

Radio-Controlled Solar-Powered Airfield Lighting

Typical Applications

- Defence Deployments
- Commercial and Regional Airports
- Humanitarian Programs
- Emergency and Temporary Airfield Lighting

Major Benefits

- Remotely switch between infrared and visible light
- SHUT DOWN or turn all lights 'ON' remotely within seconds
- Allocate lights into 'light groups', and remotely control each group

Control groups of lights independently

Change light colours remotely

Switch between infrared and visual light

Set units to synchronized flashing

An intelligent system, with practically unlimited range

Each light incorporates leading technology

"I would strongly recommend that you consider Avlite as a possible source for your lighting needs. I have had outstanding success using many of their lighting systems."

**Airfield Safety Officer
Speicher AAF,
US Army, Iraq.**



The Avlite Systems radio-controlled airport lighting system is a solar-powered LED lighting package designed to offer airports, defence, and aid agencies complete flexibility and enormous advantages over traditional fixtures.

The system is operated by a wireless handheld controller, which enables personnel to remotely activate and set specific characteristics of lights within their airfield.

Lights can be allocated to up to 15 'groups', such as taxiways, runway edge or threshold, and each group can be controlled independently.

The operator can change the colour of each light in the group remotely by selecting between internal LED light banks - greatly expanding the flexibility of the system.

For defence applications, models can be supplied with the ability to remotely switch between visual and infrared light output.

In addition to switching between operating colours, lights can be set to any of over 250 flash patterns, including MORSE CODE. Lights set to the same flash rate will automatically synchronize with each other to provide clear perimeter or security marking.

Using advanced proprietary software, the airfield lighting system has a practically unlimited operational range. The operating range of the hand-held controller is up to 1.5km - after which the furthest light in range will relay the message to lights falling outside this area.

Avlite Systems is a world leader in the production of solar-powered LED airfield lighting systems, deployed throughout some of the most demanding regions by customers including the US Army and US Air Force.

Each light is solar-powered, and will automatically charge the integrated battery during daylight hours. The internal battery has a life expectancy of 5 years, after which can be readily changed on-site by the operator.

The models use LEDs as a light-source, which means there are no globes to change - ever.

The coupling of advanced embedded-systems electronics, and LED and solar technology, allows for an airfield lighting package which can be deployed in minutes and can operate maintenance-free for many years - all this without the need for external power or underground trenching and cabling.



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System Components

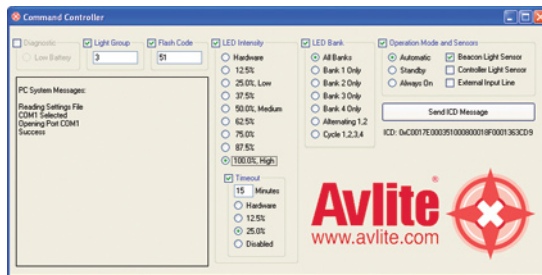


Wireless Handheld Controller

The handheld wireless controller enables personnel to remotely activate and set specific characteristics of lights within their airfield, via 128-bit encrypted RF data.

Lights may be designated into up to 15 independent groups, and then interrogated to specify individual light profiles such as light flash characteristic, intensity and colour (LED banks). In addition the lights may be manually activated via the controller, or set to automatically begin operation via the internal light sensor. The straight-forward menu makes the radio-controlled airfield lighting system very easy to operate.

The lightweight unit has an operational range of up to 1.5km, and features a heavy-duty aluminium housing, LCD/OLED screen, RF aerial and 4 press buttons for parameter control. An IP67 rated charging plug enables ease of battery recharge.



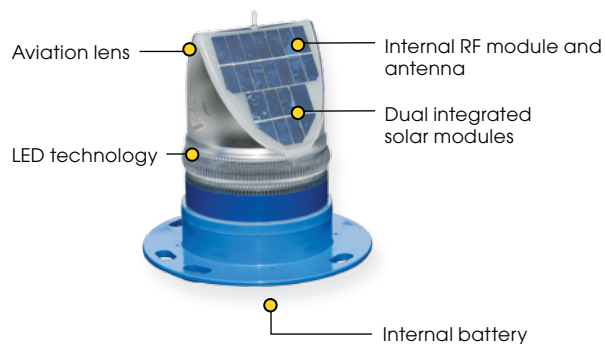
PC Interface (optional)

In addition to all the features available via the wireless handheld controller, users may access and interrogate their airfield lights via PC interface. All system features available from the handheld wireless controller are available from the interface, for ease of use and accessibility.

Avlite Systems PC interface Command Centre allows the user the ability to control the entire airfield without leaving their desk. Lights can be controlled as easily as selecting one of the many settings and pressing the Send ICD Message button.

Radio-Controlled Solar-Powered Airfield Lighting

System Components (cont.)



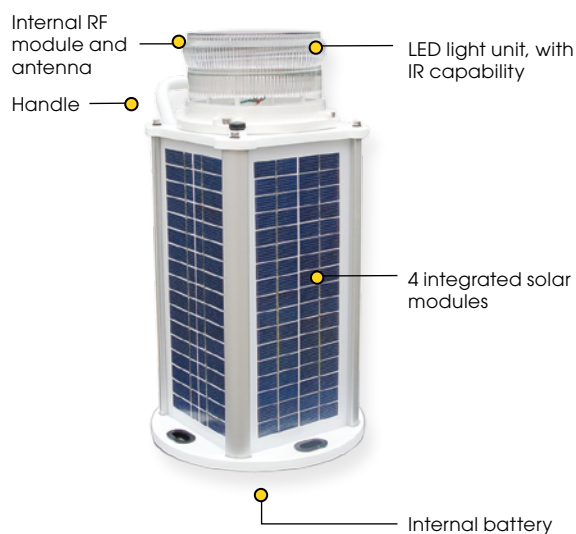
Radio-Controlled AV70

The AV70 solar-powered LED airfield light has an internal RF module and antenna to receive encrypted command messages from the handheld controller.

The light is completely self-contained, and is certified to ICAO standards (ICAO Annex 14 Volume 1, "Aerodrome Design and Operations", Forth edition July 2004, paragraph 5.3.17.7.).

The solar modules will continue to charge the unit during daylight hours, and at night the light will begin normal operation.

The model will operate maintenance-free for many years, and has been tried and tested in some of the world's most demanding regions including Iraq, Afghanistan, and the Australian Outback.

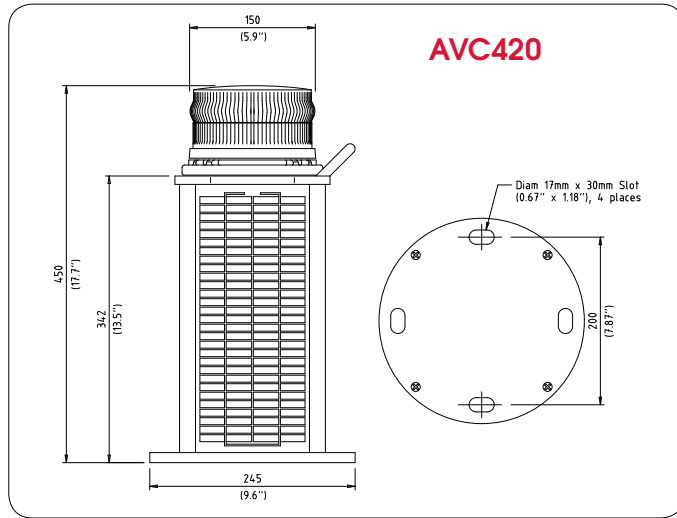
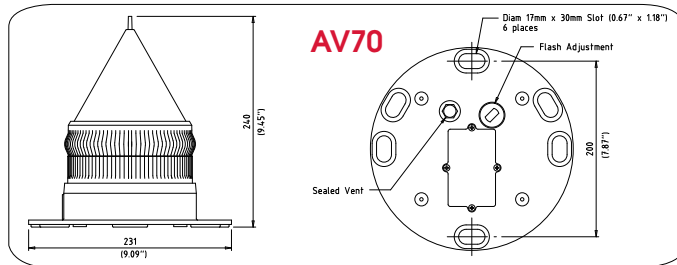


Radio-Controlled AVC420

The AVC420 radio-controlled solar aviation light is designed to meet the ICAO requirements for runway edge fixtures. The light is available in a variety of colours to suit runway edge and threshold applications, and includes an internal RF module and antenna to receive encrypted command messages from the wireless controller.

The AVC420 also has an IR option, and can be switched between IR and visual light for covert operations.





SPECIFICATIONS •

| | AV70 | AVC420 |
|-----------------------------------|---|---|
| Light Characteristics | | |
| Light Source | 12 ultra-high intensity LEDs | 36 ultra-high intensity LEDs |
| Available Colours | Red, Green, White, Yellow, Amber, Blue, Sectored Combinations | Red, Green, White, Yellow, Amber, Blue, Sectored Combinations |
| High Intensity (temporary) | 25cd (white) | 125cd (white) |
| Medium Intensity (temporary) | 12cd | 50cd |
| Standard Intensity | 7cd | >25cd |
| Horizontal Output (degrees) | 360 | 360 |
| Vertical Divergence (degrees) | 0 to +10 | 0 to +15 |
| Reflector Type | Omnidirectional 360° LED Reflector (US Pat. No. 6,667,582, AU Pat. No. 778,918) | Omnidirectional 360° LED Reflector (US Pat. No. 6,667,582, AU Pat. No. 778,918) |
| Available Flash Characteristics | Fixed-on as standard (>250 available (user-adjustable)) | Fixed-on as standard (>250 available (user-adjustable)) |
| Intensity Adjustments | Via radio modem or manually | Via radio modem or manually |
| LED Life Expectancy (hours) | >100,000 | >100,000 |
| Electrical Characteristics | | |
| Operating Voltage (v) | 3.6 | 12 |
| Autonomy | 180 hours at standard intensity | 200 hours at standard intensity |
| Temperature Range | -40 to 80 °C | -40 to 80 °C |
| Radio | 2.4GH, 1.5km range, networking | 2.4GH, 1.5km range, networking |
| Solar Characteristics | | |
| Solar Module Type | Multicrystalline | Multicrystalline |
| Output (watts) | 2.5 | 16 |
| Solar Module Efficiency (%) | 14 | 14 |
| Charging Regulation | Microprocessor controlled | Regulator controlled |
| Power Supply | | |
| Battery Type | Battery | SLA (Sealed Lead Acid) |
| Capacity (Ah) | High grade NiMH – Environment friendly | 20 |
| Nominal Voltage (v) | 16 | 12 |
| | 3.6 | |
| Physical Characteristics | | |
| Body Material | LEXAN® Polycarbonate – UV stabilized | 7-stage powder-coated aluminum |
| Lens Material | LEXAN® Polycarbonate – UV stabilized | LEXAN® Polycarbonate – UV stabilized |
| Lens Diameter (mm/inches) | 140 / 5 1/2 | 150 / 5 7/8 |
| Lens Design | External optics with interior flute design | External optics with interior flute design |
| Mounting | 6 x 17mm holes on 200mm PCD | 4 x 17mm holes on 200mm PCD |
| Height (mm/inches) | 240 / 9 1/2 | 450 / 17 3/4 |
| Width (mm/inches) | 231 / 9 1/8 | 245 / 9 2/3 |
| Mass (kg/lbs) | 1.1 / 2 3/8 | 10.8 / 23 3/4 |
| Product Life Expectancy | Up to 12 years | Up to 12 years |
| Certifications | | |
| CE | EN61000-6-3:1997, EN61000-6-1:1997 | EN61000-6-3:1997, EN61000-6-1:1997 |
| Quality Assurance | ISO9001:2000 | ISO9001:2000 |
| Waterproof/Dustproof | IP68 | IP68 |
| Intellectual Property | | |
| Patents | US Pat. No. 6,667,582, AU Pat. No. 778,918 | US Pat. No. 6,667,582, AU Pat. No. 778,918 |
| Trademarks | AVLITE® is a registered trademark of Avlite Systems | AVLITE® is a registered trademark of Avlite Systems |
| Warranty | Full 3 year warranty | Full 3 year warranty |
| Options Available | • IR | • IR |

CE

• Specifications subject to change or variation without notice



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