

AES Product Catalogue

Innovations leading the way
to success!

AES 

»Quality is never an accident ...
it represents the wise choice
of many alternatives.«

William A. Foster

Introducing our product line...

We offer solutions for tough environments.

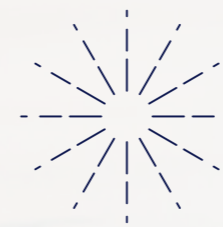
The heavy demands within the aviation industry continually push the limits of technical feasibility, creating major challenges for our engineers. Our technical knowledge in of aviation, high quality product standards and services, and an uncompromising focus on our customer's requirements, have made us a reputable international service and product supplier in the aviation industry. Working towards integrated solutions, we specialise in exciting and sophisticated development work.

Today, we possess the ability to engineer complete electrical systems within an aircraft. Our services are available full circle, from electrical engineering and design, to the development and production of electrical and electronic aircraft products and systems. These include LED lighting solutions, power management, digital controls, and telecommunication systems for commercial aircraft cabins and private planes. Our global customers include Airbus and Boeing in addition to other aircraft manufacturers, various commercial airlines, cabin interior and galley manufacturers as

well as completion centres.

Our product portfolio for aircraft cabins includes power supplies, adjustable LED lighting for crew service areas and ambient lighting for cabins. Moreover, we produce light system controllers and panels, as well as auxiliary devices for cabin management systems. Our products are compatible with almost all types of aircraft systems (CIDC ect.) We tailor our products and develop interfaces, which guarantees your system functions completely, all of the time. This ensures that our solutions meet the highest standards of your requirements. Our products and systems can be placed throughout your aircraft cabin, from aisles and galleys to lavatories and seats. We help you create the ideal system for your aircraft, or perhaps that one special part to complete your existing system. We have been a competent business partner in the challenging aviation industry since 1997. We have already started working on tomorrow's aviation technologies because we keep our eyes moving forward.

Our competency centres:



**Light &
Mechanics**



Cabin Networks



Controls



Special & VIP



Power



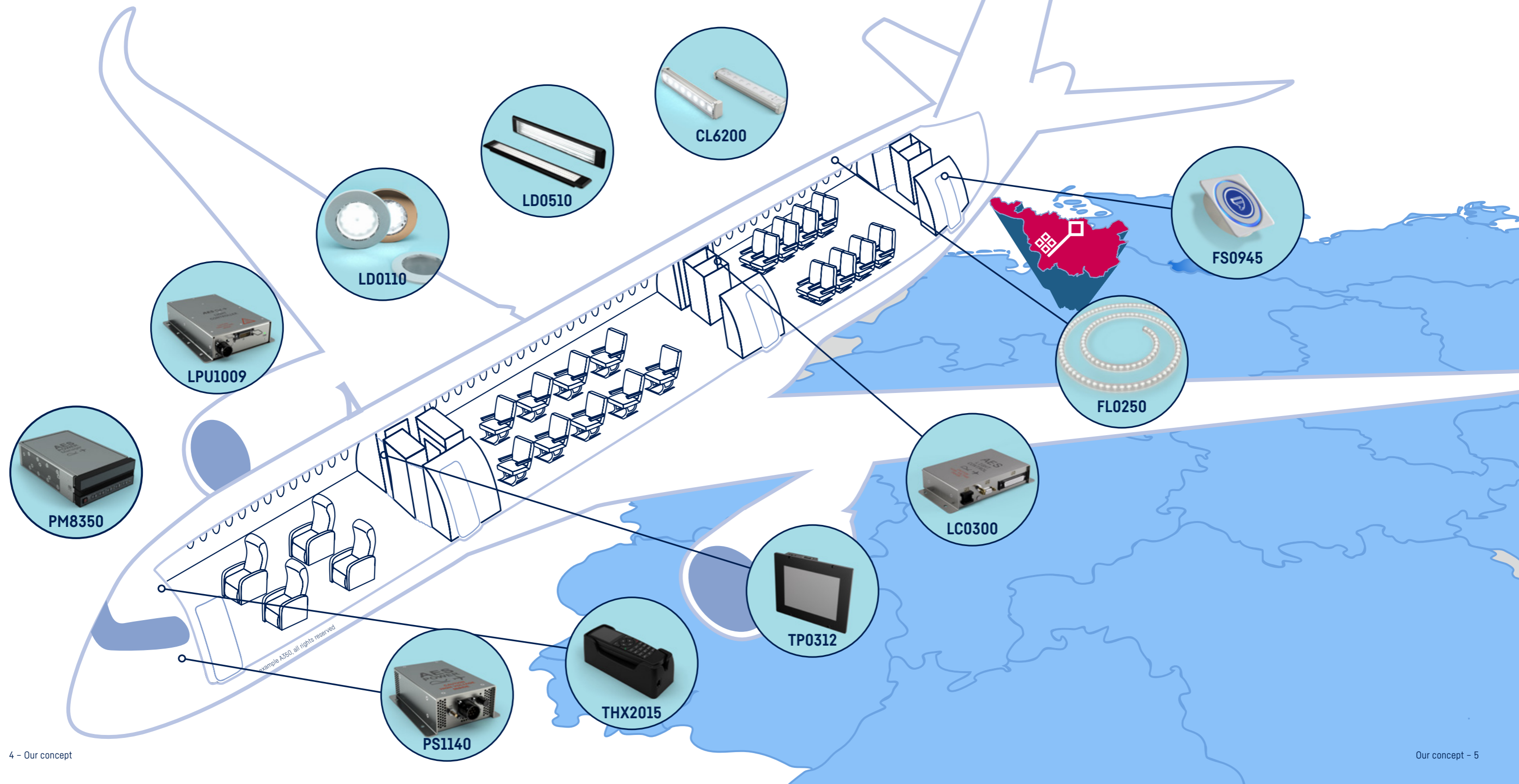
**Electrical
Engineering**

Our concept: products and systems that match your requirements!

We create smart solutions for aircraft interiors, both electrical and electronic, for environments with a compact, limited installation space. These challenging settings adhere to our customers' individual requirements. Our extensive design and engineering ability is the groundwork for our integrated aircraft products for lighting, power management, control, and telecommunications systems. We are a valued partner for aviation products and system design, offering a vast portfolio of services and long-term support. These include planning and project management, devel-

opment, production, integration, and solutions for both our commercial and our space and maritime clients. Our final assembly of our equipment forward product maintenance quality of our aircraft engi-

other services. We design custom, target-oriented aviation and VIP/private jet customers, along with, Our reliable in-house production completes the ment, components, and systems. Moreover, straight-helps prevent malfunctions and costly downtime. The engineering products is valued by our customers worldwide.



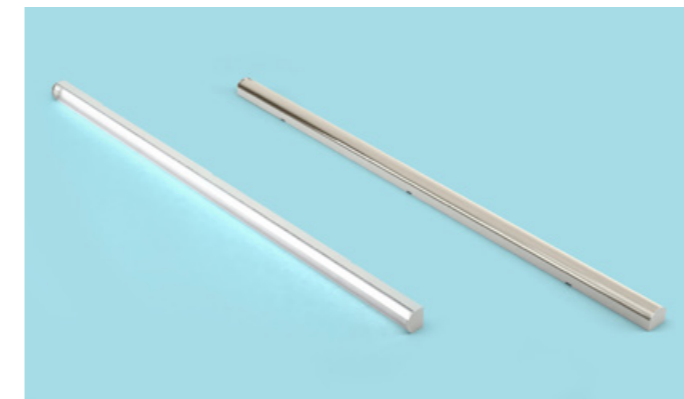
Enlightening your passengers...



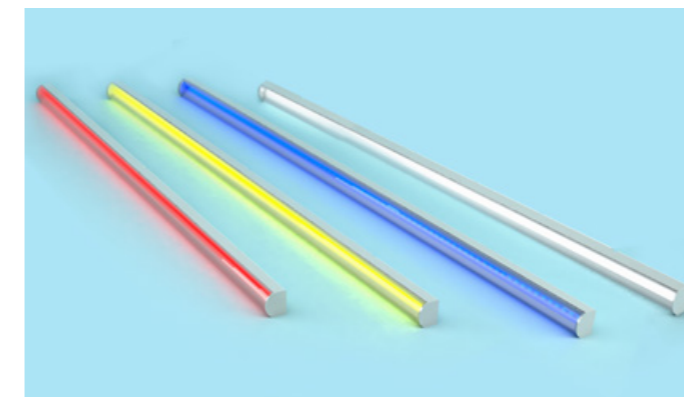
Light not only enables us to see things, but it influences our thoughts and feelings and may even affect our health. Light plays an essential part of our everyday lives and even more so when flying.

AES primarily develops and produces aircraft lighting for various applications, with a more detailed focus on LED aircraft lighting. Over time, this has evolved into close working relationships with some prominent LED manufacturers, allowing us access to the latest data and LED developments. As a result, we have extensive knowledge about how LEDs behave in diverse operating and environmental conditions. Today, we can create durable lighting with consistent light quality, incorporating these advantages into other product devel-

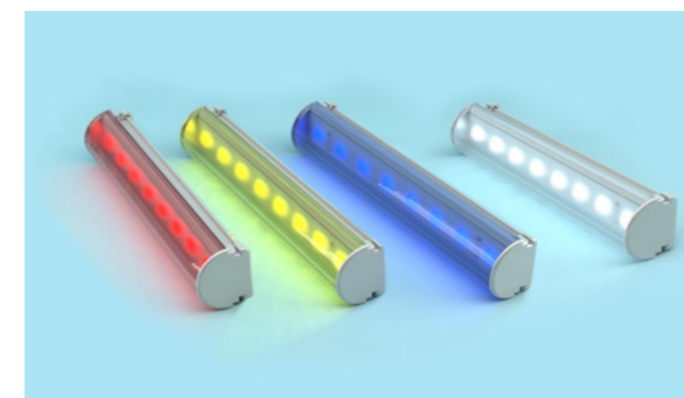
opments. Naturally, we meet the requirements of the major aircraft manufacturers in relation to our materials and their attributes, such as corrosion resistance, resilience to aggressive media, and flammability levels. This means our engineers prepare design calculations and conduct analyses, to ensure our construction is sound [e.g. thermal analyses, strength calculations, FEM and reliability analyses, considering EMV requirements].



| CL6000 LED Ceiling Light | |
|--|---|
| designed for various types of Airbus and Boeing aircraft | |
| + colour | cool white and warm white |
| + voltage | 28 V DC or 115 AC |
| + consumption | 8 15 22 29.5 VA/W |
| + dimensions | 292 566 873 1180 x 32 x 32.2 mm (l/w/h) |
| + weight | 0.17 0.3 0.45 0.6 kg |
| + fully qualified i.a.w. RTCA-DO160 | |
| BR6005/BR6008 Brackets [*brackets add 2 mm to the width and height] | |

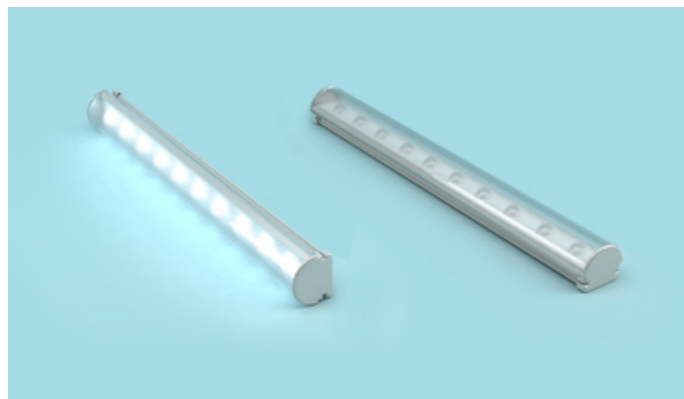


| CL6050 LED Ceiling Light | |
|--|---|
| designed for the Airbus A350 | |
| + colour | cool white, warm white and RGB+W |
| + voltage | 28 V DC or 115 AC |
| + consumption | 8 15 22 29.5 VA/W |
| + dimensions | 292 566 873 1180 x 32 x 32.2 mm (l/w/h) |
| + weight | 0.17 0.3 0.45 0.6 kg |
| + fully qualified i.a.w. RTCA-DO160 and ABD0100 | |
| BR6005/BR6008 Brackets [*brackets add 2 mm to the width and height] | |

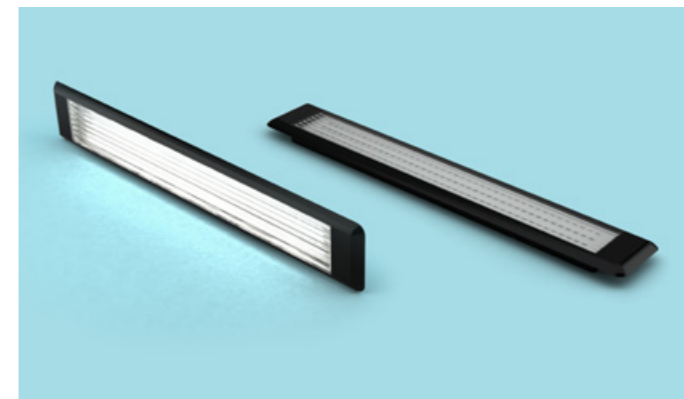


| CL6200 RGB+W LED Ceiling Light | |
|--|---|
| designed for various types of Airbus and Boeing aircraft | |
| + colour | cool white, warm white and RGB+W |
| + voltage | 28 V DC |
| + consumption | ca. 18 W per meter |
| + dimensions | ca. 80 - 2000 x 18 x 9 mm (l/w/h - length in steps of 25,4 mm) |
| + weight | ca. 430g per meter |
| + fully qualified i.a.w. RTCA-DO160 and ABD0100 | |
| WLC2407 Bracket [*brackets add 2 mm to the width and height] | |

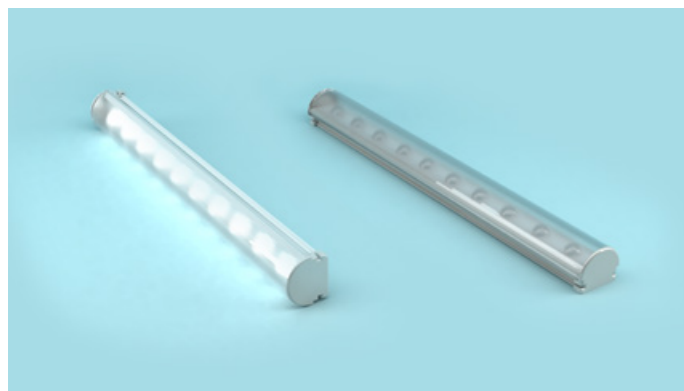




| LWL1008 | LED Ceiling Light |
|--|---|
| designed for various types of aircraft | |
| + colour | white - approx. 3000, 3500 or 4000 Kelvin |
| + voltage | 28 V DC |
| + consumption | ca. 25 W per meter |
| + dimensions | ca. 80 – 2000 x 18 x 9 mm (l/w/h – lenght in steps of 25,4 mm) |
| + weight | ca. 430g per meter |
| + fully qualified i.a.w. RTCA-DO160 | |
| WLC2407 Bracket [*brackets add 2 mm to the width and height] | |



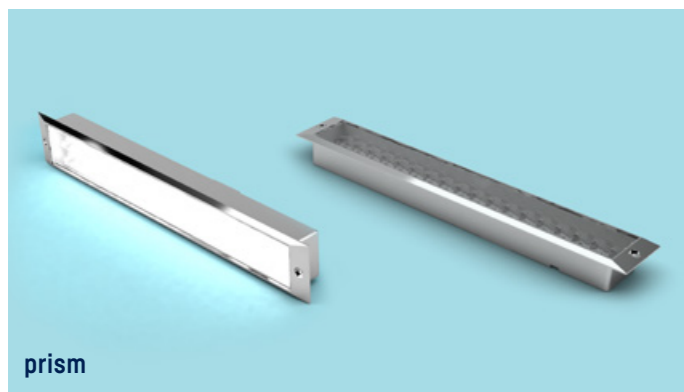
| LD0510 | LED Work Light |
|---|-------------------------------------|
| designed for various types of Airbus and Boing aircraft | |
| + colour | white - approx. 4700 or 8000 Kelvin |
| + voltage | 28 V DC or 115 V AC / VF 360-800 Hz |
| + consumption | max. 6 W |
| + dimensions | 282 x 42 x 15/45 mm (l/w/h) |
| + weight | max. 185 g |
| + fully qualified i.a.w. RTCA-DO160 | |
| lens options available: prism, facet, diffuse and clear | |
| lamp covers available in various colours/finishes | |



| LWL2407 | LED Ceiling Light |
|--|---|
| designed for various types of aircraft | |
| + colour | white - approx. 3000, 3500 or 4000 Kelvin |
| + voltage | 28 V DC |
| + consumption | ca. 25 W per meter |
| + dimensions | ca. 80 – 2000 x 18 x 9 mm (l/w/h – lenght in steps of 25,4 mm) |
| + weight | ca. 430g per meter |
| + fully qualified i.a.w. RTCA-DO160 | |
| WLC2407 Bracket [*brackets add 2 mm to the width and height] | |



| LD0100 | LED Spotlight |
|---|-------------------------------------|
| designed for various types of Airbus aircraft | |
| + colour | white - approx. 4700 or 8000 Kelvin |
| + voltage | 28 V DC or 115 V AC / VF 360-800 Hz |
| + consumption | max. 2.8 W |
| + dimensions | 26 mm (15 mm inst. depth) x 75 mm Ø |
| + weight | 59 g (lens and cover included) |
| + fully qualified i.a.w. RTCA-DO160 | |
| lens options available: facet or diffuse | |




| LD0500 | LED Work Light |
|---|-------------------------------------|
| designed for various types of aircraft | |
| + colour | white - approx. 4700 or 8000 Kelvin |
| + voltage | 28 V DC or 115 V AC / VF 360-800 Hz |
| + consumption | max. 6 W |
| + dimensions | 282 x 42 x 23/53 mm (l/w/h) |
| + weight | max. 185 g |
| + fully qualified i.a.w. RTCA-DO160 | |
| lens options available: prism, facet or diffuse | |

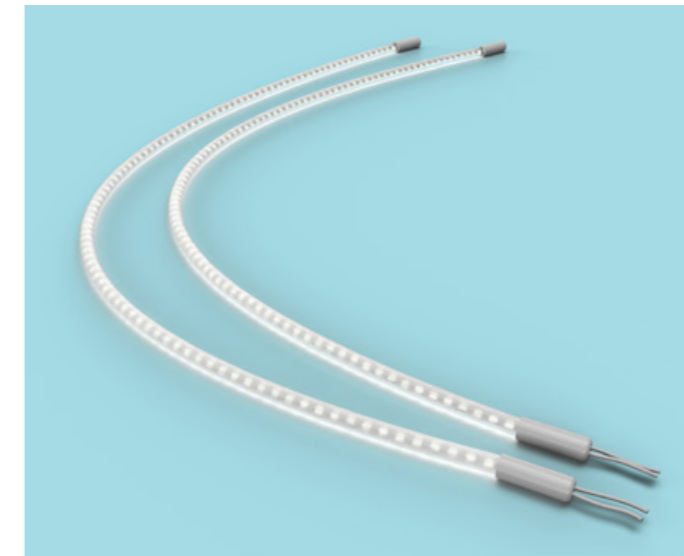



| LD0110 | LED Spotlight |
|---|--|
| designed for various types of Airbus aircraft | |
| + colour | white - approx. 2700 K, 4000 K or 6500 K |
| + voltage | 28 V DC or 115 V AC / VF 360-800 Hz |
| + consumption | max. 2.8 W / 3 VA |
| + dimensions | 15 x 75 mm Ø (10 mm inst. depth) |
| + weight | 69 g |
| + fully qualified i.a.w. RTCA-DO160 | |
| LC0111 Lamp Cover- available in various colours or metal coatings | |






| LE0122 | LED Spotlight |  |
|---|---|---|
| designed for various types of aircraft | | |
| + colour | white - 4000, 5000, 6000 or 8000 Kelvin | |
| + voltage | 28 V DCC | |
| + consumption | max. 4.2 W | |
| + dimensions | 41 x 61 mm Ø [46 mm inst. depth] | |
| + weight | 85 g (housing and cover excluded) | |
| + fully qualified i.a.w. RTCA-D0160 | | |
| LH0127 Ultem® Housing LC0128/29 Covers Covers lens: diffuse | | |




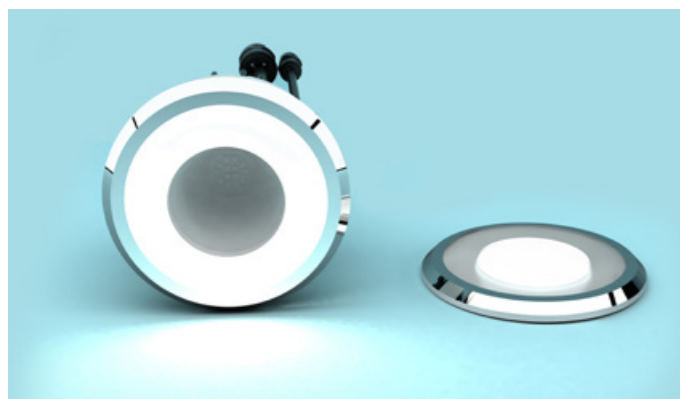
| LFL9004 | Low Floor Light |  |
|---|---|---|
| designed for various types of Airbus aircraft | | |
| + specially designed to highlight bars, stairs and art etc. | | |
| + colour | white - approx. 4.700 and 8.000 Kelvin | |
| + voltage | 28 V DC | |
| + consumption | 14 W per meter | |
| + dimensions | 500 - 5.000 x 10 mm Ø bending radius max. 200 mm | |
| + weight | 100 g per meter | |




| LE0125 | LED RGB Spotlight |  |
|--|---|---|
| designed for various types of aircraft | | |
| + colour | RGB - 16.7 million light colours (24 bit) | |
| + voltage | 28 V DCC | |
| + consumption | max. 5 W without interface cable max. 6.5 W with VB0130-00 | |
| + dimensions | 41 x 61 mm Ø [46 mm inst. depth] | |
| + weight | 85 g (housing and cover excluded) | |
| + fully qualified i.a.w. RTCA-D0160 | | |
| LH0127 Ultem® Housing LC0128/29 Covers lens: diffuse | | |



| ML0970 | Lavatory Mirror w. Integrated Light |  |
|------------------------------|-------------------------------------|---|
| designed for the Airbus A350 | | |
| + colour | approx. 4000 K | |
| + voltage | 28 V DC | |
| + current | max. 0.25 A | |
| + dimensions | 30 mm x 171 mm Ø | |
| + weight | 300 g | |
| + extra info | magnification factor 3 | |

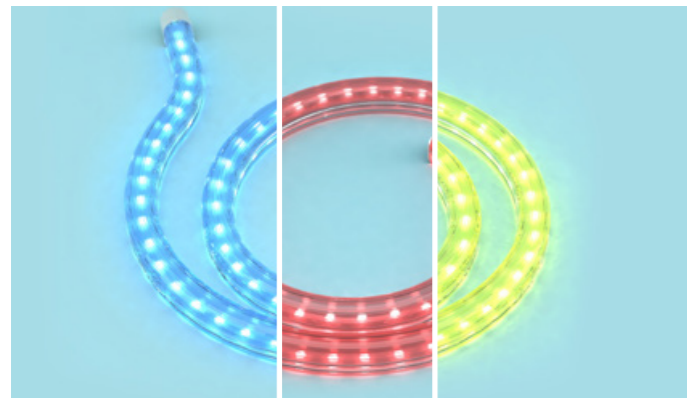
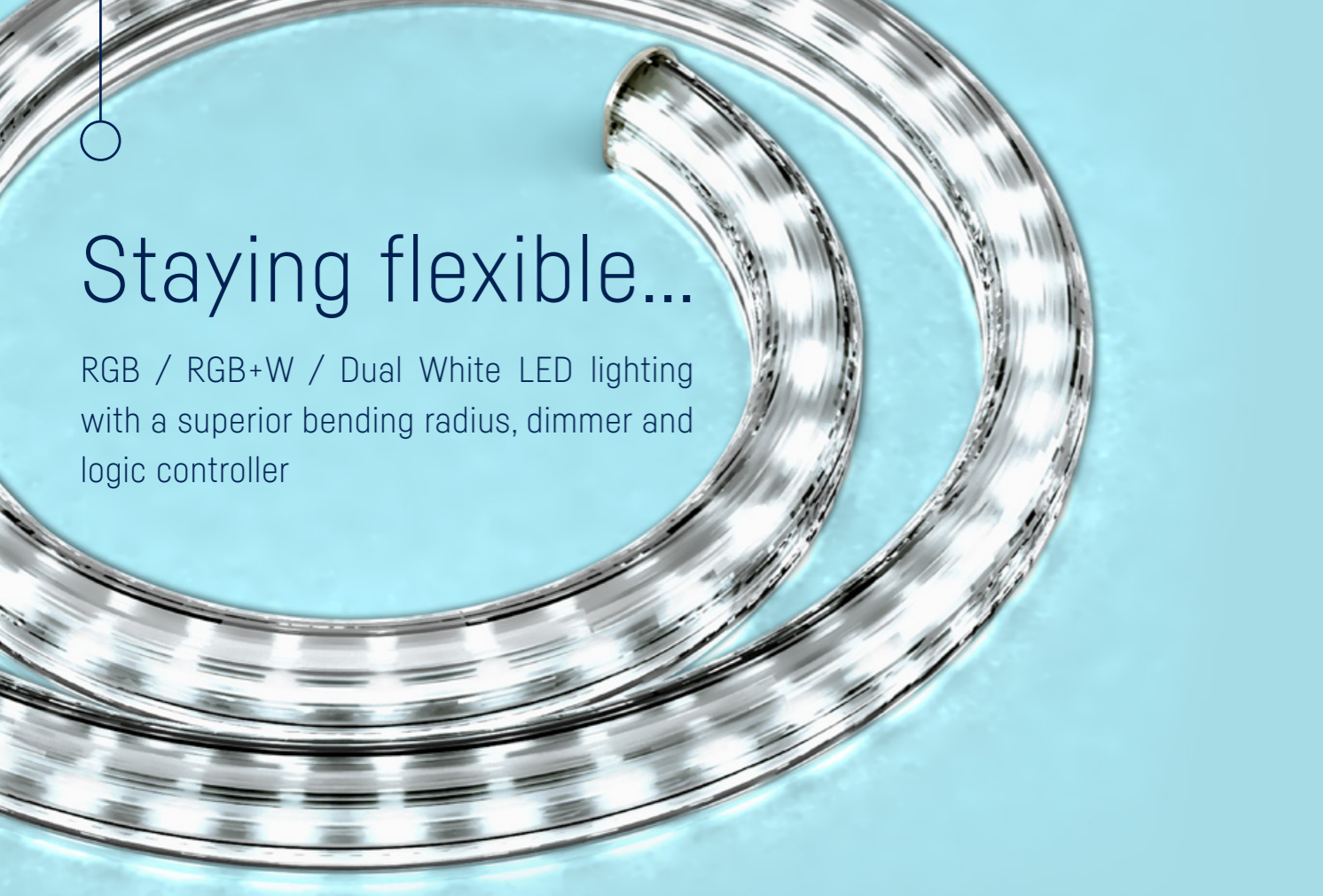


| LE0126 | LED RGB (+W) Spot & Emergency Light |  |
|---|---|---|
| designed for various types of aircraft | | |
| + colour | spotlight: single/dual white LED cluster opt. RGB, RGB+W + 16.7 million light colours (24 bit) emergency light: single white, optional single colour LEDs in R/G/B | |
| + voltage | spotlight: 28 V DC emergency light: 6 V DC / 28 V DC | |
| + consumption | spotlight: max. 5.5 W emergency light: max. 1.6 W / 1.5 W | |
| + dimensions | 35 mm [inst. depth] x 56 mm Ø | |
| + weight | 120 g [175 g housing and cover included] | |
| LH0127 Ultem® Housing LC0128/29 Covers Covers lens: center - half clear (spotlight), outer ring - diffuse (emergency light) | | |



Staying flexible...

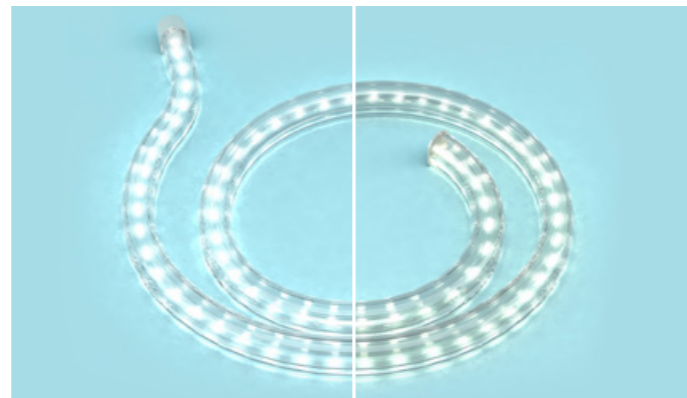
RGB / RGB+W / Dual White LED lighting with a superior bending radius, dimmer and logic controller



| FL0230 | Flexible RGB Decor Light |  |
|------------------------------|--|---|
| designed for the Airbus A350 | | |
| + colour | RGB - 16.7 million light colours (24 bit) | |
| + voltage | 28 V DC | |
| + consumption | max. 10 W per meter | |
| + dimensions | 180 base unit x 18 x 15 mm + 120 mm per ext. up to 4980 mm (l/w/h) | |
| + weight | base 75 g + 25 g per extension | |



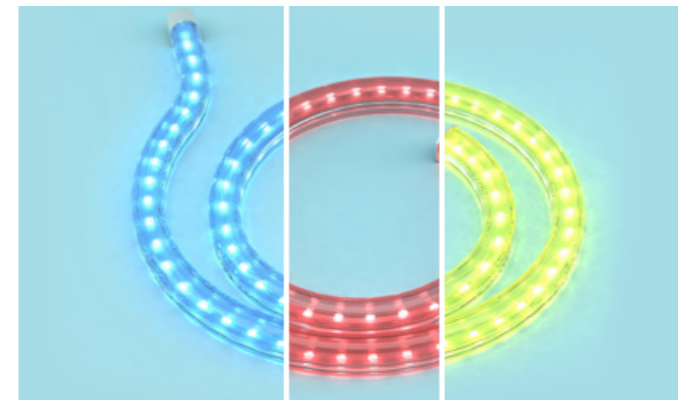
BR0241- brackets add 2 mm to the width and height




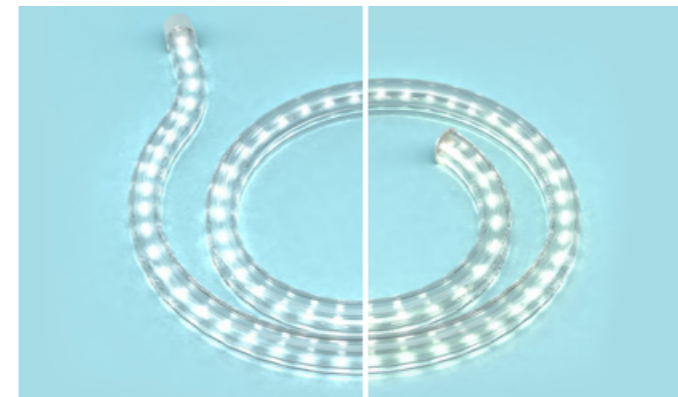
| FL0235 | Flexible Dual White Decor Light |  |
|------------------------------|--|---|
| designed for the Airbus A350 | | |
| + colour | Dual White - adjustable from 6500 K to 2700 K | |
| + voltage | 28 V DC | |
| + consumption | max. 10 W per meter | |
| + dimensions | 180 base unit x 18 x 15 mm + 120 mm per ext. up to 4980 mm (l/w/h) | |
| + weight | base 75 g + 25 g per extension | |




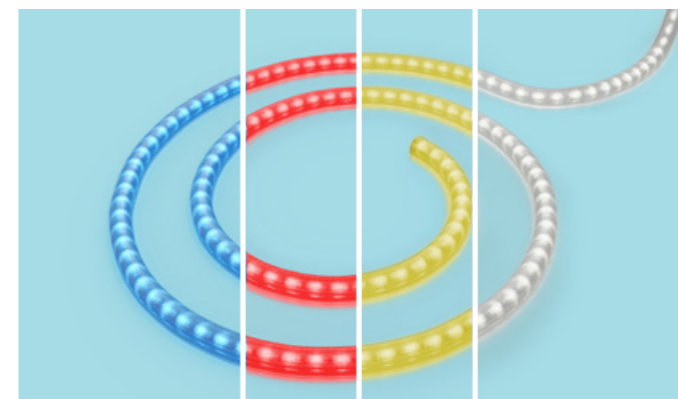
BR0241- brackets add 2 mm to the width and height




| FL0240 | Flexible RGB Decor Light |  |
|--|--|---|
| designed for various types of Airbus aircraft | | |
| + colour | RGB - 16.7 million light colours (24 bit) | |
| + voltage | 28 V DC | |
| + consumption | max. 10 W per meter | |
| + dimensions | 180 base unit x 18 x 15 mm + 120 mm per ext. up to 4980 mm (l/w/h) | |
| + weight | base 75 g + 25 g per extension | |
| BR0241 Bracket [*brackets add 2 mm to the width and height] | | |

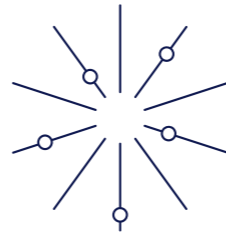


| FL0245 | Flexible Dual White Decor Light |  |
|--|--|---|
| designed for various types of Airbus aircraft | | |
| + colour | white - adjustable from 6500 K to 2700 K | |
| + voltage | 28 V DC | |
| + consumption | max. 10 W per meter | |
| + dimensions | 180 base unit x 18 x 15 mm + 120 mm per ext. up to 4980 mm (l/w/h) | |
| + weight | base 75 g + 25 g per extension | |
| BR0241 Bracket [*brackets add 2 mm to the width and height] | | |



| FL0250 | Flexible RGB+W Decor Light |  |
|--|--|---|
| designed for various types of Airbus aircraft | | |
| + colour | RGB+W: up to 16.7 million light colours (24 bit) | |
| + voltage | 28 V DC | |
| + consumption | max. 10 W per meter | |
| + dimensions | 132 base unit x 12 x 16.4 mm + 112 mm per ext. up to 5060 mm (l/w/h) | |
| + weight | base 107 g + 112g per extension | |
| BR0251 Bracket [*brackets add 2 mm to the width and height] | | |

Taking control...



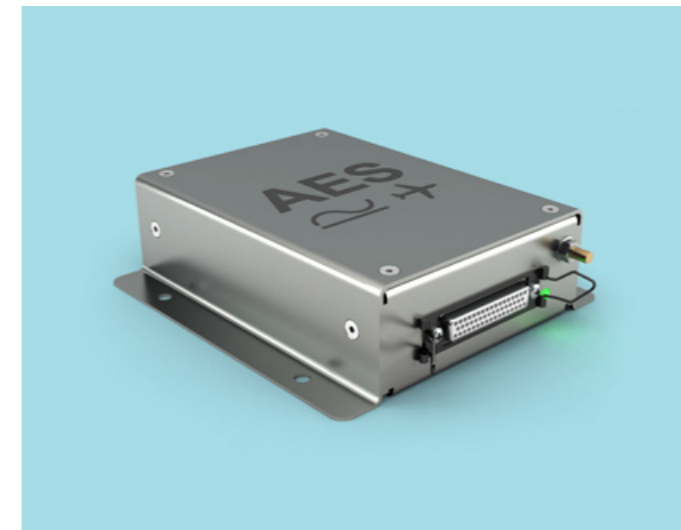
Luminance, colour, temperature, humidity, volume... We give you the control!

Over the past 25 years AES has developed several products, some controlled per microcontroller and others using programmable logic (e.g. FPGA). We employ these products in a broad range of applications. The move to digitally controlled products began with the RGB spotlight for colour lighting applications. The spotlight features a 32-bit microcontroller, which regulates and monitors light output while software compensates for colour deviations caused by operating temperature and ageing. AES developed and documented the embedded software in accordance with the RTCA DO-178B standard (Software Considerations in Airborne Systems and Equipment Certification). A major show-piece within the AES lighting systems is our configurable RGBW Light Controller, developed and approved for various types of aircraft. We tailor the light controller functions to meet customer requirements, using application specific software and parameter configurations. This flexibility makes the light controller a ver-

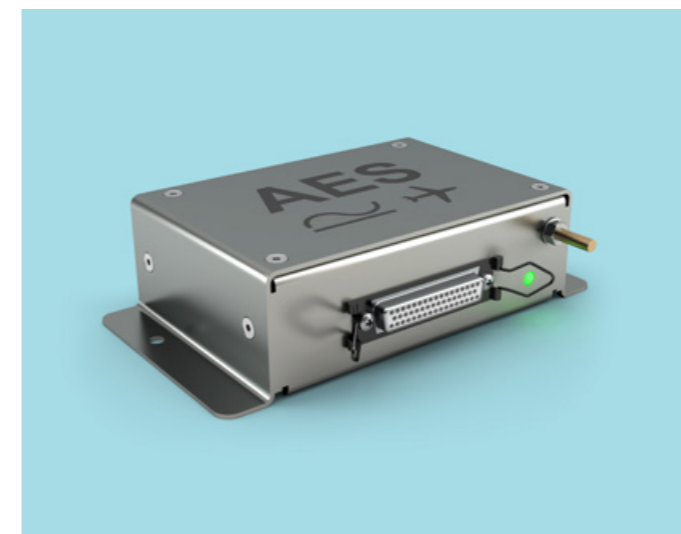
satile control device for AES LED lighting products. One of our earlier customer projects involved the hardware and software design and development of a complex component for an in-flight entertainment (IFE) system. This included the integration of a commercial Gigabit Ethernet switch module. The next generation of this component will feature optical 10 Gigabit Ethernet ports to support high-bandwidth IFE backbone connections. In another project, AES designed and developed a custom water control system for a VIP aircraft. The system consisted of a main controller unit and touch screen computer serving as an interface to communicate over a serial data bus. Rather than software, programmable logic drives the core functions of the main controller. This allowed it to meet all the requirements, e.g. controlling many valves simultaneously. Other existing and future projects address the areas of power management and digitally controlled power supplies.



| BIU0045 Bus Interface Unit | |
|----------------------------|--|
| | designed for various types of aircraft |
| + voltage | 28 V DCC |
| + consumption | max. 112 W |
| + dimensions | 215 x 172 x 44 mm (l/w/h) |
| + weight | 1.2 kg |
| + fully qualified i.a.w. | RTCA-DO160 |

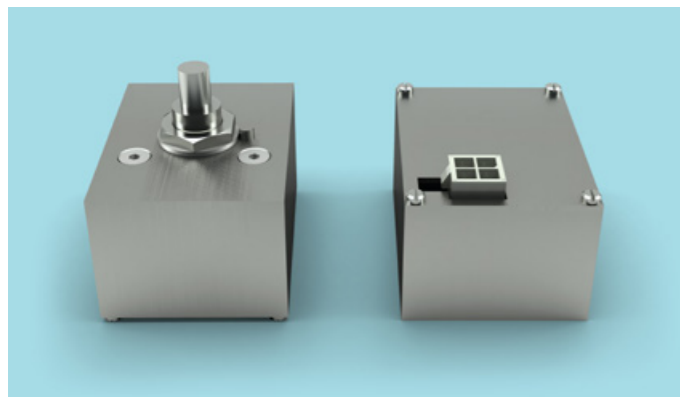


| DD0290 PWM Dimmer | |
|-------------------|---|
| | designed for various types of Airbus aircraft |
| + dimensions | 133 x 125 x 39.5 mm (+ 17.5 mm ground bolt) (l/w/h) |
| + in voltage | 28 V AC for PNR DD0290-000 115 V AC for PNR DD0290-100 / VF 360-800 hz |
| + in current | max. 2.2 A @ 28 V AC 0.45 A @ 115 V AC |
| + out voltage | 28 V PWM (pulse wide modulated) |
| + out current | max. 1.1 A |
| + weight | 700 g |



| DD0295 PWM Dimmer | |
|-------------------|--|
| | designed for various types of Airbus aircraft |
| + dimensions | 80 x 115 x 39.5 mm (+ 15 mm ground bolt) (l/w/h) |
| + in voltage | 28 V DC |
| + in current | max. 1.2 A |
| + out voltage | 28 V PWM (pulse wide modulated) |
| + out current | max. 1.1 A |
| + weight | 200 g |





| DP0299 Control Potentiometer | |
|---|---|
| designed & approved for all Airbus aircraft | |
| + dimensions | 63 x 49 x 26.2 mm (l/w/h) |
| + voltage | max. 38 V DC |
| + current | max. 3.8 mA |
| + consumption | max. 0.15 W |
| + weight | 75 g* 80 g** |
| + options available: | DP0299-000 - 1 x 10 kΩ, log* DP0299-001 - 1 x 10 kΩ, lin* DP0299-002 - 2 x 10 kΩ, lin** |



MU0235 Memory Unit for light controllers included



| LC0300-02 4 Channel Light Control System | |
|---|--|
| designed & approved for for various types of Airbus air | |
| + dimensions | 209 x 121 x 60 mm (l/w/h) |
| + voltage | in: 115 V AC VF 360 - 800 Hz out: 4 x 28 V PWM (pulse wide modulated) |
| + current | in: approx. 1.45 A |
| + power | out: 140 W |
| + connector | ABS1019 [D-Sub-9 PIN] or ABS1145 [D-Sub-50 PIN] |
| + weight | 1.42 kg |



MU0235 Memory Unit for light controller included



| LC0300-00 4 Channel Light Control System | |
|--|---|
| designed & approved for for various types of Airbus aircraft | |
| + dimensions | 209 x 151 x 40 mm (l/w/h) |
| + voltage | in: 115 V AC VF 360 - 800 Hz out: 4x 28 V PWM (pulse wide modulated) |
| + current | in: approx. 0.3 A |
| + power | out: 30 W |
| + connector | ABS1019 [D-Sub-9 PIN] or ABS1145 [D-Sub-50 PIN] |
| + weight | 620 g |



MU0325 Memory Unit for light controllers included



| LC0320 8 Channel Light Control System | |
|---|--|
| designed for various types of Airbus aircraft | |
| + dimensions | 209 x 115 x 40 mm (l/w/h) |
| + voltage | in: 28 V DC out: 8 x 28 V PWM (pulse width modulated) |
| + current | in: max. 5.1 A out: max. 5 A |
| + connector | ABS1145 [D-Sub-9 PIN] or ABS1145 [D-Sub-50 PIN] |
| + weight | 470 g [+20 g memory unit] |



MU0235 Memory Unit for light controller included



| LC0300-01 4 Channel Light Control System | |
|--|---|
| designed & approved for for various types of Airbus aircraft | |
| + dimensions | 209 x 151 x 40 mm (l/w/h) |
| + voltage | in: 28 V DC out: 4 x 28 V PWM (pulse wide modulated) |
| + current | in: approx. 5 A |
| + power | output 140 W |
| + connector | ABS1145 [D-Sub-9 PIN] or ABS1145 [D-Sub-50 PIN] |
| + weight | 470 g |



| LPU1009 LED Power and Control Unit | |
|------------------------------------|---|
| designed for all types of aircraft | |
| + dimensions | 220 x 170 x 50.6 mm (l/w/h) (236 mm connectors included) |
| + voltage | in: 115 V AC / VF 360 - 800 Hz out: 28 V DC |
| + current | in: 4.3 A out: 28 V DC |
| + power | max. 400 W |
| + connector | MS24308-4-3 [D-Sub-25P PIN] |
| + weight | 1.5 kg |





CU8420 Multi-Purpose Control Unit



designed for various types of aircraft

- + dimensions 145 x 204 x 35 mm (l/w/h)
- + voltage 2 x 28 VDC power outputs
- + weight 950g
- + features multi-purpose control unit with a modular design for maximum flexibility. The CU8420 can employ numerous modules with special functions. This is determined by the performance demand and number of interfaces required.



TP0312 Cabin Control Touch Panel

designed for various types of aircraft

- + dimensions 288 x 236 x 73.2 mm (l/w/h)
- + voltage 28 VDC
- + weight 2300g
- + features call display and call management
general lighting
switches and control
white and RGB lighting control
optional: integration of custom-made features



FS0945-00 manual

FS0945-10 touchless

FS0945 Lavatory Flush Switch, manual and touchless

designed for all Airbus aircraft

- + colour/wave blue=470 nm | amber=590 nm | white=6000 K
- + dimensions front: 86 x 86 x 33.5 mm (l/w/h) | back: Ø 84 mm
- + voltage 28 V DC
- + current max. 6 W idle per meterax. 8 W active
- + weight 320 g (foil and cover included)

FF0946 Flush Switch Foil: can be custom-made for any airline design
FC0947 Flush Switch Cover: available in several colours and finishes



Visit us on www.aes-aero.com
We create solutions.

Powering your systems...

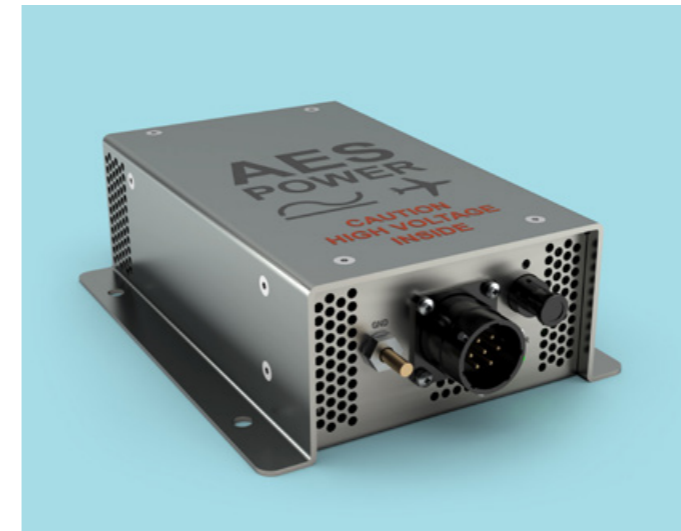


Power, current, charge, voltage, resistance, potential... Making an aircraft fly means providing one, while keeping an eye on the others. We give you the power to do this!

Designing and developing power supplies is just one of our main skills. We benefit from over 25 years of experience in this field.

The first series of our classic power supply products are transformer rectifiers. They are approved for the AIRBUS single-aisle (A318, A319, A320 and A321) and long-range (A330 and A340) aircraft as well as for the Boeing B777. Three different models of the transformer rectifiers supply 140 W, 280 W, and 420 W at 28 V DC. Our second generation power supply products are switch mode power supplies. They are approved for various types of Airbus aircraft, respectively. They function with variable, in addition to, constant frequencies. These are far lighter and more efficient than the classic transformer rectifiers.

Furthermore, they automatically shut down in the event of overheating and restart only when reset. We use the modern technology of resonance transformers for our newest generation of switch-mode power supplies, "Cool & Green Power". This highly efficient product ensures only minor dissipation losses, which preserves low temperatures. As a result, the "Cool & Green Power" source does not require an internal fan. The first version of the "Cool & Green Power" generation supplies 70 W at 28 V DC with more than 90% efficiency. It is approved for the AIRBUS A318, A319, A320, A321, A330, A340, A350, and A380 aircraft. Our current research and development projects are focused on digitally controlled power supplies.



| PS1140 Switch Mode Power Supply | |
|---------------------------------|---|
| | designed for various types of Airbus aircraft |
| + dimensions | 179 x 130 x 54.5 mm (l/w/h) |
| + voltage | in: 96 - 130 V AC / VF 360 - 800 Hz out: 28 V PWM (pulse wide modulated) |
| + current | in: approx. 1.45 A |
| + power | output 140 W |
| + connector | MS24264R14B7PN or EN3646A01412AN |
| + weight | 1.4 kg |



| PS2030 Switch Mode Power Supply | |
|---------------------------------|---|
| | designed for various types of Airbus aircraft |
| + dimensions | 253 x 46 x 43 mm (l/w/h) |
| + voltage | in: 115 V AC / VF 360 - 800 Hz out: 28 V DC |
| + current | in: nom. 0.3 A out: 1.1 A |
| + power | output 30 W |
| + connector | EN3646A01412AN |
| + weight | 500 g |



| PS2070 Switch Mode Power Supply | |
|---------------------------------|---|
| | designed for various types of Airbus aircraft |
| + dimensions | 150 x 130 x 42 mm (l/w/h) |
| + voltage | in: 115 V AC / VF 360 - 800 Hz out: 28 V DC |
| + current | in: nom. 0.7 A out: 2.5 A |
| + power | output 70 W |
| + connector | MS24264R14B7PN or EN3646A01412AN |
| + weight | 600 g |



| PS2500 Switch Mode Power Supply | |
|---|--|
| designed for various types of Airbus aircraft | |
| + dimensions | 235 x 170 x 50 mm (l/w/h) |
| + voltage | in: 96 - 130 V AC / VF 360 - 800 Hz out: 28 V DC |
| + current | in: nom. 4 A out: max. 15 A |
| + power | output 420 W |
| + weight | 600 g |



| TR0280 Transformer Rectifier | |
|--|--|
| designed for various types of Airbus and Boeing aircraft | |
| + dimensions | 247 x 189 x 68 mm (l/w/h) |
| + voltage | in: 115 V AC / 400 Hz single phase out: 28 V DC nom. [26 V DC at 10 A] |
| + current | in: max 3.65 A out: max. 10 A |
| + weight | 2.9 kg |



| PS6120 3-Phase Switch Mode Power Supply | |
|---|---|
| designed for various types of Airbus aircraft | |
| + dimensions | 235 x 170 x 50 mm (l/w/h) |
| + voltage | in: 115 V AC / VF 360 - 800 Hz 3 phase out: 28 V DC |
| + current | in: 4.2 A per phase out: 42 A |
| + power | output 1200 W |
| + weight | 4 kg |



| TR0420 Transformer Rectifier | |
|--|--|
| designed for various types of Airbus and Boeing aircraft | |
| + dimensions | 247 x 209 x 75 mm (l/w/h) |
| + voltage | in: 115 V AC / 400 Hz single phase out: 28 V DC nom. [26 V DC at 15 A] |
| + current | in: max. 5.35 A out: max. 15 A |
| + weight | 3.4 kg |



| TR0140 Transformer Rectifier | |
|--|---|
| designed for various types of Airbus and Boeing aircraft | |
| + dimensions | 180 x 130 x 55 mm (l/w/h) |
| + voltage | in: 115 V AC / 400 Hz single phase out: 28 V DC nom. [26 V DC at 5 A] |
| + current | in: max 1.8 A out: max. 5 A |
| + weight | 1.64 kg |

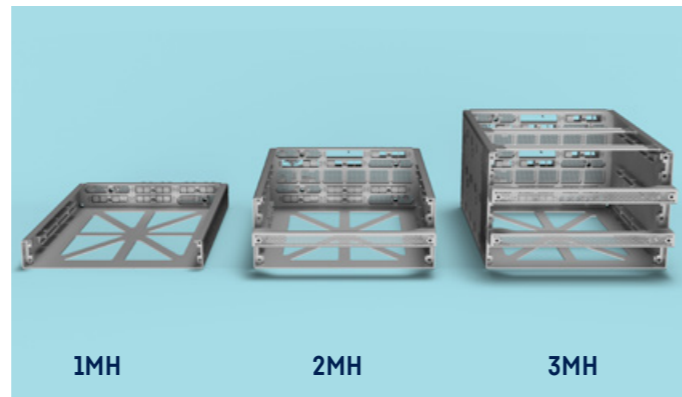


More than just managing...

Our highly efficient Galley Power Management System is a power source, digitally controlled fuse box, light controller, and management tool – all in one!



| PM8350 | Galley Power Management System (2MH) |
|-----------------|--|
| | designed for the Airbus 350 - viable for other aircraft models |
| + colour | alu elox finish alu dark finish |
| + dimensions | 565 x 125 x 312 mm (l/w/h) |
| + voltage | in: 96 - 130 V AC, 3-phase, 360 - 800 Hz out: 115 AC, 3-phase, 360 - 800 hz |
| + current | 2 AC feeder [6 x 43.5 A each phase] |
| + total current | 6 x 43 A |
| + consumption | max. 10 W per meter |
| + weight | 13 kg |



| FR8500 | Modular Frames for Power Manager |
|--------------|--|
| | designed for the Airbus A350 |
| + colour | alu elox finish alu dark finish |
| + dimensions | 1MH: 502.6 x 312 x 50 mm [connectors included] [l/w/h] 2MH: 502.6 x 312 x 125 mm [connectors included] 3MH: 502.6 x 312 x 205 mm [connectors included] |
| + weight | 1MH: ~ 1.6 kg 2MH: ~ 2.6 kg 3MH: ~ 3.95 kg |



| SP8100 | Switch Panel for PM8350 |
|---------------|--|
| | designed for the PM8350 Galley Power Management System |
| + dimensions | 310 x 34 x 48 mm (l/w/h) |
| + voltage | supplied by PM8350 |
| + consumption | provided by PM8350 |
| + weight | 420 g [switches included] |
| | custom-made and vertical options are also available |

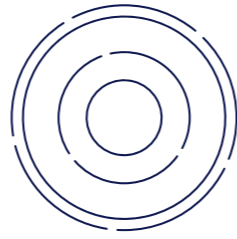


| PM8010 | Power Manager Module |
|---------------|---|
| | designed for the PM8350 Galley Power Management System |
| + dimensions | 483 x 306 x 46.5 mm (l/w/h) |
| + voltage | in: 90-130 V AC / VF 360 - 800 Hz 3 phase out: 115 V AC / VF 360 - 800 Hz 3 phase out: 28 V DC switched - 7 channels |
| + current | in: 2 A/C feeder [6 x 43.5 A each phase] out: 6 x 43.5 A |
| + consumption | 50 A / 48 A |
| + weight | 5.1 kg |



| CM8200 | Configuration Data Storage Module |
|----------------|--|
| | designed for the PM8350 Galley Power Management System |
| + dimensions | 28 x 44 x 28 mm (l/w/h) |
| + installation | internal |
| + consumption | provided by PM8350 |
| + weight | 14 g |

Communicating with everyone and everything...



Smooth communication between the pilots, crew and aircraft, in addition to the passengers and systems must be operational at all times. Our communication products help you do just that!

We have consistently met the rapidly changing technical demands of the aviation industry since the early 1990. At the same time, we have continued to meet our VIP, governmental and corporate customers' requirements.

AES' products are used in various aircraft models including the Airbus single-aisle (A318-A321) aircraft, the long-range and wide-bodied Airbus A330 and A340, as well as, the Boeing Business Jet (BBJ) 737-200 to 800, and the Boeing 777, 747-200, 400 and 8 aircraft. Today, AES' cabin network products include an Ethernet switch unit, a corded VoIP telephone, a

touch controlled display panel and a multi-purpose control unit. Our Ethernet switch unit connects components via LAN allowing for a faster connection with easier access between the components. Our newly developed multi-purpose core unit can be used as a cabin controller, cabin management system or entertainment bridge interface. It is software controlled with numerous exchangeable modules. The number of modules in use is determined by the performance demand and number of interfaces required. The system can be navigated via our PCAP touch display.



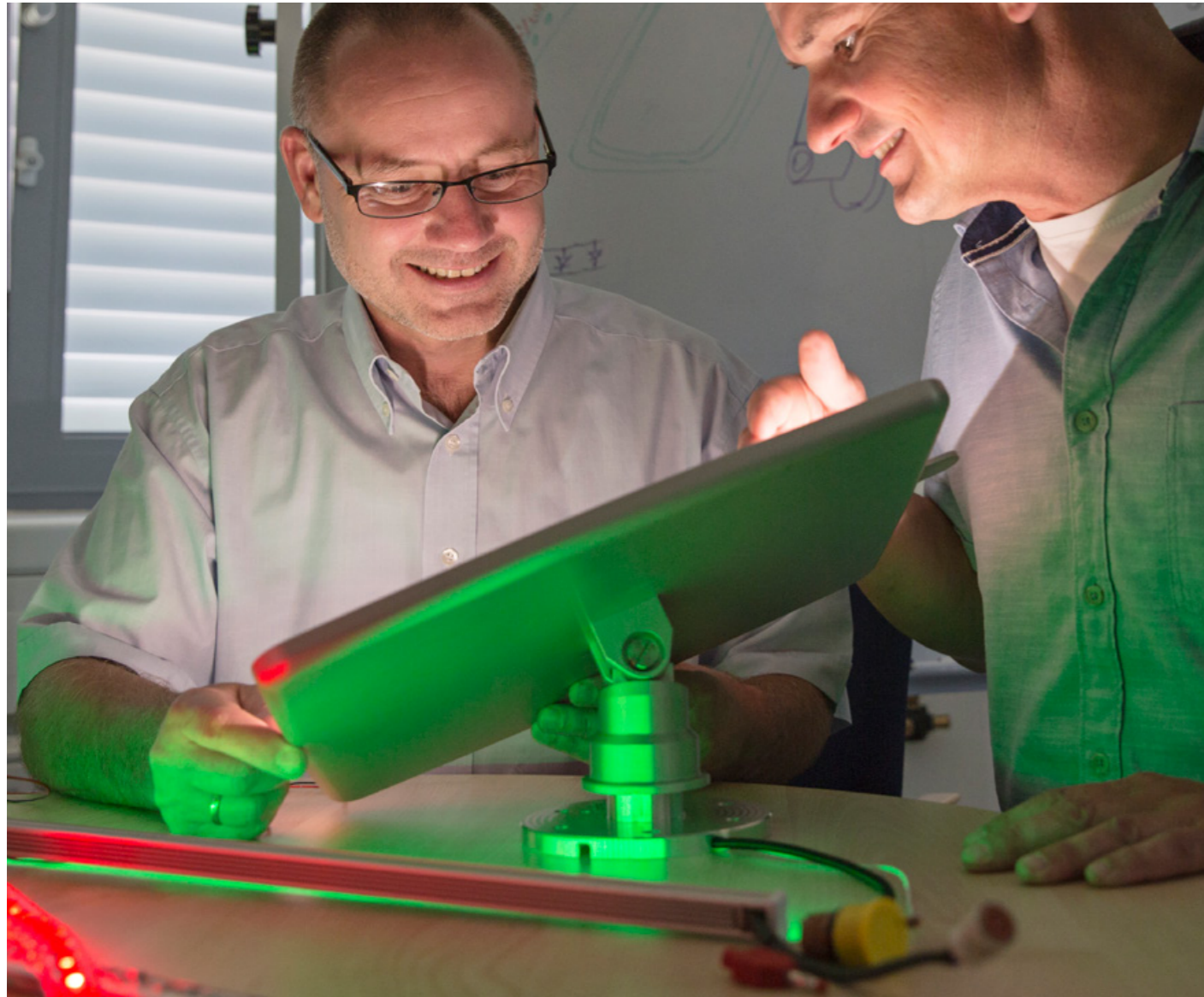
| THX2015 Corded VoIP Telephone | |
|--|--|
| designed for AES' communication system | |
| + colour | anthracite |
| + voltage | 28 V DC 5 W |
| + dimensions | 181 x 68 x 66 mm (l/w/h) |
| + modes | SIP - compatibility mode for 3rd party equipment |
| + weight | 900 g (handset, flex cord & cradle) |
| flex cord is included | |



| ESU2412 Ethernet Switch Unit | |
|------------------------------------|---|
| designed for all types of aircraft | |
| + voltage | 115 V AC / 400 Hz |
| + current | 600 mA |
| + consumption | < 60 W |
| + dimensions | 220 x 317 x 83.5 mm (l/w/h) |
| + modes | SIP- compatibility mode for 3rd party equipment |
| + weight | 2.1 kg |



Going the extra mile ...



Extraordinary solutions for exceptional aircraft - Meeting the requirements for our VIP clients with private and business jets has proven to be a unique and exciting challenge for our engineers. The emphasis of our work in this area is the design and development of custom aircraft cabins. We make it our goal to find the unique parts and systems for each of these aircraft cabins. Innovative solutions, meeting such high-quality standards demand flexibility, speed, and excellent customer relations. These points being the vital factors to our success. We listen closely, identifying individual needs, thinking ahead for you systematically.



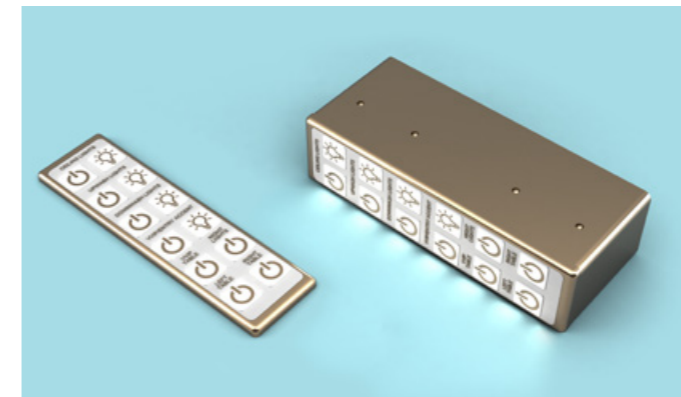
SD0900 OLED Sign Panel



sign with two OLED panels - flat design

- + colour 4000 / 3000 K
- + voltage 28 V DC
- + weight 130 g (without connector)
- + dimensions 78 x 192 x 10 mm (l/w/h)
7 mm installation depth

for installation e.g. in passenger seat arm rests. Multiple layout and finish options available

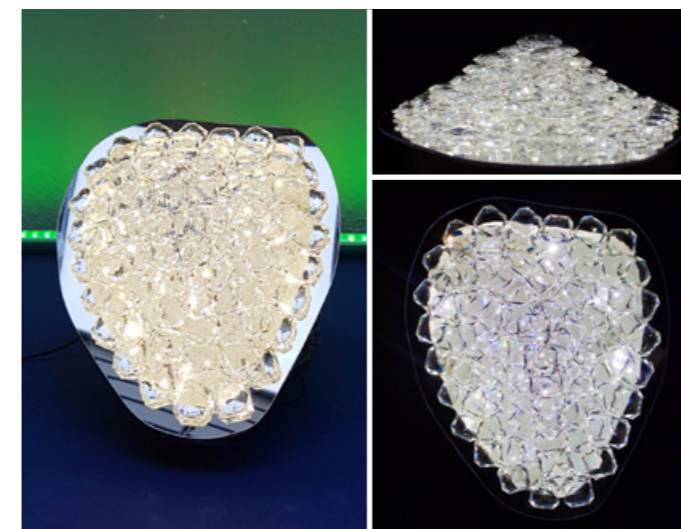
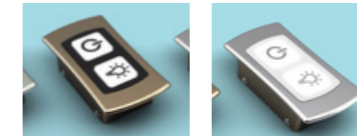


SCP2409/2709 Switch Control Panel

Individually designed switch control panel due to specific customer request. Applicable for various VIP jets and commercial aircraft - 2 sizes: SCP2409 - small | SCP2709 - large

- + colour/finish many options e.g. gold, chrome and brushed nickel
- + voltage 28 V DC
- + weight variable, depending on customer requirements
- + dimensions variable, up to 32 buttons possible,
min. 31.6 x 18 x 34 mm (l/w/h)

for installation e.g. in passenger seat arm rests. Multiple layout and finish options available



GL0980 Swarovski Crystal Lamp "Grape"

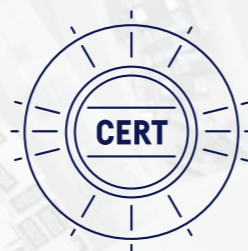


special design study

- + colour crystal clear & chrome mirror polish
- + voltage 28 V DC
- + consumption approx. 12 W (prototype)
- + weight 1.2 kg
- + dimensions front: 250 x 210 x 100 mm (l/w/h) | back: Ø 84 mm

the lamp is made from real Swarovski crystals, which are joined together using a special optical adhesive. It is surrounded by a polycarbonate mirror to intensify its sparkle. An aluminium support houses the light element and its electronics.

Approved and Certified



AES GmbH is an EASA (European Aviation Safety Agency) approved production organization (EASA Part 21G) and EASA approved maintenance organization (EASA Part 145). Our quality management system is certified according to EN 9100. The EASA Part 145 certification authorizes us to service our products. We build our products ourselves – As a result, we are able to offer genuinely seamless after sales support.

Continual improvement means down to the last, smallest detail, while meeting tough standards. Our philosophy is consistent quality and sustainability - quality over price. This distinguishes our company and solutions in the aviation industry - make it simple and do it right!

AES' reliable in-house production completes the final assembly of our equipment, components, and systems. Moreover, straightforward product maintenance helps prevent malfunctions and costly downtime. Our customers worldwide value the quality of our products. Our

Quality Management Department supervises and verifies implementation and compliance with all our processes. These processes are described in our Quality Management Manual, a most essential part of our quality management and assurance.

*»Quality is not an act,
it is a habit.«*

Aristotle

AES Aircraft Elektro/Elektronik System GmbH
Hanna-Kunath-Str. 33 | 28199 Bremen

T. +49 [421] 240 30 - 0
F. +49 [421] 240 30 - 77

www.aes-aero.com | info@aes-aero.com

