 x 67 x 15 mm	25 x 50 x 10 mm
(installation size) (actuator)	
• SIL 3	• SIL 3
• SIL <sub>cL</sub> 3	• SIL <sub>ct</sub> 3
• PL e	• 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.

sensing distance	Sao = 4 mm - 7 mm		Sao = 7 mm - 15 mm		Sao = 4 mm - 13 mm	
Ū	Sar = 11 mn	n - 20 mm	Sar = 20 mn	n – 28 mm	Sar = 13 mn	n – 30 mm
protection class	IP 67		up to IP6K9I	K	up to IP6K9I	K
conductor	cable	connector M8, M12	cable	pigtail connector	cable	pigtail connector
				M12 (length		M8 (length
				100 mm)		100 mm)

N0/N0, N0/NC	NO/NO, NO/NC				
	,,,	NO/NO, NO/NC		N0/N0, N0/NC	
-25 °C +75 °C	-25 °C +80 °C		-25 °C +75 °C		
PBT	PBT	Stainless steel	PBT	Stainless steel	
45 x 40 x 30 mm	M12 x 46 mm	M12 x 55,5 mm	M18 x 57 mm	M18 x 55 mm	
	(PBT)	(Stainless steel)	(PBT)	(Stainless steel)	
• SIL 3	• SIL 3		• SIL 3		
• SIL <sub>CL</sub> 3	• SIL <sub>cL</sub> 3		• SIL <sub>cL</sub> 3		
• PL e	• PL e		• PL e		
TÜV, ETL/CSA, GOST-R	TÜV, ETL/CSA, GOST-R		TÜV, ETL/CSA, GOST-R		
	PBT 45 x 40 x 30 mm • SIL 3 • SIL <sub>CL</sub> 3 • PL e	PBT         PBT           45 x 40 x 30 mm         M12 x 46 mm           (PBT)         (PBT)           • SIL 3         • SIL 3           • SIL 3         • SIL 3           • SIL 3         • SIL 3           • PL e         • PL e	PBT         PBT         Stainless steel           45 x 40 x 30 mm         M12 x 46 mm         M12 x 55,5 mm           (PBT)         (Stainless steel)           • SIL 3         • SIL 3           • SIL 3         • SIL 3           • SIL 3         • SIL 3           • PL e         • PL e	-25 °C +75 °C       -25 °C +80 °C       -25 °C +75 °C         PBT       PBT       Stainless steel       PBT         45 x 40 x 30 mm       M12 x 46 mm       M12 x 55,5 mm       M18 x 57 mm         (PBT)       (Stainless steel)       (PBT)         • SIL 3       • SIL 3       • SIL 3         • SIL 3       • SIL 3       • SIL 3         • PL e       • PL e       • PL e	

\*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 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

671...

#### 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
 elobau sensor select

Sao = 4 mm - 7 mm	Sao = 4 mm - 7 mm	Sao = 7 mm - 10 mm
Sar = 11 mm - 20 mm	Sar = 14 mm - 23 mm	Sar = 18 mm - 21 mm
up to IP6K9K	IP68 10 bar	IP67
cable connec- connec- contact exit tor M8, tion box QUICKON <sup>13</sup> M12, to link Torson sensors connec- tor	cable	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 Stainless steel	Stainless steel	РВТ
M30 x 37 mm M30 x 42 mm (PBT) (Stainless steel)	M30 x 52,8 mm	M30 x 81 mm
• SIL 3	• SIL 3	• SIL 2
• SIL <sub>cL</sub> 3	• SIL <sub>cl</sub> 3	• SIL <sub>CL</sub> 2
• PL e	• PL e	• 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.

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

50 x 75 x 57,5 m

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

NHIU2D hygenic type with approval for food processing industry Emergency-stop push button NHT05D

with operation protective collar

IP69K	ІРб9К	IP65
rotary unlocking left / right	rotary unlocking left / right	rotary unlocking left / right
screw terminal	screw terminal	screw terminal
selectable	selectable	selectable
22,3 mm	22,3 mm	22,3 mm
TÜV, cULus	TÜV, cULus, DGUV Test "Hygiene tested"	TÜV, cULus
• EN 60947-5-1	• EN 60947-5-1	• EN 60947-5-1
• EN 60947-5-5	• EN 60947-5-5	• EN 60947-5-5
• EN 60068	• EN 60068	• EN 60068
• EN ISO 13850	• EN ISO 13850	• EN ISO 13850
	rotary unlocking left / right screw terminal selectable 22,3 mm TÜV, cULus • EN 60947-5-1 • EN 60947-5-5 • EN 60068	rotary unlocking left / rightrotary unlocking left / rightscrew terminalscrew terminalselectableselectable22,3 mm22,3 mmTÜV, cULusTÜV, cULus, DGUV Test "Hygiene tested"• EN 60947-5-1• EN 60947-5-1• EN 60947-5-5• EN 60947-5-5• EN 60068• EN 60068





### 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 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
• EN 60947-5-1	• EN 60947-5-1	• EN 60947-5-1
• EN 60947-5-5	• EN 60947-5-5	• EN 60947-5-5
• EN 60068	• EN 60068	• EN 60068
• EN ISO 13850	• EN ISO 13850	• EN ISO 13850

## 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, mediumsized family business with more than 600 employees, we develop and manufacture sensor technology and operator interface controls for the industrial machine and offhighway 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.



We produce in a carbonneutral manner. Plant 2 in Leutkirch



#### 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.

Tool manufacturing plant in Lichtenhain



### 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

Or select a region on www.elobau.com/Contact/Sales

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.



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