GATE

Safedock T1

Advanced Visual Docking Guidance System (A-VDGS)

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 (T1) 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 (SAM) 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 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, curved approaches and multiple centerlines.

The Safedock T1 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 T1 has been put to the test on hundreds of airports worldwide and is proven and trusted in all visibility conditions including rain, fog, snow, extreme sunlight and darkness.

The Safedock T1 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 within the laser scanning angle. 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 Safedock T1 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 T1 A-VDGS Key Features

- 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.
- Safedock T1 can handle up to three centerlines within ±15° from the center of the scanner unit.
- Passenger boarding bridge interface capability enhances ramp safety.
- Larger LED display and wider viewing angle provide expanded RIDS capabilities and improve awareness.
- 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.
- Easy to maintain and update, high reliability and low cost of ownership.
- Fixed Operator Panel Light (FOP-L), used to manage the A-VDGS from the apron and includes an emergency stop function. For more information about FOP-L, see separate datasheet and user manual.
- Option: Fixed Operator Panel (FOP), adding increased situational awareness. For more information about FOP, see separate datasheet and user manual.
- Option: Split system mount accommodates tight parking and large aircraft and provides optimal viewing and gate flexibility.
- Option: 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.

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Safedock T1

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

T1 Technical Specifications

Sensor technology	Infrared laser with 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 in)
Horizontal scanning angle	±30°
Maximum separation between centerlines	±15°
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 (590 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 (144 ft/s)
Snow load	Up to 1000 N/m² (92 N/ft)
IP classification	IP54[1]
Dimensions (H × W × D)	1840 × 1094 × 724 + 80 mm[2] (74.3 × 42.8 × 28.5 + 3.14 in)
Weight	140 – 155 kg (308 – 341 lbs)[3]

Notes
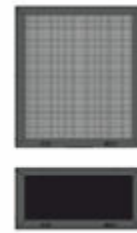[1] FOP-L IP65
[2] Including built-in suncover
[3] Depending on equipment installed

Pilot guidance view

RIDS capability

Separat pilot display and laser

FOP-L

www.adbsafegate.com

Product specifications may be subject to change, and specifications listed here are not binding. Confirm current specifications at time of order.

ADB SAFEGATE