


elobau ®
s e n s o r technology

made in Germany



eloProtect 
Magnetic Safety Sensors

non-contact – magnetic – safe

Magnetically actuated safety sensors for monitoring moving guards



The Bodyguard

eloProtect ^M – the benefits at a glance

Magnetic Safety Sensors

Maximum cost-effectiveness

- Long service life
- Convenient diagnosis via LED and control contact
- Small, robust, compact housing

Maximum safety

- Increased tampering protection
- Screw covers prevent easy removal
- PL e/SIL3 owing to dual-channel design

Maximum variability

- Dual mounting options
- Concealed installation
- High protection classes IP67 and IP6K9K for use in harsh environments
- Complies with the strict hygiene and cleaning requirements of the food and packaging industry



153... series



165... series

eloProtect ^M – the magnetic safety sensor from the eloProtect family

Magnetic Safety Sensors

Your partner for machine safety

elobau was the first manufacturer to establish magnetically operated safety sensors on the market. For over 40 years the company has been developing and producing customised solutions for mechanical engineering and plant construction. With this experience and expertise, elobau is now defining the next step in the development of safety sensors – the eloProtect series with the eloProtect M magnetic safety sensors.

eloProtect M – the new standard

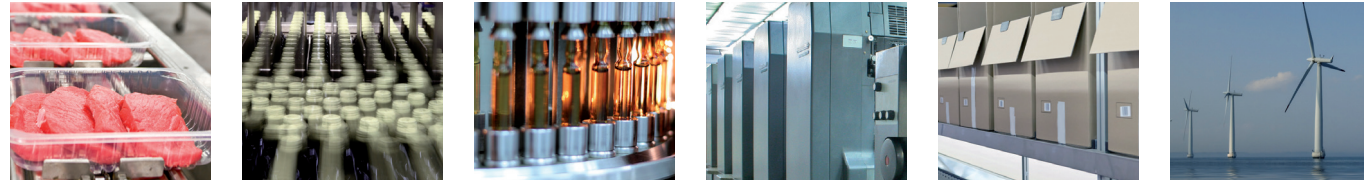
The eloProtect M series of sensors completely redefines the standard for magnetic safety sensors. eloProtect M convinces

with increased sensing distances and offset values for greater variability during mounting and high function stability. The new housing is very robust and resistant to mechanical influences and aggressive media.

The application of eloProtect 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. Use eloProtect M whenever a high level of safety is required or the design of the machine allows concealed installation of the safety sensors.

Applications

eloProtect M is ideally suited for use in many applications in many different areas of industry: food • packaging • beverages • chemicals • pharmaceuticals • clean rooms • printing • paper • logistics • wind energy and hydropower • solar



Resistant to aggressive media, e.g. cleaning agents used in the food industry.



Waterproof housing in compliance with IP67 and IP6K9K.

Cost-effective and reliable solutions – maximum variability for actuation

Actuation options and sensing distances					
Actuation	Sensor	Standard actuator (standard sensing distance)		Enhanced actuator (increased sensing distance)	
		s_{ao}	s_{ar}	s_{ao}	s_{ar}
Front actuation	153MSKo..1. Standard sensor	4 mm	10 mm	8 mm	17 mm
		4 mm	10 mm	8 mm	17 mm
Side actuation	153MSK1..1. Enhanced sensor	4 mm	10 mm	6.5 mm	17 mm
		4 mm	10 mm	6.5 mm	17 mm
Front actuation	165MSKo..1. Standard sensor	5 mm	14 mm	8 mm	18 mm
		5 mm	14 mm	8 mm	18 mm
Side actuation	165MSK1..1. Standard sensor	5 mm	14 mm	8 mm	18 mm
		5 mm	14 mm	8 mm	18 mm

s_{ao} = safeguarded switch-on distance, s_{ar} = safeguarded switch-off distance

Technical data

Series	153...	165...
Protection class	IP67, IP6K9K	
Contact form	N.O./N.O., N.O./N.C.	
Control contact	Optional	
Operating temperature range	-25 °C ... +80 °C	
Housing material	PBT (grey), PC (black)	
Dimensions (H x W x D)	26 x 36 x 13 mm	25 x 88 x 13 mm
Safety-related data*	SIL 3 SIL _{CL} 3 PL e	
Approvals	TÜV, UL/CSA (currently being processed)	

*In combination with the appropriate elobau safety control unit

Ordering information

Sensor options	
Connection	H Connector M12x1, 4-pin, pigtail J* Connector M12x1, 8-pin, pigtail (control contact) K Cable, basic length 1 m
Contact form	A N.O./N.O. B N.O./N.O./LED C N.O./N.O./control contact D N.O./N.O./control contact/LED G N.O./N.C. H N.O./N.C./LED I N.O./N.C./control contact J N.O./N.C./control contact/LED
Contact form	E N.O./N.O. F N.O./N.O./LED K N.O./N.C. L N.O./N.C./LED
Extra cable length	-3 Cable length 3 m -5 Cable length 5 m -10 Cable length 10 m

Sensor	
0	Standard sensing distance
1**	Increased sensing distance
153 MSK . 0 . 1 . .	
165 MSK 0 0 . 1 . .	

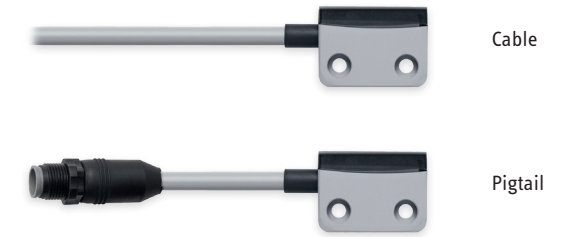
Actuator options	
0	Standard sensing distance
1	Increased sensing distance
2	Standard sensing distance, actuation 90°
3	Increased sensing distance, actuation 90°

Actuator	
153 MBK . 01	
165 MBK . 01	

* Option for front actuation only; ** option for side actuation only

Connectivity

Cable or pigtail – eloProtect M satisfies all requirements with regard to connectivity. Cables and connectors approved for the food industry complement the range of sensors perfectly.



Accessories

- Connector M12x1, 4-pin
- Connector M12x1, 8-pin



Ordering example:

Sensor 153MSK10K1K-5

- 153 series
- Increased sensing distance
- Cable
- N.O./N.C.
- Side actuation
- Cable length 5 m

Actuator 153MBK101

- 153 series
- Increased sensing distance



elobau sensor technology.

The company.

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.

Your global partner.

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