

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 a CAN bus 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 4/8 GB cFast memory card, and with the Windows 10 operating system, 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 V ... 32 V DC

Power supply:	9...32 V DC / 17 W
Temperature range:	Operation: 0...+45 °C
Storage:	-25...+70 °C
Humidity:	0...95 % (non-condensing)
Elevation above sea level:	Operation: -10...+ 3,000 m
Transport:	-10...+ 10,500 m
Processor board:	<ul style="list-style-type: none"> • Intel® Atom E3827 mit 2 x 1,75 GHz • DRAM DDR3L 2 GByte • cFast 4/8GByte • > mSATA SSD hard drive • Watchdog
Graphics:	DVI-I, resolution Full HD 1920x1080 pixels
Binary inputs:	24 channels 24 V DC ±15% signal coupling via optocoupler
Analog inputs	2x 0...10 V or 0/4...20 mA with 8 bits resolution
Binary outputs:	16 channels 24 V DC – signal decoupling via optocoupler and snubber circuit to protect against overcurrent, overvoltage, over-temperature and short circuit
Network:	3 x RJ45 Ethernet connections 10/100/1000 Mbit/s
Field bus:	CAN 2.0 integrated
Serial interfaces:	2 x Serial 1 x RS232 and 1 x RS232/485 4x USB 2.0 external
Weight:	1850 g in the basic version
Dimensions (L x W x H):	188 x 80 x 140 mm