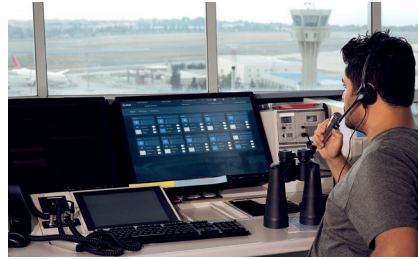# ALCMS BASIC

AIRFIELD LIGHTING CONTROL & MONITORING SYSTEM

+ HARDWARE

SYSTEM OVERVIEW

S4GA ALCMS is an Airfield Lighting Control and Monitoring System designed to provide full remote control and monitoring of solar LED runway lighting from the TWR or maintenance center. S4GA ALCMS consists of Computer Interface integrated with UR-201 Control and Monitoring Unit. It features open interface for integrating with existing conventional AGL control system.

FEATURES

- Individual Light Status Display
- 1-6 Groups/Circuits Control (optionally up to 12)
- Up to 5-step Light Intensity Setup (optionally 6-steps)
- Operating Mode Setup (Visible/NVG/Remote/Autonomous)

CONTROL

- Grouping of entire airfield lighting in up to 12 major groups
- Control of entire lighting system and groups of lights
- 5-step intensity level setup for a particular group of runway lights and PAPI
- Operating modes setup (Visible, NVG, Remote, Autonomous)
- Timer setup (for VHF-activated and GSM-activated modes)

ALCMS Basic is designed for airports with simple runway lighting system configuration. ALCMS Basic allows to control entire system and groups of lights separately (e.g. runway, threshold and taxiway lights) as well as report about individual light statuses.

	ALCMS Basic	ALCMS Advanced
Real-time monitoring	YES	YES
Automatic failure alarm	YES	YES
Operating mode setup	YES	YES
Individual light status indication	YES	YES
Grouping of airfield lights	up to 12	up to 50
Light intensity, steps	up to 6	up to 6
Separate taxiways control	YES	YES
Airfield layout	N/A	YES

For airports with more advanced AGL system (including few taxiways, approach lighting, temporarily closed areas), S4GA offers **ALCMS Advanced.**

S4GA | UR-201 Connect: ● | Control by: ALCMS | Total Solar Efficiency: 0% | ☼ | Night mode ⬤ | ⚙ | Military Airbase

Co2 saved: 0.00 tonnes | Total Time Left: 453h 35m | 📅 09/07/2021 13:05:39 LOC | 📅 09/07/2021 11:05:39 UTC

Monitoring   **Control**   Notifications

RWY EDG
+
3%
−
📏 461h 54m
📍 1m
Night Vision ⬤
Dusk Till Dawn ⬤
Flashing ⬤

TWY
+
10%
−
📏 497h 40m
📍 --
Night Vision ⬤
Dusk Till Dawn ⬤
Flashing ⬤

PAPI
+
0%
−
📏 --
📍 --
Night Vision ⬤
Dusk Till Dawn ⬤
Flashing ⬤

GENERAL STATE INDICATORS

INTENSITY CONTROL BUTTONS

EQUIPMENT MONITORING
- **Time to discharge**
- Illuminating Time

OPERATING MODES
- Night vision
- Dusk Till Down
- Flashing

TABS
- Monitoring
- Control
- Notifications

v0.9.44

MONITORING KEY FEATURES

- Individual light Status Monitoring - includes such parameters of light as: battery level, charging speed, temperature, operating status, etc.
- Monitoring of UR-201 Control unit status
- Preventive Maintenance function - allows for planning maintenance works for individual equipment items (ie. battery replacement, solar panel cleaning etc.)
- Asset Management Tool - sorts and filters information provided by the system for efficient data management

Monitoring Tab makes it possible to monitor all airfield lighting devices. The information provided allows to obtain data not only about the current condition of devices, but also about maintenance requirements. This way end user can pro-actively supervise entire system and its components. Key features of the monitoring system:

NOTIFICATIONS KEY FEATURES

- Automatic Failure reporting via email
- Customization of reporting thresholds

Notification Tab provides user with quick overview of all critical issues. Whether light is not working or it has low battery - user will have immediate feedback stored in Notification Tab. Moreover user can customize level of threshold that triggers particular notification (e.g. battery level is lower than x%). Key features of the notification system:

CRITICAL NOTIFICATIONS

CUSTOMIZATION OF AUTOMATIC REPORTING BY USER

COMPLIANCE

Compliance of Computer Interface

Compliance	
ICAO Aerodrome Design Manual	Part 5 Electrical Systems / Chapter 10, clauses 10.1 - 10.12 & clause 10.14
ICAO Annex 14, Volume I	Electrical Systems Chapter 8, clauses 8.3.1 - 8.3.5
EASA CS ADR-DSN.S.890	CS ADR-DSN.S.890 Monitoring, clauses (a), (b) & (d)
FAA AC 150/5345-56B	Specification for L-890 Airport Lighting Control and Monitoring System (ALCMS), clauses 3-7 & 9

Compliance of ALCMS Hardware - UR-201 Control & Monitoring Unit

Compliance	
RED Directive	RED DIRECTIVE 2014/53/EU on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC, clauses 3.1a, 3.1b & 3.2
RoHS Directive	ROHS DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment, clause 4.1
FAA AC 150/5345-56B	Par. 4.3 Hardware Requirements, clauses 4.3.1 & 4.3.2

ACCESSORIES INCLUDED

| 24' TV Monitor for TWR | Wireless set: keyboard + mouse | Power cable LAN cables | HMI Computer | LAN Router | Tablet PC (optional) |

+ HARDWARE

ALCMS BASIC OBLIGATORY REQUIRES UR-201 TO BE SUPPLIED AND HMI COMPUTER

SHIPPING DATA

Item	Dimensions of Package (LxWxH)	Gross Weight
ALCMS Set (24' screen, cables, keyboard, mouse)	600 mm x 400 mm x 360 mm	10 kg