

## ARCAL Digital Radio Control

The ARCAL (automated radio control of aerodrome lighting) system allows pilots to activate and manage the intensity of airfield lights on approach. The system is ideal for unmanned airfields and control towers.

The Flash ARCAL system provides air-to-ground (Type I) radio control of Flash Technology solar airfield products. The pilot controlled lighting system allows for remote activation of your airfield's lights and their intensity by keying the microphone button of the pilot's standard VHF communication transmitter.

Airport operators benefit from maximum runway usage while minimizing energy expenditure and increasing the performance capabilities of our solar airfield products.

- Designed for outdoor, unattended all-weather operation
- Eliminates costly trenching and installation of control lines to remote facilities
- No special airborne equipment or adapters required
- Lights are activated remotely from the air and remain on at the selected intensity for a period of 15 minutes. Additional timer settings of 1, 30, 45 and 60 minutes are available.
- Receiver may be programmed to operate on any frequency in the specified VHF range between 118.0 to 136.0 MHz.
- Selectable decoder enable/disable prevents multiple relay operation during normal daytime operations.
- Optional Remote Maintenance Module (RMM) available
- Configurable to Type J or Type K ARCAL via DIP switch selection (Canada)

### Complies to International Standards

- FAA L-854 per AC 150/5345-49, ETL certified
- ICAO Aerodrome Design Manual, Part 5 para. 3.4.6
- FCC 47 CFR, Part 15:2007 (Class A)
- Canada TP 312 - Aerodromes Standards and Recommended Practices



# ARCAL

| SPECIFICATIONS        |   |               |            |        |     |         |      |         |      |
|-----------------------|---|---------------|------------|--------|-----|---------|------|---------|------|
| Receiver              | Single-conversion superheterodyne design<br>Adjustable sensitivity from 1 to 30 microvolts permitting a control range of 1-20 miles (1.6-32 km)   |               |            |        |     |         |      |         |      |
| Commands              | 3 intensity settings controlled by a series of 3, 5 or 7 microphone button clicks from the pilot  |               |            |        |     |         |      |         |      |
| Power                 | <table border="0"> <tr> <td>Input Voltage</td> <td>Maximum VA</td> </tr> <tr> <td>12 VDC</td> <td>11*</td> </tr> <tr> <td>120 VAC</td> <td>15**</td> </tr> <tr> <td>240 VAC</td> <td>18**</td> </tr> </table> | Input Voltage | Maximum VA | 12 VDC | 11* | 120 VAC | 15** | 240 VAC | 18** |
| Input Voltage         | Maximum VA  |               |            |        |     |         |      |         |      |
| 12 VDC                | 11*   |               |            |        |     |         |      |         |      |
| 120 VAC               | 15**  |               |            |        |     |         |      |         |      |
| 240 VAC               | 18**  |               |            |        |     |         |      |         |      |
| Frequency             | 118.0 to 136.0 MHz VHF<br>Digital control electronics allow operating frequency to be easily reprogrammed by the user   |               |            |        |     |         |      |         |      |
| Construction          | NEMA 4 (indoor/outdoor) enclosure<br>Built-in speaker with volume control<br>Omnidirectional ground-plane antenna with an additional 50' of cable for remote mounting   |               |            |        |     |         |      |         |      |
| Operating Temperature | -67 to 131 °F (-55 to 55 °C)  |               |            |        |     |         |      |         |      |
| Humidity              | 0 to 100%   |               |            |        |     |         |      |         |      |
| Altitude              | 0 to 6,60' (0 to 2000 m)  |               |            |        |     |         |      |         |      |
| Dimensions            | 12 x 10 x 8" (305 x 254 x 203 mm)   |               |            |        |     |         |      |         |      |
| Weight                | 21 lbs (9.5 kg)   |               |            |        |     |         |      |         |      |

| CONFIGURATION |                              |                           |
|---------------|------------------------------|---------------------------|
| Model         | Power                        | Antenna                   |
| ARCAL         | 12 VDC<br>120 VAC<br>240 VAC | Top Mount<br>Remote Mount |



\*Typical standby power is 4 VA at 12 VDC for calculating solar power autonomy  
\*\*120 or 240 VAC, ±10%

## FLASH TECHNOLOGY

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