

**reis**

# TECHNOLOGY LASERSPY®



# ACTIVE SENSOR TECHNOLOGY FOR LASER SAFETY

New developments in laser beam sources offer continuously improving beam quality and ever higher power. A decisive factor for the safe enclosure of laser systems in the event of a malfunction is the duration of exposure the walls can withstand. The requirements of the IEC/EN 60825-4 standard usually cannot be fulfilled by conventional safety systems and rarely allow for cost-effective implementation with passive elements. The solution is a laser protection wall actively monitored by electronic means. This is why Reis Robotics has developed a TÜV-certified, active laser safety sensor. The LaserSpy® detects a beam malfunction within milliseconds and trips the safety circuit of the laser system. Alternatively the EMERGENCY STOP circuit is interrupted. Laser safety is thus ensured for the system and the operator at all times

The LaserSpy® is an optical sensor which monitors the light-proof space inside a protective double-panel wall. If the first panel is penetrated by a laser beam, the highly sensitive LaserSpy® sensor measures the entering beam, opens the safety circuit and switches off the beam source via the Emergency Off circuit before the outer panel is damaged.

## PRECONDITIONS

- Double-walled booth design without filler materials or struts
- Minimum distance of 35 mm between both outer panels of the double-panel wall
- Light-proof structure of the wall elements to prevent spurious signals
- Simple preparation for installation using a drilling template; fastening by means of self-tapping screws without having to open the electronics housing

## YOUR ADVANTAGES

- Active intervention into the safety circuit of the laser source – Emergency Off function
- Self-monitoring
- Certified in accordance with EN ISO 13849-1:2015, IEC 61508:2010
- For all top-quality laser beams in the visible and near-infrared wavelength range (400 – 1,100nm or 820 – 1,100 nm) regardless of the installed laser power
- Protection class IP 65
- Monitoring radius 3,500 mm
- Simple installation
- Quick retrofit possible in existing systems

Reis Robotics offers you many different variants, **adapted to your requirements.**



„Activate“ your laser protection wall and quickly and easily upgrade your system **for improved laser performance with the LaserSpy®.**



## EASY INTEGRATION

Installation of the LaserSpy® sensors in a double-walled booth allows for full protection using only a few elements. Standard booth concepts can be implemented quickly and simply.

## NEW

The Laser Spy® Manager (SPY-M) is a control and interface unit for use with LaserSpy® 4.0 sensors and allows central monitoring and visualization of the status of up to 40 LaserSpy® 4.0 sensors on up to four chains of 10 sensors each.

The complete solution from a single source includes the assembly accessories – with the appropriate tools if desired – for fast and optimum installation.

We are pleased to offer you the following accessories:

- Pre-assembled cable with various connections
- Terminating connector
- LaserSpy® tester
- Manipulation protection

EN ISO 13849-1:2015	Category 4/PL e with a service life of 15 years PFHd = 2,79e-9/h standard sensor PFHd = 3,05e-9/h other sensors
EN 61508:2010	SIL 3 with a service life of 15 years hardware fault tolerance





For further information please contact us at [laser@reisrobotics.com](mailto:laser@reisrobotics.com)

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