RELIANCE

Individual Light Control and Monitoring System

Platform III

Communication Unit integrated into the CCR

Remote

Compliance with Standards

European standards   DIN EN 62870 (VDE) 0161-105-SELV-2016-06

CE

Uses

- ADB SAFEGATE — COSAL® (Control System for Airfield Lighting) powers, regulates and monitors individual lights in electrical series circuits
- Allows ATC (Air Traffic Controllers) to control centrally and remotely and monitor individual lights for Approach, runway, taxiway, stop bars and apron
- Communicates via existing airfield series circuit power line
- RELIANCE™ Intelligent Lighting (IL) is a module of the COSAL system to control and monitor individual lights remotely

Features

- Blink feature to control Runway Guard Lights (RGL)
- Cyclic lamp failure detection with parameterizable cycle setup

Benefits

- More safety and ground traffic efficiency
- No master unit necessary
- Central unit (CU) configurable via lucDMC; Remote units configurable via CU or RFID (with lucDMC)
- Thyristor controls the series circuit current and generates control commands sent to the RELIANCE Intelligent Lighting SRU in the series circuits
- Control and Monitoring System (CMS)
- No extra data cable for communication with remote units (RU) required
- Low power losses, low power consumption
- Up to 70 RUs and 24 segments per circuit
- Blink feature to control position holding lights and runway guard lights (optional)

- Capability to synchronize blink features (optional)
- Data transfer using a fault detecting code
- SRU types 111 and 112 provide output voltage < 50 V RMS to support SELV systems according to DIN EN 62780
- Redundant field bus interface in CCR and CU
- Low cost for maintenance due to feedback from the lamps
- It is possible to parameterize the remote without any power supply
- Reliable communication
- Protection of the light circuit against overcurrent in case of sudden load changes when big light segments are switched due to full integration of the regulator
- Automatical resending of commands for improved data transfer security
- Remote programming via the series circuit possible
- Synchronization of runway guard lights (optional)
- Cyclic lamp failure detection with adjustable cycle times
- Fail-safe mode can be set to ON or OFF for every remote

Design

- RELIANCE Intelligent Lighting consists of a CU for controlling and communication as well as various remotes
- RELIANCE Intelligent Lighting SRUs, are installed via plug-in connectors, compliant with the FAA requirements, between the lights and the lamp transformers of the series circuit
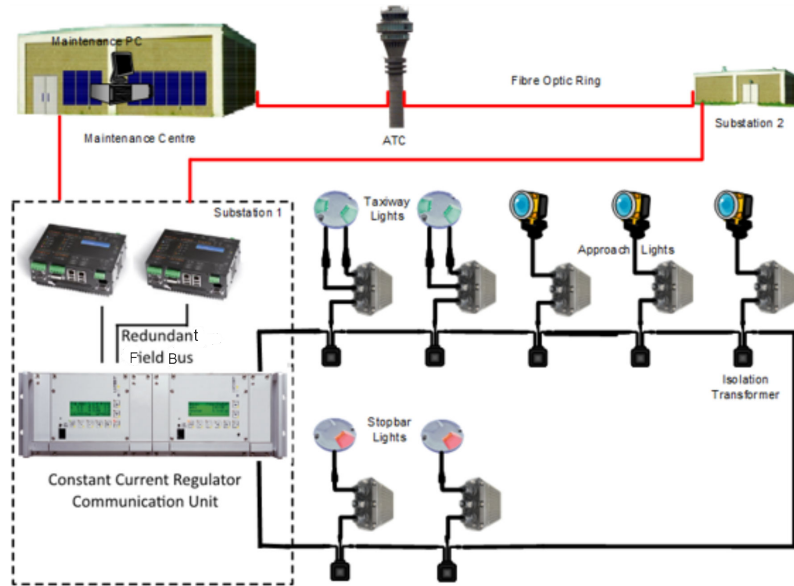
Recommendations and further Requirements

Reuse of existing installations and layout with maximum cable length or number of lights is to be verified.

Specific requirements for lamp transformers, e. g. in DIN EN 62870 systems, must be taken into account. Contact your technical sales representative for more information.

E-I-core transformers with 200 W power are recommended. An ADB SAFEGATE CCR type E is required as part of your RELIANCE ILCMS.

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Network Topology

Option with RELIANCE Intelligent Lighting Central Unit (RELIANCE Intelligent Lighting CU) for RELIANCE Intelligent Lighting with Remote

In ADB SAFEGATE COSAL Constant Current Regulators E (CCRE) type 501-E, 505-E, 506-E, 805-E, 105E, 531-E, 525-E and 117-E is a RELIANCE Intelligent Lighting CU (which equals a master unit used by competitors). These regulator types are designed especially for use with RELIANCE Intelligent Lighting system when combined with a RELIANCE Intelligent Lighting SRU single-channel (type 101 or 111) or dual-channel remote (102 or 112). See ordering code table.

Optional RELIANCE Intelligent Lighting Remote with Voltage Limiter for DIN EN 62870 Systems

The RELIANCE Intelligent Lighting SRU type 111 and 112 is equipped with an optional voltage limiter to support your DIN EN 62870 system.

Circuit Specifications

Number of controlled and monitored lamps per circuit	70 individual lamps with single remotes; 140 individual lamps with dual remotes
Max. number of operated segments	24 segments at the same time
Max. number of remotes per segment	70
Switchable lamps per remote	1 or 2 depending on the SRU type
Switching capacity per channel	315 W depending type of remote

Note:

- We reserve the right to further develop the products, make technical changes and change our specifications and designs at any time without previous notification. Characteristics and features of the products may differ from given information. Therefore performance can be different from the one specified, especially if you do not follow the intended use or fail to comply with our instructions.

- The specifications and descriptions in this data sheet are valid for products delivered from 05/01/2020. For further information to this data sheet please the ADB SAFEGATE sales team.

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