

GATE

Safedock T2

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 2 (T2) 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 T2 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 T2 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.

One Safedock T2 system has the flexibility to accommodate all aircraft types at a single gate and handle multiple centerlines within the laser scanning angle. The Safedock T2 high-intensity display is comprised of LED modules in yellow or red and is available in an 18 or 24 LED module configuration.

The Safedock T2-24 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 T2 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 T2 can handle up to three centerlines within $\pm 9^\circ$ from the center of the scanner unit.
- Passenger boarding bridge interface enhances ramp safety.
- LED display provides RIDS capabilities to improve awareness.
- 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 SAM.
- Easy to maintain, high reliability and low cost of ownership.
- Fixed Operator Panel Light (FOP-L) manage the A-VDGS from the apron and includes an emergency stop function. For more information, see separate datasheet.
- Option: Fixed Operator Panel (FOP) for network connected systems. For more information, see separate datasheet.
- Option: Integrated IP camera records every docking and can be used for ramp surveillance.

Safedock T2

Type 2 Technical Specifications:

Stop position accuracy	10 cm (3.9 in)
Stop position distance	8 – 50 m (26 – 164 ft)
Azimuth accuracy	10 cm (3.9 in)
Horizontal scanning angle	±13°
Maximum separation between centerlines	18°
Display type	High intensity LED
LED configurations	T2-18 with 18 LED modules T2-24 with 24 LED modules
LED resolution	16 × 16 diodes per module
LED color	2 colors, yellow and red
Visibility angle	48°, with sun shade
Readability distance	180 m (540 ft)
Number of RIDS characters	T2-18: 18 static alpha/numeric T2-24: 30 static alpha/numeric Both can alternate/scroll text on any line
Data interface	Ethernet
Power supply	115/230 VAC, +10%, 50/60 Hz
Laser classification	Class 1 eye safe
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 ¹
Dimensions w/ sun shade (H × W × D)	1520 × 900 × 422 mm (59.8 × 35.4 × 25.6 in)
Weight	100–110 kg (220–243 lbs)

Notes

¹ FOP-L IP65



T2-18 pilot view



T2-24 pilot view



T2-18 LED configuration



T2-24 LED configuration



RIDS capability, T2-24 only,
6 rows, 4-6 characters/row



FOP-L