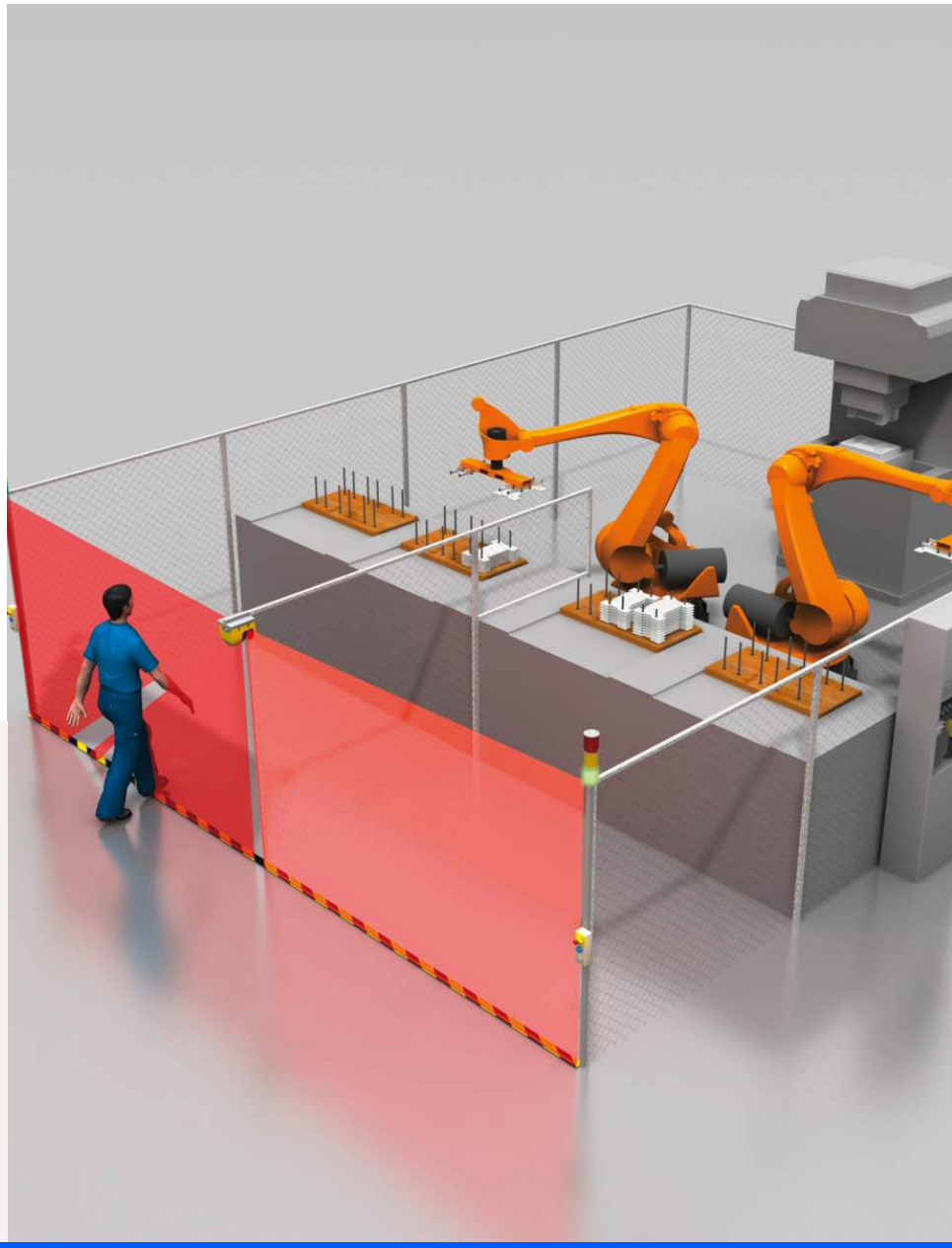
SICK.COM



APPLICATION NOTE

SAFETY SOLUTIONS FOR STATIONARY ROBOTICS

Maxiumum safety coverage for your stationary robotics applications

SICK Sensor Intelligence

APPLICATION NOTE

MAXIMUM SAFETY COVERAGE

Collaborative robots deliver greater flexibility, efficiency, and safety by taking on repetitive or hazardous tasks while allowing people to focus on higher-value work. Whether fully collaborative or cooperative, these robots must operate safely alongside workers—often without restrictive cages—to achieve maximum productivity.

This requires reliable safety sensors that protect people without limiting robot performance. In space-constrained workcells, traditional safety solutions can be difficult to install. As the world's lowest-profile safety laser scanner, SICK's nanoScan3 makes it possible to implement robust safety coverage even in tight spaces, enabling stationary robots to operate efficiently with maximum protection in place.

SAFETY IN A SMALL PACKAGE: NANOSCAN3

→ ULTRA-COMPACT, LOW-PROFILE DESIGN

The nanoScan3 is an ultra-compact safety laser scanner designed for installations where space is at a premium. With a height of just over three inches—small enough to fit under a pallet—it enables high-performance machine safeguarding in applications that previously offered little or no room for safety sensors.

→ CONTROLLER-FREE WITH LOCAL I/O

Operating via local I/O, the nanoScan3 eliminates the need for a separate safety controller or PLC, reducing system complexity, installation time, and panel space. Dual OSSD outputs support two independent protective fields, enabling functions such as robot speed reduction in one zone and a full stop in another.

→ FLEXIBLE MONITORING

Direct static inputs allow the nanoScan3 to detect robot motion and direction, enabling automatic switching between monitoring cases. This flexibility supports dynamic safety strategies for stationary robots as they turn or change orientation during operation.

→ RELIABLE DETECTION

Built on SICK's proven microScan3 platform, the nanoScan3 uses patented safeHDDM® technology to deliver reliable detection even in challenging environments. It resists interference from dust, contamination, and ambient light, minimizing false trips and maximizing uptime.

→ WIDE COVERAGE, SIMPLE INSTALLATION

The nanoScan3 offers up to 128 freely configurable fields and monitoring cases within a 3-meter protective range and a wide 275-degree scanning angle. Standard M12 connectivity makes installation quick and straightforward, giving manufacturers a powerful, space-saving safety solution for stationary robot applications.

Learn more
sick.com/nanoscan3 →