



Multitalent for factory automation: the compact LMS100 Laser Measurement Sys- tem

Waldkirch, Innovation N° 2 2009 – The new LMS100 Laser Measurement System from SICK is compact and powerful – and thus offers versatile use in factory automation. This light, power-saving device is characterised by a high detection capability, integrated distance measurement, dynamically switching monitored fields, and a variety of interfaces. The LMS100 is available in two versions: with an enclosure rating of IP65 for indoor use, or as the IP67 LMS111 with integrated heating and fog correction for outdoor applications.

The LMS100 is no conventional laser measurement system. The sensor offers a scanning angle of 270°, angular resolution of 0.25°, scanning frequencies of up to 50 Hz, and ranges of 20 m or 18 m on jet-black objects (with a typical reflectivity of only 10%). The geometries of the up to ten monitored fields can be defined as desired (and subsequently adapted) via the menu-guided software dialogue of the integrated parameterisation and evaluation software. Multi-pulse evaluation of measurement points gives object detection a hitherto impossible stability. The device is small, requires little electricity, and offers a voltage input of 9 - 30 V so that it is also ideal for mobile applications



on vehicles, service robots and building security solutions. The additional software module of the LMS111 guarantees reliable object detection even in rain, snow or fog.

Ethernet and a variety of I/O options

Connection to an automation or monitoring system can take place via Ethernet, RS 232 and a frontal parameterisation interface. The LMS100 offers four inputs, two of which can be used as encoder inputs, as well as three digital switching outputs, while further switching outputs can be formed via external CAN modules.

Suitable for fixed and mobile automation applications

Given its performance features, the LMS100 offers interesting solution potentials in many areas: collision prevention and navigational support on vehicles in container ports, in intralogistics and on service robots; traffic-related applications on signalling systems and toll stations; positioning and path guidance on automated agricultural vehicles; monitoring shelf fronts; checking pallets are empty; or as a control system for picking processes.

Also ideal for building security

In the area of building protection and security tasks, laser measurement technology often represents a sensible supplement to camera monitoring, and is increasingly consid

ered an economic and technical alternative. Another system, the LMS120, with its volt-free relay output, is particularly suitable for such tasks inside and outside buildings.

The LMS100 series perfectly complements SICK's portfolio of measuring laser scanners for automation, identification, security and monitoring.



For decades, SICK has been one of the most innovative companies in the sensor sector. The latest technological knowledge and processes are implemented in innovative products and system solutions. They position SICK as a technology and market leader in the customer segments of factory, logistics and process automation.

More than 50 innovations in sensor and control solutions are planned for 2009. SICK will launch a new product each week as part of its "SICK Innovation Marathon 2009". All innovations – from No. 1 to No. 52 – are more than just a product: they solve tasks intelligently, efficiently and precisely. And create unbeatable customer advantages.