

Ultrasonic sensors make smart transport systems safe

Mayser, the specialist for safety technology, equips AGILOX automated guided vehicles with cutting-edge ultrasonic sensor technology to create a unique selling proposition with regard to safety and efficiency.

A new generation of AGVs from the Austrian company AGILOX Services GmbH is revolutionising logistics: The Intelligent Guided Vehicle (IGV) AGILOX is an agile, autonomous plug & play transport system that has achieved international success with new concepts for spatial navigation and swarm intelligence. Such high-tech transport systems create tremendous advantages in logistics, because they save space and reduce personnel costs. Reliable prevention of collisions between people and objects, however, requires cutting-edge, certified sensor technologies.

Little space for advanced technology

An especially challenging task in this development was to protect the blind zone of the IGV AGILOX from the fork arms in the phase immediately prior to entering the pallet. Since the installation space for sensors in this area is very small, it was difficult to find suitable sensors. In the end, the Austrian sales partner Urmet Dialog pointed AGILOX Services toward the USi® ultrasonic sensors from Mayser GmbH & Co. KG. Domiciled in Ulm and Lindenberg, the company manufactures products and system solutions for safety technology, foam technology and moulded components at six locations in Europe, Asia and the USA.

Complex echo process ensures reliable object detection

Mayser developed its USi® ultrasonic sensors especially for non-touch monitoring of three-dimensional spaces. A complex process consisting of an

echo propagation time measurement and an echo amplitude measurement allows both distance measurements and non-touch object detection by the sensor. The USi® detects objects made of diverse materials and is insensitive to contamination, extraneous sound, air flows and moisture. It also features very compact, freely positionable transducers that can be positioned apart from the electronic system for increased versatility of installation – even in very tight spaces. A special new software routine provides for added safety by suppressing mutual interference if two independent transport systems meet each other.

High safety standards

Since the areas of application for the IGV AGILOX also include work areas where people move about, the USi® Safety with a special dual channel system for personnel safety was added during the course of the cooperation. AGILOX Services therefore received a technology that was even more innovative and more complex than the original requirement. Equipped with USi® and USi® Safety at the end of the integration process, the Intelligent Guided Vehicle from AGILOX Services can now operate without interruptions, which allows maximum efficiency. In addition, the IGV AGILOX is the only automated transport system on the market that is fully protected according to ISO 13849-1 Category 3 PL d – a unique selling proposition with long-term benefits for AGILOX Services.

“The use of USi® Safety in very small installation spaces has allowed us to make the AGILOX altogether more safe, while keeping everything very smart.”

Josef Baumann-Rott, Co-founder AGILOX Services GmbH

[Intro + Fließtext 3.450 Zeichen inkl. Leerzeichen]

Mayser

Mayser is an international Company Group currently operating at five locations in Europe and the USA. The company develops and produces high-quality products, systems and solutions in the areas safety technology,

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Mayser GmbH & Co. KG
Oerlinger Str. 1-3
89073 Ulm
GERMANY

Phone: +49 731 2061-0
Fax: +49 731 2061-222

www.mayser.com

foam technology and moulding as well as headwear. The origin of the company goes all the way back to the year 1800, where everything started with the hat. With an average annual increase in turnover of 16 % between 2014 and 2016, today Mayser has an excellent reputation in safety and foam technology in many industries, including automotive, mechanical engineering or local public transport.

Image material:



Agilox conveyor systems rely on ultrasonic sensors for trouble-free manoeuvring in tight spaces