

MACHINE SAFETY SERVICES

OVERVIEW

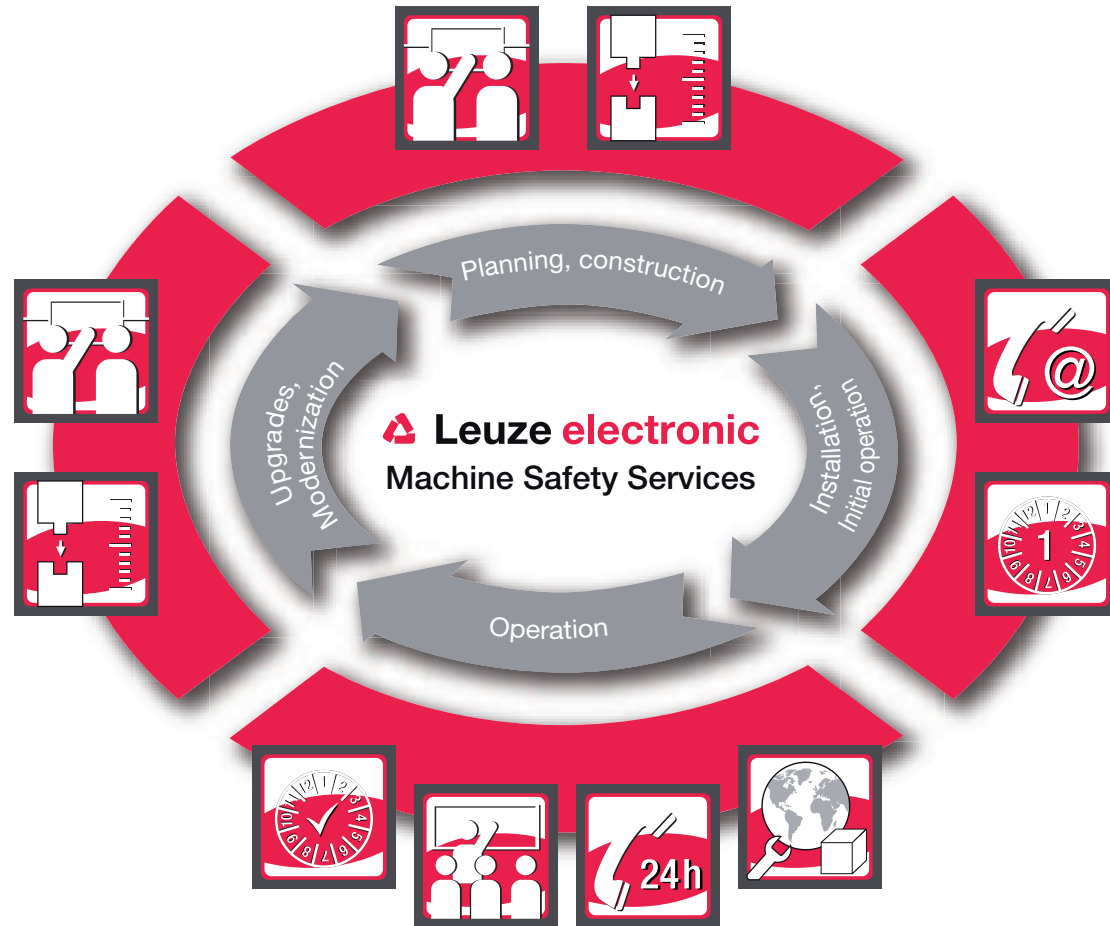
Services selection table

Selection table

# Our services – Your benefits, at a glance

Whether it is Planning and Engineering or Safety at Work Management in Operations, the use of Industrial Safety Technology requires a high degree of responsibility awareness and well-established expertise.

With the "Machine Safety Services" service package, we provide product-related services and support for everything related to machine and plant system safety. The individual services are coordinated with the safety-related application during the machine's lifecycle and can be applied individually or combined as requirements dictate.



	Type of service	Explanation	Features			Page
			Also possible on-site	Free of charge telephone service	Also for competitor products	
	Application advice, safety engineering	Leuze electronic consultancy and advice competence and solutions for economical safety concepts and maximum system productivity	●	●	●	46
	Start-up support, hotline	Quick and competent support with start-up helps you to save time and money	●	●		47
	Safety inspection before the machine's first operation*	Initial inspections help to minimize risks, ensure EU conformity and provide legal certainty	●		●	48
	Regular safety inspections*	Safety inspections help to reduce accident risk and machine downtimes, as well as complying with quality standards	●		●	50
	Stopping time measurements and determining safety distances*	Measurements performed by experts and comprehensibly documented results create a secure basis for the correct positioning of the protective devices	●		●	52
	On-site service, repairs and device replacement service	Fast help in the event of a fault caused by replacement devices of our standard range and on-site from our competent service technicians as required	●			54
	Qualified product training and seminars*	Well trained employees ensure safe and fault-free production	●		●	56

Our service package for the entire lifetime of your machine

\*) This service is currently only offered in Germany. If you are interested in this service outside Germany, please talk to your Leuze electronic sales partner

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[www.leuze.com/safety-services/](http://www.leuze.com/safety-services/)

# MACHINE SAFETY SERVICES



Application advice, safety engineering



Know-how from the experts – an effective cooperation for productive safety



Safety know-how with animations, interactive calculation wizards and a selection of important directives and standards

### Online adviser

Our online adviser, "Safety know-how" at [www.safety-at-work.leuze.de](http://www.safety-at-work.leuze.de) provides a selection of European directives and important standards relating to machine safety and offers assistance with the selection and application of protective devices. Interactive calculation wizards support the person setting up, for example, with the standards-compliant dimensioning of hard guards or the calculation of required safety distances with electro-sensitive protective equipment. The adviser is also available on CD ROM.

### Computer-Aided Engineering

EPLAN 5 and EPLAN P8 product macros are ready for free download for quick and easy integration into the circuit diagrams for many Leuze electronic products.

### Note

The Leuze electronic Safexpert PC software for machinery safety engineering contains a list of hazards in accordance with EN ISO 14121 and supports the process of risk assessment and risk reduction in accordance with EN ISO 12100-1. The software enables an isolated consideration of all hazardous points of operation and life phases of the machine and ensures transparent and comprehensible documentation. For further information and ordering info see chapter Safexpert, page 60.

### Note

The SISTEMA PC software of the German Berufsgenossenschaftlichen Institut für Arbeitsschutz (BGIA) is used for the automatic calculation and evaluation of the functional safety of control systems in accordance with EN ISO 13849-1. It is an ideal complement to Safexpert and can be downloaded as freeware from [www.leuze.com/sistema](http://www.leuze.com/sistema). For more information see chapter SISTEMA, page 68.

Whether it be a new system or a modernization, for the designer the important thing is to integrate the safety technology into the machine in such a way that optimum productivity, ergonomics and cost effectiveness are achieved while incorporating and considering the relevant standards and specifications. Make good use of the long-standing years of application experience of our engineers in hammering out the respectively most optimum safety concept.

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**Start-up support, hotline**



*Our service hotline can clear up a lot of your application questions on the phone*



*An around-the-clock standby service is a foregone conclusion for us*

Deadline pressure – there's often just too little time for putting a protective device into operation. Our competent service hotline can answer a lot of questions at the early phone call stage. On our website at [www.leuze.com](http://www.leuze.com) we support our customers around the clock with a free of charge download option for operating instructions, technical descriptions, parametering/configuration software, data sheets, parameter files and FAQs for fast troubleshooting.

**Contact**

Tel: +49 (0) 8141 5350-111

E-mail: [service.protect@leuze.de](mailto:service.protect@leuze.de)

**24-hr standby service**

For emergencies the telephone standby service of Leuze electronic is available around the clock at +49 (0) 7021/5730

Machine Safety  
Services

Safety  
Engineering  
Software

Safety Laser  
Scanners

Safety Light  
Curtains

Multiple Light  
Beam Safety  
Devices

Safety Sensor  
Sets

Single Light  
Beam Safety  
Devices

AS-Interface  
Safety at Work

PROFIsafe  
Sensors

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## MACHINE SAFETY SERVICES



### Safety inspection before the machine's start-up \*



*We look after safety with machinery and complex plant and systems*

Safety at work is the employer's responsibility and therefore the "boss's business". This principle applies the world over. In Germany the Ordinance on Industrial Safety and Health legally requires that machinery be tested before being put into operation (initial operation), after long idle periods, after changes and modifications and at regular intervals. Regardless of this, regular safety inspections guarantee compliance with safety and quality standards, serve as precautionary maintenance measures and consequently help to reduce undesirable machine downtimes to a minimum. Individual service contracts are possible at all times.

#### Benefits

- **EU conformity and legal certainty with proof that relevant safety and quality standards are met**
- **Proven-in-practice solution proposals for the rapid removal of safety deficiencies**
- **Comprehensible and well-documented test results in accordance with DIN ISO 9001:2000**
- **Standards-specific test protocol**
- **Accident risk and machine downtime minimization**
- **Ensuring machine productivity and availability with regular inspections**

\*) This service is currently only offered in Germany. If you are interested in this service outside Germany, please talk to your Leuze electronic sales partner

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## Safety inspection before the machine's start-up \*

### Scope of safety inspections

- Recording the identification of machine and protective device
- Testing the technically-compliant installation of the protective device (reaching under, reaching over, etc.)
- Stopping time measurement (optional) and testing the safety distance from the protective device to the point of operation
- Testing the circuit diagrams for safe switching-related integration of the protective device into the machine control system
- Testing all functions of the protective device and the safe interaction with the machine control system
- Proven-in-practice assistance with problem analysis and presentation of solutions
- Documentation of all test results in a test log and attaching the inspection sticker
- Log in pdf format
- Safety inspections of other manufacturers' products on request

### Safety inspection before start-up

Art. no.	Description
991004	Safety inspection
991003	Traveling expenses flat-rate with trip planning or service contract (including all travel costs within Germany)
991011	Traveling expenses flat-rate without trip planning, one-way (including all travel costs within Germany)

\*) This service is currently only offered in Germany. If you are interested in this service outside Germany, please talk to your Leuze electronic sales partner

[www.leuze.com/safety-services/](http://www.leuze.com/safety-services/)

## MACHINE SAFETY SERVICES



### Regular safety inspections \*



In Germany the Ordinance on Industrial Safety and Health legally requires that machinery be tested before being put into operation (initial operation), after long idle periods, after changes and modifications and at regular intervals. Regardless of the respective legal requirements, regular safety inspections guarantee compliance with safety and quality standards, serve as precautionary maintenance measures and consequently help to reduce undesirable machine downtimes to a minimum.

*Regular inspections guarantee technical safety and also increase your company's legal certainty*

#### Benefits

- **EU conformity and legal certainty with proof that relevant safety and quality standards are met**
- **Proven-in-practice solution proposals for the rapid removal of safety deficiencies**
- **Comprehensible and well-documented test results in accordance with DIN ISO 9001:2000**
- **Standards-specific test protocol**
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## Regular safety inspections \*

### Scope of safety inspections

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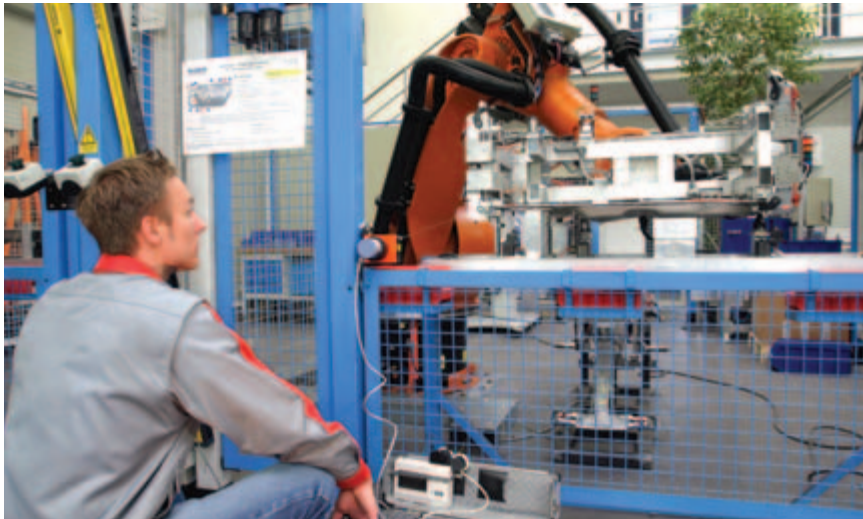
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## MACHINE SAFETY SERVICES

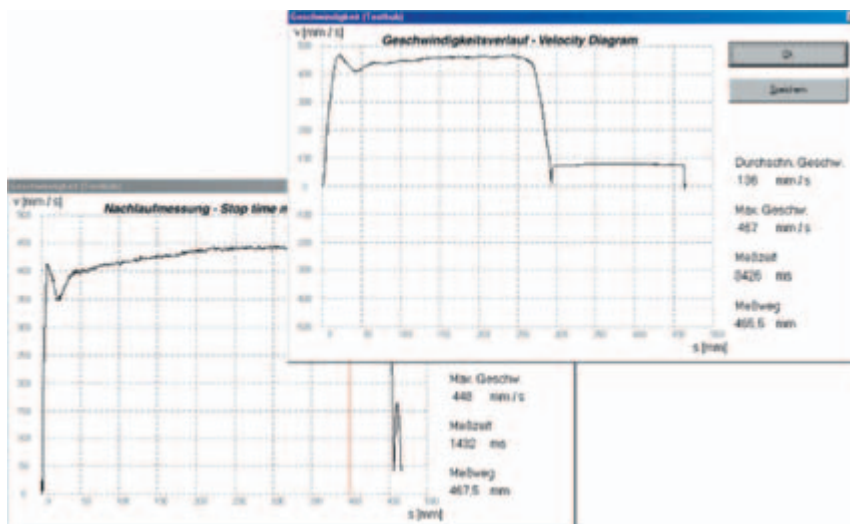


### Stopping time measurements and determining safety distances \*



*Our stopping time measurements are an important basis for the correct positioning of protective devices*

Only with a sufficiently dimensioned safety distance that corresponds with the stopping time of the machine can it be guaranteed that the dangerous movement will stop before the person reaches the point of operation. Wear and tear can, however, extend the stopping times of machines. The causes for this can, for example, be a defective brake cylinder or a faulty spark absorber. Stopping the dangerous movement in good time and therefore reliable protection by the protective device is no longer guaranteed. Stopping time measurements are therefore, in our opinion, an extremely important part of a properly carried out safety inspection.



*The results of measurements and calculations can also be evaluated graphically*

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# STOPPING TIME MEASUREMENTS

## Stopping time measurements and determining safety distances \*

### Benefits

- Measurements performed by experts with calibrated measurement devices provide a safe and sound basis for positioning the protective device
- Comprehensible and well-documented test results in accordance with DIN ISO 9001:2000 and optional graphic analysis of the braking motion
- Early detection of wear and tear in brake components with periodical inspections

### Scope of stopping time measurements

- Standards-compliant performance of 10 measurements per machine
- Graphic evaluation of the brake behavior on request
- Stop activation with "Autohand" without electrical intervention in the machine control system
- Use of appropriate measurement instruments for the respective machine type: Rotary encoder for rotation movements (e.g. rotary indexing table) and rope length transmitter for linear movements
- State-of-the-art calibrated measurement devices; documented test results in accordance with DIN ISO 9001:2000

### Stopping time measurement and determining the safety distance without travel time and car expenses

Art. no.	Description
991007	Stopping time measurement
991008	Stopping time measurement extended (e.g. multiple movements, rotary indexing table)
991009	Flat-rate for waiting times per system (e.g. absence of support by operating personnel)

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## MACHINE SAFETY SERVICES



**On-site service, repairs and device replacement service**



*We provide devices on loan to secure our customer's productivity*

In the event of a functional fault, speedy help is the order of the day. Leuze electronic's device swap-out service enables equipment to be swiftly replaced. As part of our 12 month guarantee we provide a free of charge replacement device after the serial number has been provided. Within Germany the delivery of a replacement device from our standard range generally takes 1 to 2 working days. Overseas the corresponding transport times are added to this. If a device failure occurs after the end of the guarantee period, we provide a device on loan free of charge for the duration of the repair period (where available), and consequently ensure the necessary on-site safety.



*Our technicians also provide rapid help, e.g. with fault searches and removals*

### **Customized on-site support**

if necessary, our technicians will assist with the search for and removal of faults on-site. In this case please contact our service hotline at +49 (0) 8141 5350-111 or the Leuze electronic sales partner responsible for you. For emergencies the telephone standby service of Leuze electronic is available around the clock at +49 (0) 7021 5730. Repairs are competently carried out in our service center up to component level.

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## On-site service, repairs and device replacement service

### Benefits

- Fast help around the world with the Leuze electronic device swap-out service
- Fault search and removal on-site
- Competent device repairs and maintenance
- 24 hr telephone standby service for emergencies

### On-site service in Germany and Europe

Art. no.	Description
991001	Working hours
991006	Travel time
991000	Car expenses
991010	Car expenses abroad (alternative: Flight costs according to expenditure)
991012	Accommodation flat-rate

[www.leuze.com/safety-services/](http://www.leuze.com/safety-services/)

## MACHINE SAFETY SERVICES



### Qualified product training and seminars \*



A tailor-made training program provided by us helps the interested party in selecting the course they need. In addition to the various product training courses for specialists for the respective products, we also offer seminars on the Machinery Directive, CE conformity assessment and practice-related safety technology. We are also happy to carry out training on-site and in English, and will submit an appropriate offer on request. You will find our training program in the support area on our website at [www.leuze.com](http://www.leuze.com). Should this not cover your training requirements, with the appropriate number of participants, we will be happy to combine the relevant training content according to your wishes. We're looking forward to getting to know you!

*Get into top shape in safety technology with our training courses and seminars*

### Benefits

- **Efficient and specialist use of Leuze electronic protective devices by qualified employees**
- **High level of system availability by preventing faulty operation and application errors**
- **Small cause – big consequences. Optimum product knowledge helps to detect application problems quickly and prevent production downtimes**
- **Direct dialog between our specialists and your employees for experience exchanges, application tips and problem-solving**
- **A certificate of completion attests the training as qualified personnel and enables you to perform the maintenance and testing of the relevant Leuze electronic protective device within your own area of responsibility**

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## Training courses and seminars

Art. no.	Course no.	Description
991031	502	COMPACT <i>plus</i> Safety Light Curtains and Multiple Light Beam Safety Devices (2 days)*
991032	503	ROTOSCAN RS4 Safety Laser Scanners (2 days)*
991033	504	SOLID-2 Safety Light Curtains, MLD 300 Multiple Light Beam Safety Devices, configurable MSI Safety Relays (2 days)*
991035	505	AS-i Safety, Safe Bus System (1 1/2 days)*
991037	506	SOLID-4 Safety Light Curtains, MLD 500 Multiple Light Beam Safety Devices, configurable MSI Safety Relays (2 days)*
991038	507	Safexpert - Software for Safety Engineering of Machines and Systems, User Training (2 days)*

\*) Incl. training papers, drinks and lunch during the training. The costs for travel and accommodation are paid by the participant.

For information on workshops and seminars go to [www.leuze.de/seminare](http://www.leuze.de/seminare)