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TECHNICAL DATASHEET · AIRPORT & HELIPORT · ARCAL / PAL

Air-to-Ground Radio Receiver for POLARIS System

EcoSolaris code **ECO-AL-2916** | Ordering code **AL-118-AX-R** | **Made in Romania** Manufactured in the EU



ARCAL (Aircraft Radio Control of Aerodrome and Heliport Lighting) receiver that lets pilots remotely activate ground lighting and select the brightness level. Commands are passed to POLARIS lights through the LoRa radio remote control; the system can also be operated manually from the built-in keypad.

ORDERING CODE	3 CLICKS IN 5 SECONDS
AL-118–AX-R	**relay 1 – lights on at 10%**
5 CLICKS IN 5 SECONDS	**7 CLICKS IN 5 SECONDS**
relay 2 – lights on at 30%	**relay 3 – lights on at 100%**

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

Technical specifications

Ordering code	AL-118–AX-R
Function	ARCAL / PAL – pilot-activated lighting via VHF radio
3 clicks in 5 seconds	relay 1 – lights on at 10%
5 clicks in 5 seconds	relay 2 – lights on at 30%
7 clicks in 5 seconds	relay 3 – lights on at 100%
Local remote control	LoRa, 868 MHz (Europe), 915 MHz (USA) or optional 433 MHz
Brightness steps (LoRa and keypad)	1%, 3%, 10%, 30%, 100%
LoRa range	up to 10 km in direct line of sight, under ideal conditions
Power supply	240 V AC, 50 Hz
Protections	short circuit, overload, overvoltage
Degree of protection	IP65
Temperature range	-10 °C to +55 °C
Dimensions	400 × 300 × 210 mm
Weight	9.6 kg
Mounting	flat surface, 4 mounting points of 8.5 mm

Features

- Designed and built for simplicity and ease of maintenance
- Three ARCAL relays for 10%, 30% and 100%
- Relays trigger the LoRa radio remote control commands
- One-way LoRa remote control with up to 10 km range
- Manual keypad integrated in the cabinet door
- Separate antennas for ARCAL and LoRa

Standards and compliance

- FAA AC 150/5345-49

Materials and construction

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

Configuration options

- Factory-set LoRa frequency: 868 MHz, 915 MHz or optional 433 MHz

Ordering code structure

AL - 118 - AX - R

AL	Series indicator (Airfield Lighting)
118	Product indicator
AX	Product type (accessory)
R	POLARIS radio remote control

Applications

Unmanned or remote airfields **Heliports** **Emergency landing zones** **Night and low-visibility operations**