

RELIANCE Commander

Airport Lighting Control & Monitoring System ALCMS-PLC



Compliance with Standards

- FAA:** Designed in compliance with FAA Advisory Circular 150/5345-56 (Current Edition). ETL Certified.
- ICAO:** Annex 14, Vol. 1, para. 5.3 and 8.3 and Aerodrome Design Manual part 5, para. 3.4 and 3.7.
- Military:** UFC 3-353-01 par. 15-3.

System Overview

ADB Safegate's RELIANCE Commander Airport Lighting Control and Monitoring System (ALCMS) is based on centralized Programmable Logic Controller (PLC) architecture and is typically used in small- to medium-sized airfield lighting applications to meet FAA Airport Lighting Control and Monitoring System specification L-890-XY. A PLC is a small industrial computer used to automate control and monitoring of airfield lighting equipment. L-890 PLCs are also typically interfaced to one or more touchscreen panels, which provides a graphical user interface to the air traffic controller and maintenance personnel. ADB SAFEGATE's PLC-based ALCMS is unmatched in performance, long-term reliability, and flexibility with many standard features and a wide range of innovative, cost-effective options.

Features

- Real-time status of the airfield lighting system
- Centralized PLC I/O-based control and monitoring utilizing commercially available, highly reliable, cost-effective Siemens PLCs
- Realistic airfield graphic displays provide detailed information to air traffic controllers and maintenance personnel
- Time-saving diagnostics and monitoring from remote locations
- Multiple redundant network configurations are available using any combination of fiber optic, hard-wire, and wireless networks

Control

- Programmable preset lighting controls automate common procedures
- Touchscreen – Single or multiple touchscreen control stations can be integrated within the ALCMS with built-in transfer procedures
- L-821 – Systems will support new or existing L-821 control panels with the addition of PLC components

- L-854 – Provisions for air-to-ground radio control of the airport lighting when tower is not staffed
- Soft-start control feature provides programmable delays between intensity step switching
- Programmable fail safe provides mechanically latching or preset fail-safe design to meet the airport requirements

Monitoring

- Real-time monitoring functions
- Capable of monitoring constant current regulators, circuit selectors, emergency generators, automatic transfer switches and any non-regulated circuit
- Custom monitoring options provide the flexibility to configure for full L-827 monitoring or simple current sensing relay monitoring
- ADB Safegate's optional AirSide® Remote Management System (A-RMS) provides secure remote access to the ALCMS-PLC via the airport's secure network. Access is provided via a high-speed VPN connection device and software that allows ADB SAFEGATE service engineers and/or airport personnel to monitor and service an airport's ALCMS-PLC from a remote location. For more information about ADB Safegate's A-RMS, see data sheet 3079

Alarm Reporting

- Extensive searching and reporting capabilities
- Alarming capabilities to meet the requirements of your airport
- Alarming tolerances are configurative to adjust sensitivity
- Alarm and event filtering provides the flexibility to control messages to the airport traffic control tower and maintenance
- Search filters can sort based on date, range of dates, circuit, regulator, reported location and type of alarm
- Report hard-copy printing and exporting to electronic file

RELIANCE Commander

Ordering Code

ALCMS - X X

Monitoring Options

- A = Control Only
- B = Basic Monitoring

Fail-safe Options

- A = Preset
- B = Last State - Latching



Touchscreen

- Multiple touchscreen control stations can be integrated within an ALCMS
- Each touchscreen control station may share control of an airfield or have a specific area of control

Each touchscreen control station operates independently of one another and provides complete redundancy for airfield lighting control and monitoring

Touchscreen Features

- High-definition airfield graphic representation
- High-contrast, anti-glare monitors, with multiple installation options
- LCD flat screen displays, with various sizes available
- Intuitive user interface provides 'pop-up' buttons that lead the air traffic controllers through lighting control tasks. Each action must be "confirmed" before execution.
- Highly flexible preset or selective airfield lighting control, easily configured
- Programmable event and alarm filters reduce information overload for air traffic controllers

Environmental Protection

PLC Cabinet: NEMA 12 (IP 40)

Operating Conditions

Touchscreen/Panel PC	
Operating Temperature	0 °C (+32 °F) to +40 °C (+104 °F)
Relative Humidity:	10-95% at 40 °C (non-condensing)
PLC Cabinet	
Operating Temperature:	-25 °C (-13 °F) to +50 °C (+122 °F)
Relative Humidity:	Up to 95%



Electrical Supply

Touchscreen/Panel PC	
Input power:	Single phase, 100-240 VAC, 50/60 Hz
PLC Cabinet	
Input power:	Single phase, 100-264 VAC, 50/60 Hz

Please contact the Sales Department for more information on ADB Safegate's advanced technology products.

www.adbsafegate.com

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