

SCHMERSAL Tech Briefs:

UAM compact safety laser scanner



Overview

Safety Laser Scanners are presence sensing devices, also known as active opto-electronic protective devices responsive to diffuse reflection (AOPDDR). They are used to safely monitor stationary or mobile applications and are commonly used in robotic work cells or on autonomous mobile robots (AMR) and automated guided vehicles and carts (AGV, AGC). Safety Laser Scanners are one of the most effective presence sensing technologies as they can cover a wider area than compared to other solutions. The safety monitoring area generally comprises a wide warning zone and a narrower protection zone.

The UAM-05LP is a compact and light-weight safety scanner which can be mounted in confined spaces. It uses a 2D LiDAR system to monitor a 5 meter protection zone, with up to 20 meter warning area, and has a 270° field-of-view. It is equipped with an Ethernet interface, so distance data and intensity output values can be captured and sent to control systems. Special brackets are available for base or rear mounting, and a cover bracket prevents damage from materials falling on the scanner head.

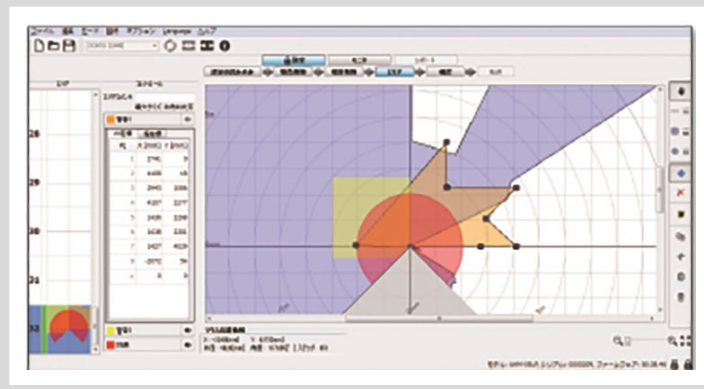
The UAM-05LP conforms to standards: IEC61469-1/3 Type 3; IEC61508 SIL2; ISO13849-1 PLd Category 3; UL508; UL1998; UL61496-1 Type 3; CSA C22.2 No. 14.

As one of the smallest scanners on the market, the UAM safety laser scanner provides a reliable solution for maximizing safety and preventing potentially unsafe situations in many industrial sectors.

Programming software

This scanner is easy to setup via software that allows you to create a monitoring area, drawn for your specific application with real-time measurement data. The complimentary software features a user-friendly interface with simple editing tools to configure complex zones.

Users can create up to maximum of 32 area patterns for safety and 64 patterns for non-safety. The software can also configure Master-Slave functions, and create two independent protection zones in Dual Protection Mode. Programs are uploaded via a Micro SD card slot or common USB connection.



Applications

- Collision detection
Automated guided vehicles
- Presence detection
Robot cells
Palletizers
- Point of operation
Presses
Printing machines
Injection molding
CNC Machines
Assembly Equipment

Available Literature



Scanner Brochure, 8 pages

Ordering Details

UAM-05LP-T301①

① Cable type

- blank* 3 meter cable, flying leads
- C 300 mm cable, with connector

Accessories

Extension cables (T301)

- UAM-5C10 10 meter cable
- UAM-5C20 20 meter cable

Extension cables (T301C)

- UAM-5C02C 2 meter cable
- UAM-5C05C 5 meter cable
- UAM-5C10C 10 meter cable
- UAM-5C20C 20 meter cable

Mounting brackets

- UAM-BK03 Base mounting bracket
- UAM-BK04 Rear mounting bracket
- UAM-BK05 Cover bracket

Additional accessories

- UAM-W002 Replacement lens
- UAM-ENET Ethernet cable, 3 meters

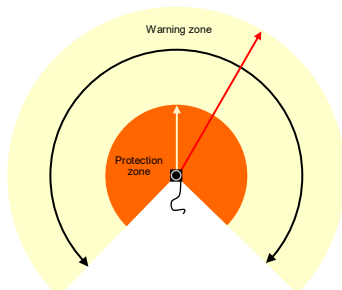
Compatible Safety Controllers

- SRB-E-201LC SRB-E-204ST
- SRB-E-201ST SRB-E-402ST
- SRB-E-301ST SRB-E-301MC
- SRB-E-212ST SRB-E-322ST
- SRB-301MC

SRB-E-204PE (input expansion only)

Bold part numbers are regularly stocked

Features



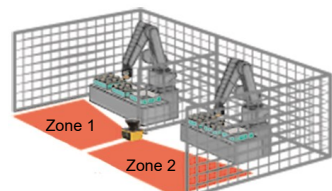
270 degree detection angle
5 meter protection zone
20 meter warning zone



Compact size
3.75" x 3.15" x 3.15"



SD card slot and USB port
for computer programming



Set up independent protection
zones to guard two adjacent
machines with a single scanner

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