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the **sensor** people

## ROTOSCAN RS4 Safety Laser Scanner

The flexible multitalent for  
personnel protection and  
versatile measuring tasks



# Safety Laser Scanner

## ROTOSCAN RS4

Versatile use. Individual configuration.  
Easy integration.

Looking for safety that you won't trip over? The ROTOSCAN RS4 Safety Laser Scanner can be seamlessly integrated into your processes. Any kind of protective field contours, variable resolution and individual configuration of all operating parameters make the ROTOSCAN RS4 a flexible safety building block, perfectly harmonized with your application.

3 ranges,  
3 function packages,  
2 safety buses – and all completely compatible!

Technical data	RS4-2E RS4-2M	RS4-4 RS4-4E RS4-4M	RS4-6E RS4-6M
Range	2,15 m	4 m	6,25 m
Function packages	Basic MotionMonitoring	Basic Extended MotionMonitoring	Extended MotionMonitoring
Variants with safety bus interface	–	AS-i Safety at Work PROFIBUS DP PROFI-safe	AS-i Safety at Work PROFIBUS DP PROFI-safe



# ROTOSCAN RS4 – a product family, which you cannot pass.

## Function package

### Basic

for danger zone guarding

- Certified in accordance with the latest international safety standards  
Type 3 in acc. with EN IEC 61496-1/3, SIL 2 in acc. with IEC 61508, PL d in acc. with EN ISO 13849.
- Guarding all danger zones  
70 mm and 150 mm resolution.
- Four field pairs, protective and warning field – switchover during operation  
2.15 m, 4 m and 6.25 m ranges with 70 mm resolution; monitoring area/scanning angle: 190°.
- Any kind of protective/warning field configurations  
Every shape or structure and various distances can be freely programmed.
- Easy to install  
Low installation costs; ideal for use on mobile and stationary applications.
- Compact design and economical operation  
Compact dimensions and low power consumption.
- Open data interface  
RS232 and RS422 with variable data rates for complex measuring and control tasks.

## Function package

### Extended

for vertical point of operation and access guarding

- Vertical point of operation guarding  
Variable 30 mm and 40 mm resolution with reference boundary monitoring.
- Vertical access guarding  
150 mm resolution with reference boundary monitoring.
- High functionality and flexibility  
8 switchover protective/warning field pairs.
- Bus technology for easy integration into your production systems  
Safety Laser Scanners with interfaces for AS-i Safety and PROFI-safe.

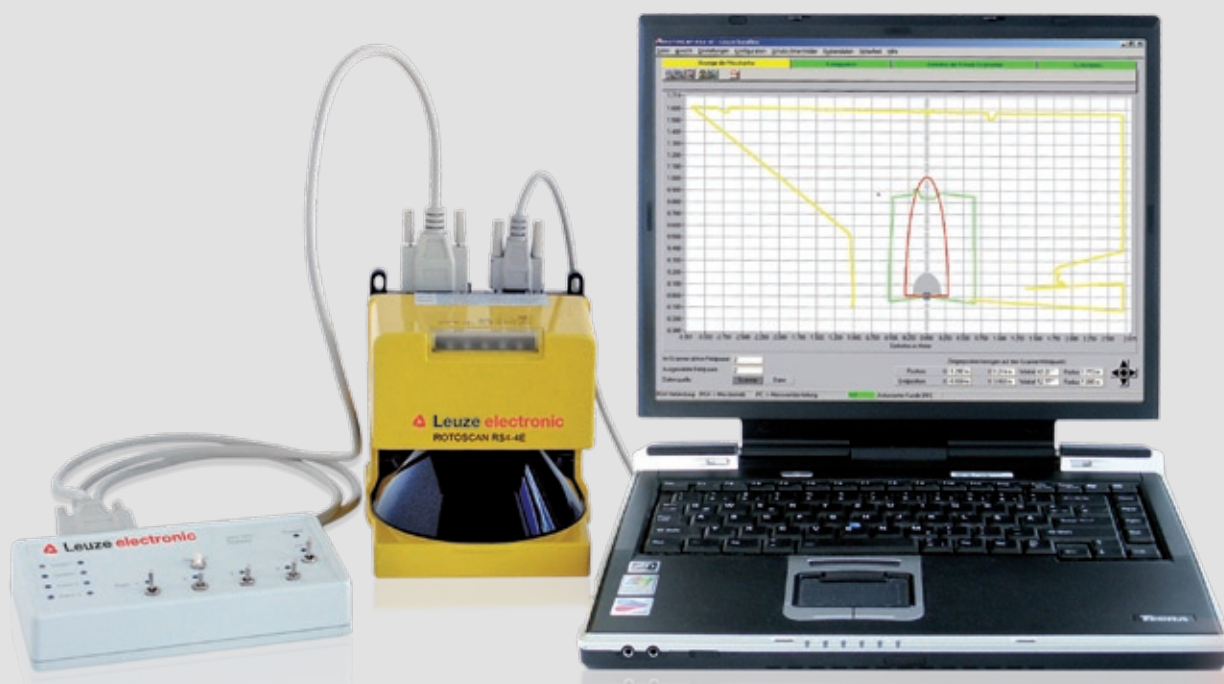
## Function package **MotionMonitoring** for travel path guarding on mobile systems

- Speed monitoring for the respective selected protective field  
Automatic correction, warning and maximum speed monitoring.
- Convenient and efficient protective field design  
Automatic calculation of rectangular protective fields for transfer trolleys and verification of the calculated protective fields by the Safety Laser Scanner.
- Robust measuring technology for efficient operation and process stability  
Speed measurement including output data and reliable distance measurements, which cannot be disturbed by people passing by.





With the easy to use RS4soft configuration and diagnostics software you can just graphically adjust all device parameters and the protective field contours to both local conditions and the required safety distances. You can therefore set up various protective fields for a production process, which are then activated process-related – as easy as winking!

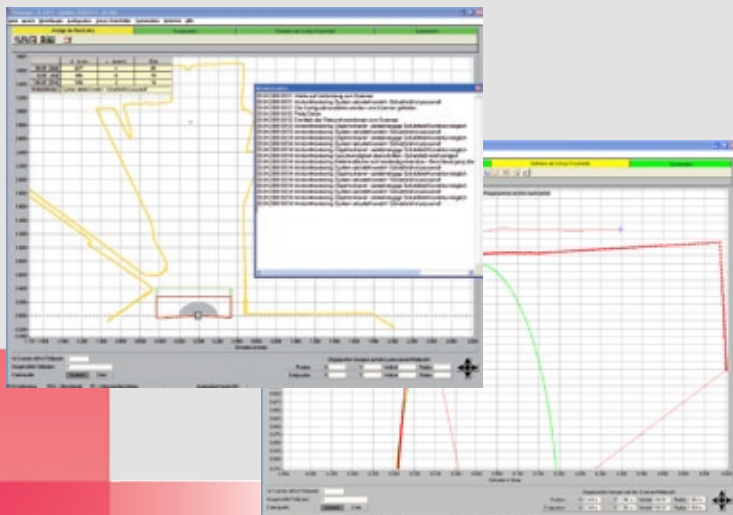


## Configuration with **a few clicks**, diagnostics **so easy**.

The flexible usage options of the ROTOSCAN RS4 Safety Laser Scanners are provided by intelligent software that provides the user optimum operating comfort. All Laser Scanner parameter data and characteristics can be specified and clearly visualized via the RS4soft configuration and diagnostics software.

You can very conveniently adjust the configuration of your ROTOSCAN RS4 to your special requirements and the conditions of the machine or system using the self-explanatory dialog boxes.

- User guide per wizard
- Clear menu structure for individual configurations
- Existing fields modified with a few clicks
- Easy definition of the field pair switchover sequence per matrix
- Flexible definition of Laser Scanner starting and operation behavior
- Automatic display optimization of measured contours
- Runs under Microsoft Windows® NT, 2000 and XP



### Configure – just once!

All ROTOSCAN RS4 series originate in one single device family. The big bonus here – practically unlimited compatibility in application.

For you this means: easier storage and faster device swap-out with the intelligent, universal ConfigPlug device plug. After a Laser Scanner's first configuration all settings remain permanently in the ConfigPlug. The saved configuration is already transferred to the new device with the swap-out and the system can continue to run – not a problem. Safety technology has to be this easy today.

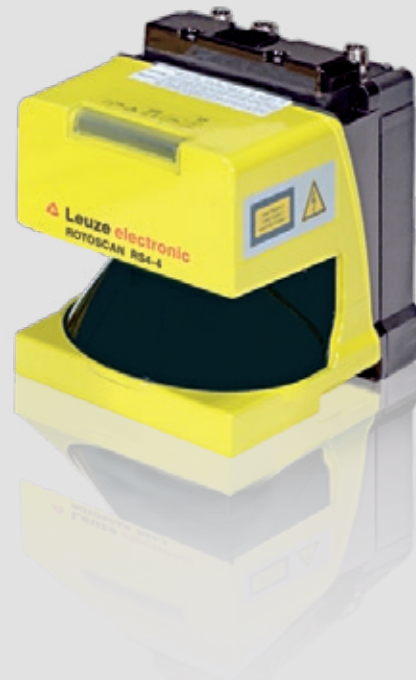


## The **multitalent**, that **adjusts** to your applications and requirements.

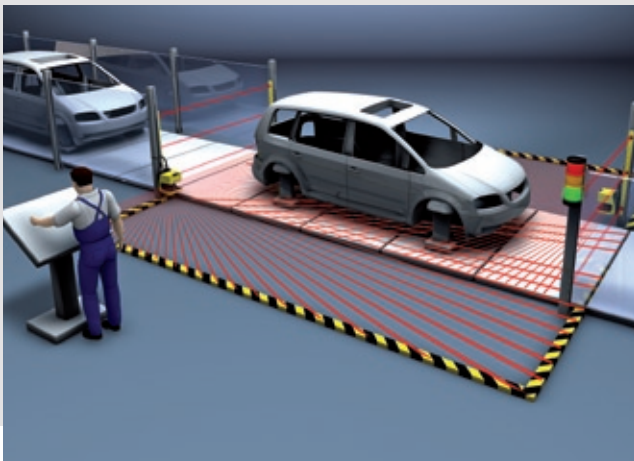
The ROTOSCAN RS4 Safety Laser Scanner reliably detects body, leg, arm and hand. In diverse applications with just one single RS4 you can monitor both complex and alternating safety areas – flexibly and completely. There are practically no space, power supply or flexibility restrictions here.

And you can also choose how you want to install the ROTOSCAN RS4. From its installation position the Laser Scanner guards your systems and machines over a wide and configurable area.

Whether stationary or mobile, this light and low consumption device is the perfect choice for so many uses.



Guarding danger zones on conveyor belts with individual and alternating protective fields.



Guarding danger zones in expansive machinery systems for complete safety – even at points that are not visible.



## Proven in diverse applications – time and again.

Danger zone, point of operation and access guarding: ROTOSCAN RS4 Safety Laser Scanners can be used effectively and flexibly in every area of personnel protection.

With its switchover field pairs, protective and warning field combination, and the freely configurable and individual structure of these fields, the ROTOSCAN RS4 can be universally adapted to your system and the respective task.

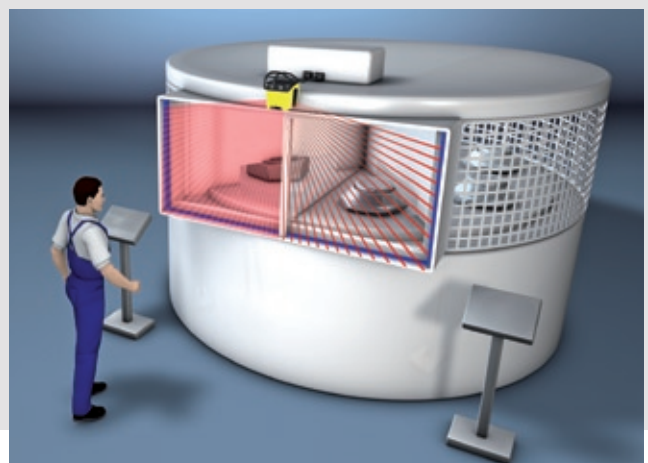
Stationary and mobile systems can be optimally monitored with the numerous configurable operating parameters, and therefore guarantee reliable personnel safety in every situation.

The ROTOSCAN RS4 also performs numerous other measuring tasks for controlling your production or transport processes.

Right side: Simple access guarding setup with complex processing and handling centers.

Left side, below: Danger zone guarding on stationary machines with switchover protective/warning field combinations.

Right side, below: Point of operation guarding with configuration options for efficient cycle times on revolving transfer tables.







**Safety Laser Scanner Family** for special applications and the most demanding requirements.

Safety Laser Scanners for transfer trolley operation with MotionMonitoring function.

In addition to its function as a safety device for personnel protection, the ROTOSCAN RS4-4M, which is ideal for mobile applications in particular, also measures distances for positioning and speeds for MotionMonitoring. The protective and warning fields are changed over according to speed by the control unit, and the Laser Scanner monitors the transfer trolley movements. The “robust” measuring technology guarantees the highest possible reliability, even if the measuring field is temporarily disturbed.

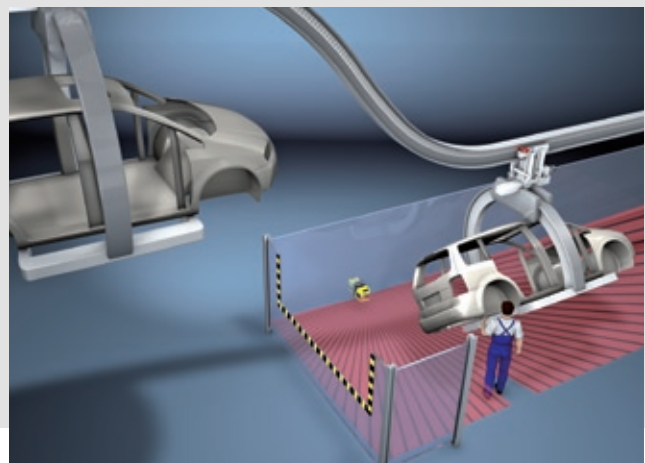
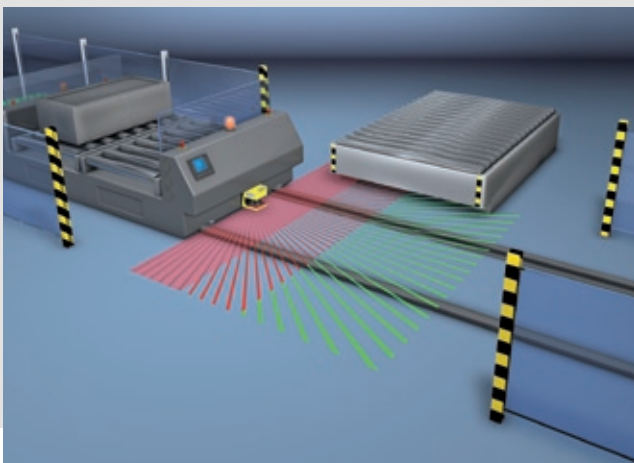
Safety Laser Scanners with various operation ranges – absolutely as required.

The Safety Laser Scanner Family ROTOSCAN RS4 boasts of ranges 2.15 m, 4 m and 6.25 m. These devices are therefore predestined for so many applications in all areas – from small ranges through to demanding applications where large ranges are a must.

The Scanners can be swapped out for each other at any time as required, completely in accordance with your needs. This is the crucial advantage of a 100% compatible device family!

Laser Scanner used for determining position and monitoring protective and warning fields according to speed (MotionMonitoring).

When large ranges are required with the protective/ warning field: ROTOSCAN RS4-6E Safety Laser Scanners.



## **Optoelectronic Sensors**

Cubic Series  
Cylindrical Sensors, Mini Sensors, Fibre Optic Amplifiers  
Measuring Sensors  
Special Sensors  
Light Curtains  
Forked Sensors  
Double Sheet Monitoring, Splice Detection  
Accessories

## **Identification Systems**

### **Data Transmission Systems**

### **Distance Measurement**

Barcode Readers  
RF-IDent-System  
Modular Interfacing Units  
Industrial Image Processing Systems  
Optical Data Transmission Systems  
Optical Distance Measurement/Positioning  
Hand-Held Readers

## **Safety Sensors**

### **Safety Systems**

### **Safety Services**

Safety Laser Scanners  
Safety Light Curtains  
Transceiver and Multiple Light Beam Safety Devices  
Single Light Beam Safety Devices  
AS-i-Safety Product Range  
Safety Sensor Technology for PROFIBUS DP  
Safety Switches and Safety Locking Devices  
Safety Relays and Safety Interfaces  
Sensor Accessories and Signal Devices  
Safety Engineering Software  
Machine Safety Services

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