

Installation Manual

Andromeda Galactica

Position / Nav / Strobe LED Light

AveoEngineering™

© Aveo Engineering Group, s.r.o.
www.aveoengineering.com

Table of Contents

1. *ANDROMEDA GALACTICA* 3
Main Features:..... 3

2. *WIRING DIAGRAM*..... 4

3. *CONTROL & POWER INPUTs:*..... 4

4. *TECHNICAL SPECIFICATION* 5

5. *TECHNICAL DRAWING*..... 5

6. *WIRING CHART* 6

7. *OPERATING AND TESTING THE FUNCTION OF THE AVEO GALACTICA SERIES LIGHTS BEFORE INSTALLATION*..... 7

8. *CARE AND CLEANING OF YOUR AVEO ENGINEERING AVIATION LIGHTS*..... 8

1. ANDROMEDA GALACTICA

The Andromeda Galactica Series lights are the at the pinnacle of the aircraft aviation lights industry; there is simply no finer or brighter wing light available anywhere in the world. Exhaustively engineered to the finest optical angles and ranges to far exceed all certification standards, and also thoroughly and rigorously tested to the latest DO-160F environmental testing standards, the Andromeda spent more than a year in our optics design lab to achieve industry-first performance levels.

Incorporating special highly reflective chrome reflectors that are designed with special software to optimize angular intensities to design requirements, the Andromeda lights are ideal for aircraft that want to be seen at the maximum distance possible, while still enjoying extremely low electrical draw and the absolute minimum drag profile. Encapsulated in the exclusive AveoDiamidium™ formulation, the Andromeda lights are virtually unbreakable and with our exclusive aircraft lifetime warranty there is no risk to the owner that he will ever need to buy another set of wing lights again.

The HSLP (High Speed Low Profile) lights feature unibody construction, while the GALP (General Aviation Locking Pad) lights are a special 2-part design, with locking mechanism that makes them easily removable.

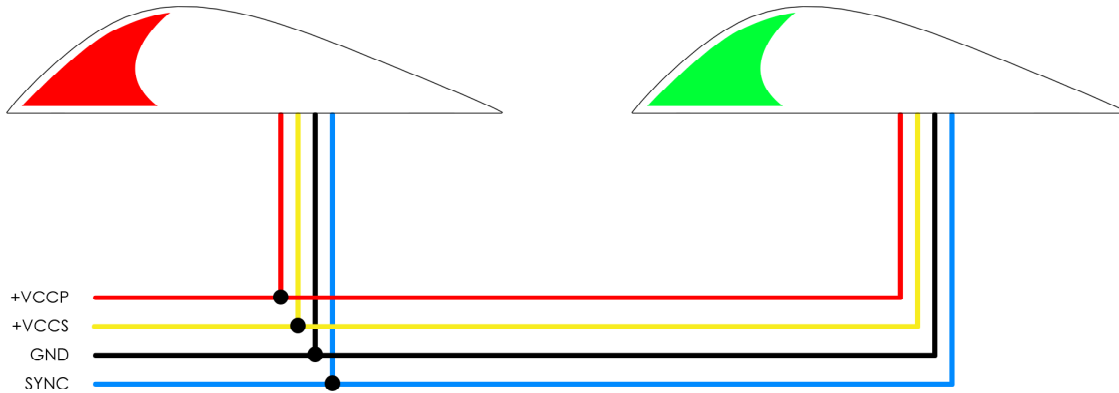
Andromeda lights are available with a series of custom mounting adapters to fit many popular aircraft wingtips.

Each light (unit) have on the bottom side a bar code label. On this bar code label is also special code, which shows the type of light and last letter mark the colour of unit (e.g.: AVE-WPSTR-XXX is red light, AVE-WPSTG-XXX is green light).

Main Features:

- 3-in-1 Nav/Position/Strobe
- 9-32 volt DC input range
- no external power supply or strobe unit
- light synchronization feature
- minimum drag profile
- unbreakable Diamidium™ encapsulation
- exclusive Lifetime Warranty
- unmatched circuit technology
- available in 2 versions, GALP and HSLP

2. WIRING DIAGRAM



3. CONTROL & POWER INPUTs:

- | | |
|--------------|---|
| +VCCP | - positive position power supply line |
| +VCCS | - positive strobe power supply line |
| GND | - negative common power supply line (ground) |
| SYNC | - strobe synchronization line (mutually interconnect on all installed AveoFlash lights) |

There is no connector included in the package.

Used connector need to sustain current rated for each section of the light.

Ingress level (International Protection Rating) of used connector need to follow installed conditions.

4. TECHNICAL SPECIFICATION

Dimensions: *135 mm x 33.7 mm x 26 mm*
5.31" x 1.33" x 1.02"

Weight: *90 g / 3.17 oz*

Operating Voltage Range: *9 – 32 Vdc*

Power – position: *7.5 W*

Power – strobe: *9 W (45 W peak)*

Current – position (@12V): *0.6 A*

Current – strobe (@12V): *0.75 A (3.8 A peak)*

Repetition Flash Rate of Strobe: *50 cycles per minute*

Exceed requirements of: *- TSO C30c C96a*
- SAE AS 8037 and AS8017a
- DO-160F

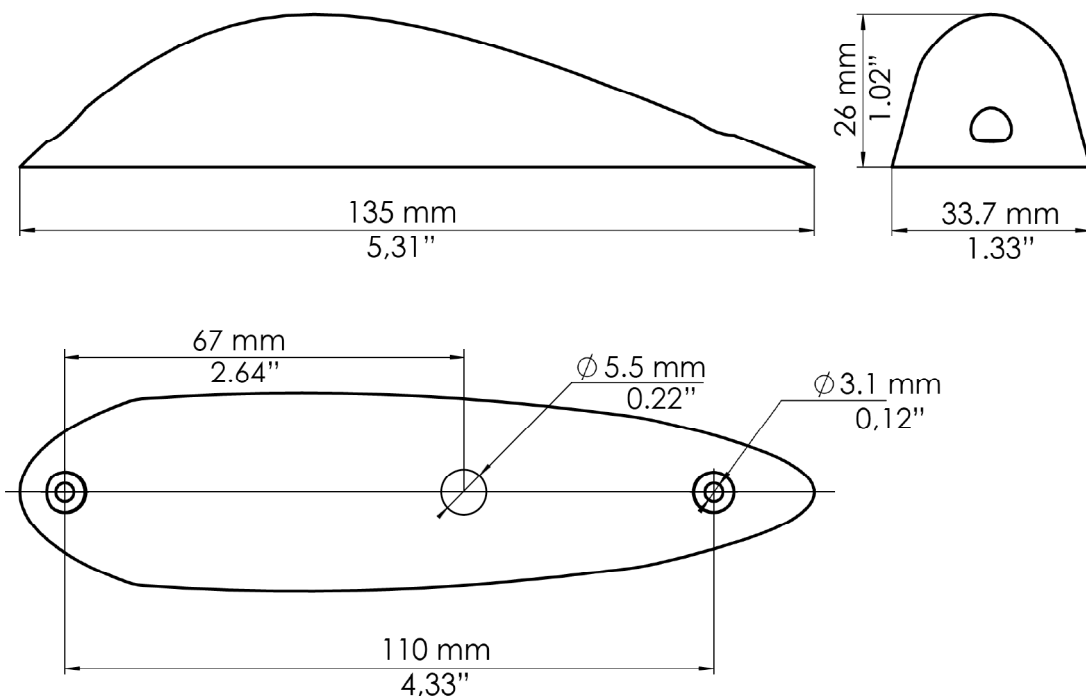
Recommended size of mounting screw: *M3*

Supplied cable:

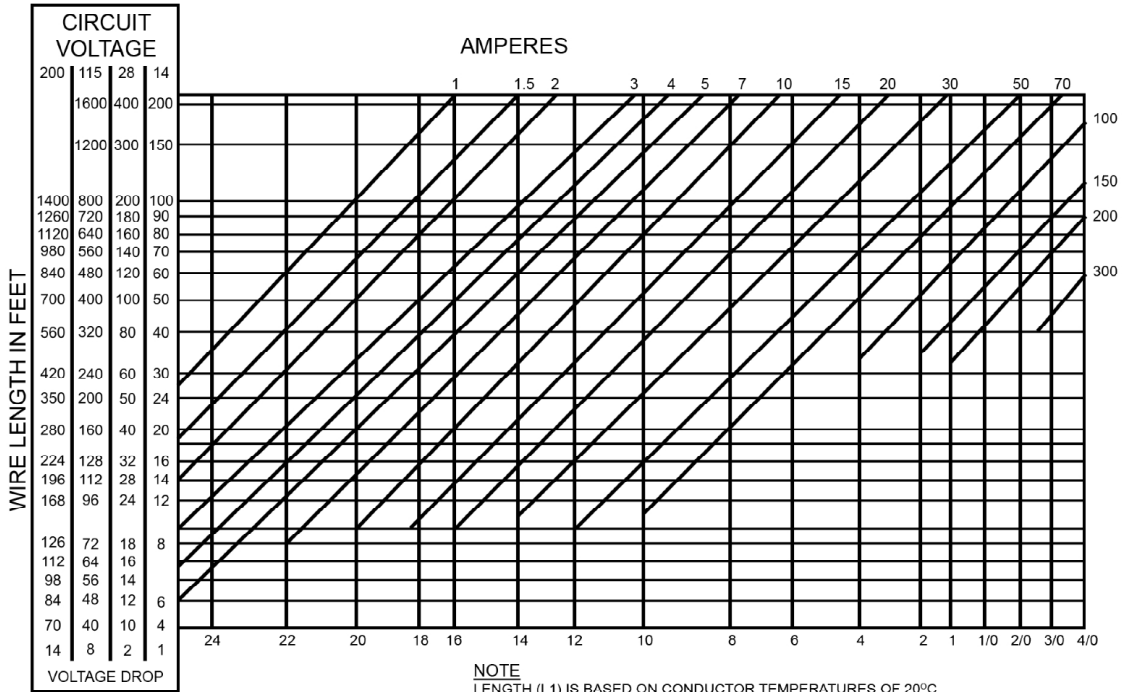
Wire Type is AWG 20 / 0.812 mm

Length of pigtail wires is 7 inches / 177,8 mm

5. TECHNICAL DRAWING



6. WIRING CHART



WIRE SIZE

VOLTAGE DROP CHART
 INTERMITTENT FLOW AT 20°
 TIN-PLATED MIL-W-27759
 CONDUCTOR

NOTE
 LENGTH (L1) IS BASED ON CONDUCTOR TEMPERATURES OF 20°C
 TO DETERMINE LENGTH (L2) AT HIGHER CONDUCTOR TEMPERATURE USE FORMULA
 WHERE T2 - ESTIMATED CONDUCTOR TEMPERATURE °C

7. OPERATING AND TESTING THE FUNCTION OF THE AVEO GALACTICA SERIES LIGHTS BEFORE INSTALLATION

All Aveo Aviation lights undergo rigorous testing prior to being released from our engineering manufacturing department. This testing involves a burn-in time as well as other function testing. No light is released for sale without undergoing this extensive operational testing.

When you receive the Aveo Galactica Series Aviation Lights, and wish to test the function of the lights prior to installation on your aircraft, please note the following:

1. Please review the written information that is enclosed in the packaging. Warranty information as well as a cautionary note about power supply removal is enclosed with each package.
2. Remove the lights from the package. Note that there are four (4) wires coming from each light. These wires are:
 - a. Black wire – Ground wire (negative lead)
 - b. Red wire – Navigation / Position light function wire (positive lead)
 - c. Yellow wire – Strobe light function wire (positive lead)
 - d. Blue wire – used if the synchronization of the Aveo lights is selected
3. Testing of the function of each light can be done with a regular 12V/5A dc power supply (not a battery chargers). Connect the black wire to the ground (negative) leads of a power supply, then connect the red wire to the positive (+) leads on the power supply. The position/navigation part of the light, either red or green on the front side and white on the back side should light up. While the red wire is still in contact with the positive side of the power supply, connect the yellow wire to the positive lead. Both the position/navigation and the strobe function should work. **For the Galactica Series of lights, the strobe function is separate from the nav function and can be tested separately.** To test the strobe function separately, just connect the yellow wire only to the positive terminal of the power supply while the black wire is connected the ground side of the power supply. Connecting the blue wires from each light together (and not to the ground or positive terminals on the battery) should show that the lights are flashing together and indicates the synchronization feature is working properly. When installed on the aircraft, using the aircraft's power (14 or 28 volts), the lights will be at their maximum intensity.

After testing, the lights can be installed on the aircraft.

IMPORTANT NOTES:

1. Under no circumstances should any power supply other than a 9-32V DC, or a 12/24 volt battery be used to test the lights. Do not use: Battery chargers, battery back-up power devices, or other bench avionics testing methods to test the aviation lights. The lights are functional between 9 and 32 volts. Use of a battery charger or other power unit to test the lights will void the warranty and may damage the lights.

2. All power supplies for existing strobe lights, flasher beacons, etc. are required to be removed from the aircraft prior to the installation of the Aveo lights.

If you have any questions about the installation of the lights, please refer to our web site: www.aveoengineering.com, and check FAQ and other links on our aviation lights web page.

8. CARE AND CLEANING OF YOUR AVEO ENGINEERING AVIATION LIGHTS

When you receive your Aveo Engineering Aviation Lights, they will have been factory polished and ready to install on the aircraft. Upon installation, just give the lights a good coat or two of a quality automotive polish. This should protect the lights from dirt and other environmental factors. Once or twice a month, just refresh the polish and hand buff to bring back the lights to factory like new condition.

If the lights need a deeper cleaning, they can be polished with a good automotive cleaner wax and/or a liquid polishing compound. The liquid polishing compounds can normally be found at automotive parts stores or an automotive paint store. After using a polishing compound, just give the lights another coat of an automotive polish and you will again protect the lights against dirt, etc.. An electric buffing machine, with a lamb's wool cover, can also be used for deeper cleaning and polishing. Under no circumstances should any petroleum based product be used to clean the lights.