



# APS

Collision-free pushback on the apron

**SICK**  
Sensor Intelligence.



### Technical data overview

<b>Supply voltage</b>	24 V DC (19.2 V DC ... 28.8 V DC)
<b>Application</b>	Airport
<b>Ambient operating temperature</b>	-25 °C ... +50 °C
<b>Integrated application</b>	Driver assistance system for pushback, maintenance and maneuver towing at the airport
<b>Vehicles</b>	Pushback tractors without towbar
<b>Monitored area</b>	Area under the docked aircraft behind the aircraft tractor
<b>Warning zones</b>	3
<b>Functions</b>	Audible and visual collision warning Maneuver assistant Aircraft type detection
<b>Scope of delivery</b>	LMS511 2D LiDAR sensor, Mounting kit 1 for mounting the LMS511, Mounting kit 2 for adjusting the LMS511 on mounting kit 1, operator display, mounting set for operator display, Ethernet switch, Buzzer, USB stick with operating instructions, Power supply cable (female connector open) for LMS511 (20m), Connecting cables for operator display (5 m), Connecting cables for operator display (10 m), Ethernet connection cable (angled) for operator display (5 m), Power supply cable (female connector open) for Ethernet switch (10 m)
<b>Working range</b>	0.7 m ... 80 m
<b>Scanning frequency</b>	25 Hz
<b>Angular resolution</b>	0.25°
<b>Heating</b>	✓

### Product description

The APS (Aircraft Protection System) driver assistance system is designed for cost-effective retrofitting on aircraft tractors. It provides a reliable warning that prevents collisions with other airport ground vehicles and the airport infrastructure to assist the driver with pushback, maintenance, and maneuver towing. The display shows all the obstacles that are in the vicinity of the aircraft. In the event that an obstacle is detected in close proximity to the aircraft, the driver receives an audible and visual warning. As a result the aircraft tractor can be stopped in a timely manner in order to avoid a collision.

### At a glance

- Visual and audible warning
- Integrated detection of the aircraft type and realistic visualization
- Application-specific warning strategy based on vehicle movement
- Adjustable safety distances
- Self-diagnostics function
- Integrated installation wizard

### Your benefits

- Prevention of collisions and accidents, resulting in reduced repair costs and downtime
- Efficient and seamless pushback, maintenance, and maneuver towing for excellent aircraft tractor availability
- Support and relief of the driver for safely maneuvering the aircraft
- Detection and tracking of moving and stationary obstacles without the need for RFID tags
- Low false alarm rate thanks to a situationally adaptive warning strategy
- Automated fault detection and targeted maintenance thanks to self-diagnosis
- Integrated installation wizard simplifies installation and operation

### Fields of application

- Pushback processes on the apron
- Maneuver towing when moving aircraft into the hangar
- Maintenance work even in tight spaces

### Ordering information

Other models and accessories → [www.sick.com/APS](http://www.sick.com/APS)

Application	Items supplied	Type	Part no.
Driver assistance system for aircraft tractors in order to avoid collisions between airplanes and other objects during the towing process	LMS511 2D LiDAR sensor Mounting kit 1 for mounting the LMS511 Mounting kit 2 for adjusting the LMS511 on mounting kit 1 Operator display Mounting set for operator display Ethernet switch Buzzer USB stick with operating instructions Power supply cable (female connector open) for LMS511 (20m) Connecting cables for operator display (5 m) Connecting cables for operator display (10 m) Ethernet connection cable (angled) for operator display (5 m) Power supply cable (female connector open) for Ethernet switch (10 m)	APS-5101	1069176

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)