

# SIMATIC FS600 laser scanners

Everything in view, all around

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SIMATIC Sensors

**SIEMENS**

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## Everything in view, all around

The SIMATIC FS600 laser scanners operate in a scanning angle of 190° and over a distance of up to 6.25 m (up to 15 m in applications without relevance for safety). The laser scanner reliably detects every object and person in this area.

And it works so simply: The distance sensor emits light pulses at regular intervals. If they hit an obstruction, the sensor receives the reflected light and evaluates it. If the obstruction is within the predefined area to be protected, a stop function is triggered.

With up to 8 programmable protective field pairs that can be selected during operation, our laser scanners can be optimally adapted to any application – on machines, production robots, conveyor systems or vehicles.

Different variants support optimal integration in the automation system: Whether conventionally in the safety circuit, over PROFIBUS with PROFIsafe, or over AS-Interface with ASIsafe.

### Standard applications

- Vertical as well as horizontal danger zone protection with multiple protective fields
- Safeguarding of hazard points (hand and arm protection)
- Route monitoring for automatic guided vehicle systems
- Collision protection for shifting units
- Area protection and access control

### Certifications:

- Cat. 3 according to EN 954-1
- Type 3 IEC/EN 61496-1,-3
- SIL 2 according to EN 61508

### Highlights

- Vertical as well as horizontal protection
- Scanning angle of 190°
- Warning field range of 15 m
- Protective field range of up to 6.25 m
- Up to 8 different protective fields
- Field pair switchover is possible during operation
- Velocity-dependent protective zone switchover without additional incremental encoder
- Parameterization using LS4Soft
  - Automatic configuration when replacing the device by means of the Config-Plug
  - Finely granular protective zone pair parameterization supports flexible adaptation to the environment
- Variants with standard connection, AS-Interface with ASIsafe and PROFIBUS with PROFIsafe

Properties/ variants	SIMATIC FS620	SIMATIC FS660			SIMATIC FS670		
Protective field ranges	4	2.15	4	6.25	2.15	4	6,25
Resolution in mm	70/150	70/150	30-50/70/150	30-50/70/150	70/150	30-50/70/150	30-50/70/150
Number of selectable field pairs	4	4	8	8	4	8	8
Vertical applications		●	●	●	●	●	●
Horizontal applications	●	●	●	●	●	●	●
Motion monitoring					●	●	●
AS-i/ASIsafe interface	●		●	●		●	●
PROFIBUS/PROFIsafe interface	●		●	●		●	●

## Protection of small protection zones



The SIMATIC FS660 SR (Short Range) laser scanner has been designed for safety engineering applications in small protection zones of up to 2.15 m. Based on the functionality of the FS660I devices with horizontal and vertical protection, the laser scanner also impresses customers with its attractive price.

Applications:

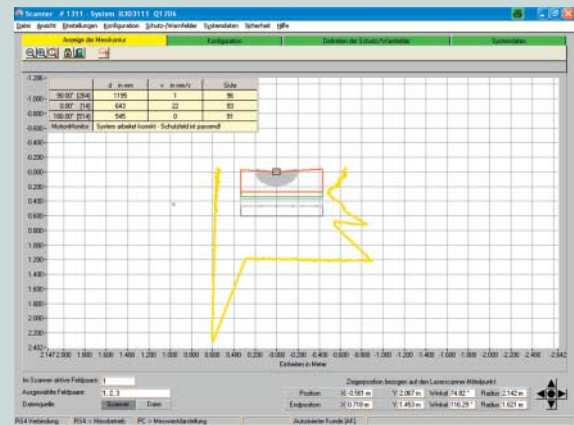
- Automatic guided vehicle systems with low speeds and short braking distances (usually 1.5 to 2 m)
- Stationary use for access protection at low entrances, e.g. at robot cells, or for area protection on punches or presses

## Motion monitoring for transfer trolley

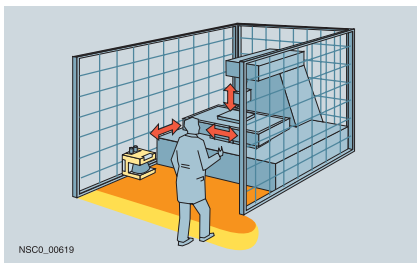
The SIMATIC FS670 laser scanners for Motion Monitoring have been specially designed for applications with transfer trolley. In addition to the standard safety functions for operator protection, it reliably calculates distances for positioning as well as velocities. It monitors up to 6 different velocities and will automatically correct the selected protective field if necessary. No additional incremental encoders are required due to the integrated velocity calculation - the safety laser scanner and the standard PLC together execute all the functions of velocity-dependent monitoring of the protective field.

## Highlights SIMATIC FS670

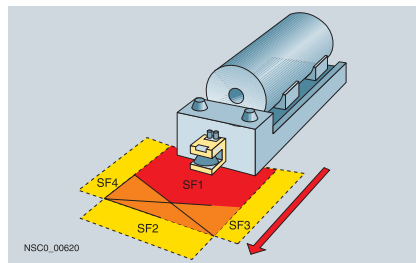
- Distance measurement for positioning
- Eight programmable and selectable protective zones with different ranges of 2.15, 4 and 6.25 m
- Resolution selectable from 30 to 150 mm
- Velocity measurement for the selected protective field and, if necessary, correction, warning as well as monitoring of the maximum velocity
- Automatic calculation of the protective fields for motion monitoring with LS4Soft software
- Maximum reliability even in case of temporary disturbances in the measuring zone
- Up to 6 different velocities can be monitored
- A fixed reference value is required (e.g. a wall)
- No need for additional incremental encoders due to integral velocity monitoring
- No additional safety PLC required for protective field switchover



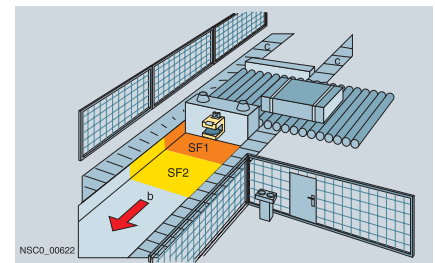
software LS4Soft



Horizontal danger zone protection



Route monitoring for automatic guided vehicle systems



Collision protection for shifting units

## Further information

Product information for SIMATIC Sensors:

[www.siemens.com/simatic-sensors](http://www.siemens.com/simatic-sensors)

Reference projects for SIMATIC Sensors:

[www.siemens.com/simatic-sensors/references](http://www.siemens.com/simatic-sensors/references)

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