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TECHNICAL DATASHEET · AIRPORT & HELIPORT LIGHTING · POWER, CONTROL AND MONITORING CABINET

Controller V4

EcoSolaris code **ECO-AL-4105** | Ordering code **AL-080-AX** | **Made in Romania** Manufactured in the EU



Controller V4 is an electrical cabinet containing all the equipment needed to power, protect, control and monitor the lighting systems of a heliport or airport. It is built to order for each project: circuit types, number of circuits and control options are chosen by the customer.

ORDERING CODE
AL-080-AX

POWER SUPPLY
110-240 V, 50/60 Hz

OUTPUT TYPES
230 V AC; 48 V DC; 1.4 A DC constant current

MAX POWER PER CHANNEL – 230 V AC
2000 W (not dimmable, for flashing lights)

Price on request | **EcoSolaris technical support · Dubai**

Technical specifications

Ordering code	AL-080-AX
Power supply	110-240 V, 50/60 Hz
Output types	230 V AC; 48 V DC; 1.4 A DC constant current
Max power per channel – 230 V AC	2000 W (not dimmable, for flashing lights)
Max power per channel – 48 V DC	500 W (dimmable, typically for heliports)
Max power per channel – 1.4 A	800 W (dimmable, series loop for airports)
Number of circuits	configured per project, theoretically unlimited
Brightness steps – heliport	10%, 30%, 100%
Brightness steps – airport	1%, 3%, 10%, 30%, 100%
Local control	front-panel LCD touch screen (standard)
Remote control (optional)	V4 console via RS485, Internet, ARCAL, ALCMS
ARCAL	3 / 5 / 7 microphone clicks = 10% / 30% / 100%
Monitoring	total or per-circuit power (optional), open circuit, PAPI/SAGA/HAPI failures
Protections	short circuit, overload, overvoltage, SPD, EMI
Electrical protection class	Class I (earth connection mandatory)
Temperature range	-20° to +55°
Degree of protection	IP20 (indoor installation, additional protection recommended)
Dimensions	1200 x 800 x 302 mm
Dimensions with 1.4 A constant-current output	1600 x 800 x 302 mm
Mounting	vertical position only
Housing	powder-coated metal cabinet, grey

Features

- Fully customisable: circuit types, number of circuits (theoretically unlimited) and control options
- LCD touch screen showing system layout, landing/take-off scenarios (optional), brightness, circuit status and errors
- 3-step dimming for heliports and 5-step dimming for airports, per circuit
- Remote control: V4 console over RS485, Internet (smartphone, tablet, PC), pilot-activated ARCAL, ALCMS
- Power consumption and failure monitoring with on-screen message and audible alarm
- Short circuit, overload, overvoltage, SPD and EMI protection
- Control rights settings

Standards and compliance

- ICAO Annex 14, Volume I – Airports
- ICAO Annex 14, Volume II – Heliports

Materials and construction

- Housing: powder-coated metal cabinet (grey)
- Cable glands: nickel-plated brass

Configuration options

- 48 V DC dimmable circuits (typically heliports)
- 1.4 A constant-current dimmable circuits (series loop, airports)
- 230 V AC non-dimmable circuits (flashing lights)
- V4 remote console over RS485, up to 500 m
- Control over the Internet
- ARCAL – aircraft radio control of aerodrome lighting
- ALCMS – control and monitoring system on a PC with 27" touch screen
- Power measurement, total or per circuit

Ordering code structure

AL - 080 - AX

AL	Series indicator (airfield lighting)
080	Product indicator – Controller V4
AX	Product type: accessory

Compatible accessories

AL-160-AX	Console Controller V4 (remote console)

Applications

Ground-level and rooftop heliports · **Airports and aerodromes** · **Constant-current series loops for runway lighting** · **Control from the tower, remotely or by the pilot (ARCAL)**