

Safedock A-VDGS Type 1

Advanced Visual Docking Guidance System



Integrity is Key to Safety and Efficiency

The most efficient, safe and predictable ramp operation during all operating conditions.

An advanced visual docking guidance system (A-VDGS) must never fail to notify the pilot when it is not safe to proceed.

ADB SAFEGATE's Safedock Type 1 A-VDGS is designed with safety and availability in mind to provide intuitive azimuth guidance and accurate distance-to-go information to both pilots for safe, efficient and precise aircraft parking at a gate during all operating conditions and without marshallers.

Technology You Can Trust

Safedock interfaces with airport and airline systems, directly or via our SafeControl Apron Management software, to access flight information, such as the scheduled aircraft type and adjacent gate rules, allow automated docking, share real-time gate intelligence and provide management of the turn process.

Only ADB SAFEGATE's patented 3D laser scanning technology scans the gate area vertically and horizontally to capture and track aircraft. The unique horizontal scan allows the A-VDGS to measure parts of the aircraft on either side of the centerline to discriminate between aircraft types and subtypes. The system matches results against a predefined profile for the expected aircraft type and verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules and it is safe to park. The 3D scan also ensures precise parking for a wide range of parking distances and curved approaches.

Safedock does not rely on ambient light and can detect and adjust for low visibility conditions so that availability and safety are never compromised during darkness or bad weather. Safedock has been put to the test on more than 7,000 gates at more than 200 airports worldwide and is proven and trusted in all visibility conditions including rain, fog, snow, extreme sunlight and darkness.

The Safedock Type 1 includes an advanced digital laser, a wider scanning angle and an extra-large, high-intensity LED display to provide the fastest and safest way to dock aircraft and the flexibility to accommodate large aircraft, tight parking spaces and multiple centerlines. The apron scan option adds another layer of safety to standard ramp procedures by scanning the gate area during the docking process for obstacles that may pose a hazard. If an object is detected, the pilot is instructed to wait until the object is cleared.

The Type 1 LED display has the added capability to perform as a Ramp Information Display System (RIDS) to communicate critical information to flight and ground crew during the turn process in support of an airport surface CDM program.

Safedock Type 1 A-VDGS Key Features

- Patented 3D laser scanning technique tracks the lateral and longitudinal position of an approaching aircraft.
- 3D scan verifies with 100% accuracy that the approaching aircraft is compatible with gate and adjacent gate rules.
- One system is capable of handling all aircraft types at a single gate.
- Technology allows gate docking in all weather conditions, all visibility/lighting conditions and during ramp closures.
- Intuitive active guidance is provided to both pilots based on the position of the aircraft.
- One system can handle multiple centerlines (T1 allows maximum separation between centerlines of 30°).
- Passenger boarding bridge interface capability enhances ramp safety.
- Larger LED display and wider viewing angle provide expanded RIDS capabilities and improve awareness.
- Integrated IP camera records every docking and can be used for ramp surveillance. (Option)
- Apron scan enhances safety procedures with object detection within the laser scanning angle. (Option)
- Split system mount accommodates tight parking and large aircraft and provides optimal viewing and gate flexibility. (Option)
- Direct interface with airport and airline systems and ground support equipment for real-time gate intelligence.
- Advanced integration and data sharing (A-CDM) is easy via SafeControl Apron Management.
- Operator panel is used to manage the A-VDGS from the apron and includes an emergency stop function.
- Easy to maintain and update, high reliability and low cost of ownership.

Ramp Information Display System (RIDS) Capability

Static characters:	7 rows, 7 alpha/numeric characters per row
Alternating text:	7 characters × 4 text blocks on any row
Scrolling text:	50 characters on any row
Dual color:	Yellow or red available on every row

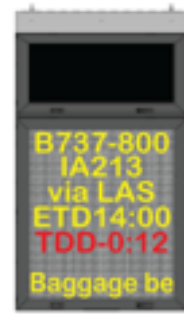
Safedock A-VDGS Type 1

Type 1 Technical Specifications

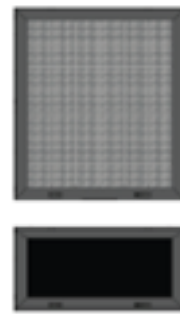
Sensor technology:	Infrared laser with patented 3D scan
Stop position accuracy:	10 cm / 3.9 in
Stop position distance:	2 - 65 m / 6.56 - 213 ft
Azimuth accuracy:	10 cm / 3.9 inches
Horizontal scanning angle:	±30°
Maximum separation between centerlines:	30°
Display type:	High intensity LED
LED configuration:	42 LED modules
LED resolution:	16 × 16 diodes per module
LED color:	All modules 2 color, yellow and red
Visibility angle:	170°
Readability distance:	180 m / 540 ft
Number of RIDS characters:	50 static alpha/numeric, can alternate/scroll text on any line
Data interface:	Ethernet
Power supply:	115/230VAC, +10%, 50/60Hz
Laser classification:	Class 1 eye safe / digital
Operational temperature:	-25°C – +50°C / -13°F – +122°F
Wind load:	Up to 44 m/s
Snow load:	Up to 1000 N/m ²
IP classification:	IP54 (operator panel IP65)
Dimensions (H × W × D):	1887 × 1087 × 724 mm / 74.3 × 42.8 × 28.5 in.
Weight:	140-150 kg / 308-331 lbs



Pilot guidance view



RIDS capability



Mount laser separate from pilot display



Operator panel