

# Control & Monitoring

## COSAL UCS

### Universal Control Server



### Specification

The ADB SAFEGATE Control System for Airfield Lighting COSAL is used for supplying, controlling, and monitoring series circuits.

The UCS 1000 universal control server, developed specifically for this system, is an integrated industrial PC, which is used both as a control computer at small and medium-sized airfields and as an interface for controlling lighting components.

### Construction

The UCS possesses two CAN buses, one RS485 and two RS232 interfaces. Lighting components that do not possess a field bus can be controlled directly using local inputs and outputs. Three Ethernet connections provide an option for redundant interfacing with the higher-order instrumentation and control system, and a function as a router for subordinate systems. Four USB 2.0 connections enable a touch system, a keyboard, a mouse and other specialized devices to be integrated.

In addition, the UCS features connections for monitors with a VGA or DVI-I interface. With a SSD hard drive or with a standard 8/16 GB cFast memory card, it serves as an industrial PC for touch-screens and/or other applications of the man-machine interface. The UCS is equipped with the UNIX operating system by default.

### Technical Features

- Double infeed for a redundant power supply
- Direct connection of I/O signals
- USB 2.0 interface for quick and easy program updates using a USB stick
- Realtime clock with backup battery
- Network time server in conjunction with a GPS receiver
- WLAN communication
- Variants of the application software can be activated using an encoding switch
- Input voltage range 9–32 V DC

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<b>Power Supply</b>	9–32 V DC / 17 W
<b>Operation Temperature</b>	From 0 °C to +50 °C
<b>Storage Temperature</b>	From -25 °C to +75 °C
<b>Humidity</b>	0–80 % (non-condensing)
<b>Elevation Above Sea Level - Operation</b>	From -10 m to + 3,000 m
<b>Elevation Above Sea Level - Transport</b>	From -10...+ 10,500 m
<b>Processor Board</b>	<ul style="list-style-type: none"> <li>• Intel® Atom X6414RE</li> <li>• 8 GB DDR4</li> <li>• cFast 8/16 GByte</li> <li>• &gt; mSATA SSD hard drive</li> <li>• Watchdog</li> </ul>
<b>Graphics</b>	Display Port, resolution Full HD 1920x1080 pixels
<b>Binary Inputs</b>	16 channels 10–32 V DC ±15% signal coupling via optocoupler and snubber circuit to protect against overcurrent, overvoltage, overtemperature and short circuit
<b>Analog Inputs</b>	2 x 0–10 V or 0/4 – 20 mA with 8 bits resolution
<b>Binary Outputs</b>	16 channels 24 V DC – signal decoupling via optocoupler and snubber circuit to protect against overcurrent, overvoltage, over-temperature and short circuit
<b>Network</b>	3 x RJ45 Ethernet connections 10/100/1000 Mbit/s
<b>Field Bus</b>	CAN 2.0 integrated
<b>Serial Interfaces</b>	2 x Serial, 2 x RS232 and 1 x RS485 4 x USB 2.0 external
<b>Weight</b>	500 g in the basic version
<b>Dimensions (L x W x H)</b>	132 x 185 x 90 mm