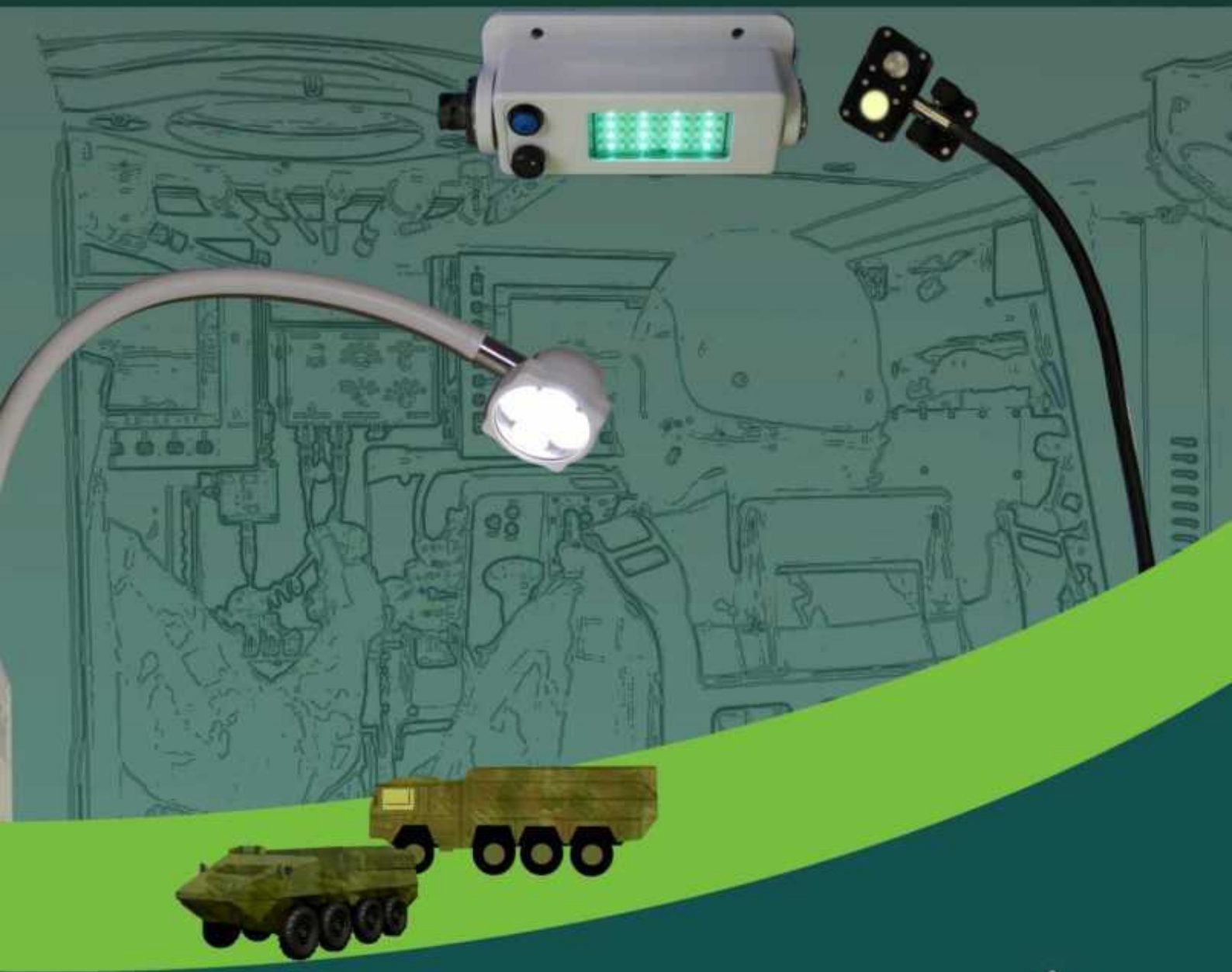
LED-Innenbeleuchtung
LED-Interior Light



für MIL-Fahrzeuge
for MIL-vehicles

PIK-AS
AUSTRIA

Stand: 25.03.2019

Overview

Overview

Since more than 35 years our company PIK-AS Austria specializes in the production and supply of electro technical components (relays, switches, connectors, interior lights).

The interior lights (flexible task lights or dome lights) of PIK-AS Austria are high quality LED-lights for military applications.

They are built to meet or even exceed military standards.

We provide different versions depending on your field of application.

Here you get an overview about our standard product range.

Due to our flexible production and highly experienced technicians, it is easy to customize our products for your needs. Let us know about your special lighting needs.

All mentioned lights can be modified with following functions:

- ➔ **second (blackout) colour: blue / red / green**
- ➔ **backup battery**
- ➔ **low voltage alert**
- ➔ **dimming 1-100%**
- ➔ **customized mounting holes**
- ➔ **customized housing**

Please contact our sales team to find the appropriate product for your needs!

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Technisches Datenblatt – Technical Datasheet	**Flexibles Leselicht PA2310R** **Flexible Map Light PA2310R**	Stand 05/2016

●	Low Voltage Alert	Backup Battery	Dimming

Map Light with Backup Battery Functionality

The Map Light is designed to provide white and blackout light at a medium flood beam angle. It uses multiple LED technology.
The control of the light is enabled by a momentary push button switch located on the product.
The product is designed to provide illumination for a specific cabin or workstation areas.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and power economical light output at an input voltage range of 16-33VDC.
The product is designed to meet the rigorous requirements of military ground vehicle environments.
The product comprises backup battery functionality, active while mains are disconnected or during vehicle power supply failure event.

Features:

* **Spectral Colour** – white and blue
* **Simple mounting** – mounted by 4 screw holes located in the base box
* **Receptacle type** – the unit utilizes a VG95234A-10SL-3PN
* **Dimming control** – light intensity is controllable through a potentiometer
* **Low Voltage Alert** – low voltage visual alert of the vehicle's battery
* **Backup battery** – active during vehicle power supply failure event

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Technisches Datenblatt – Technical Datasheet	**Flexibles Leselicht PA2310R** **Flexible Map Light PA2310R**	Stand 05/2016

●	Low Voltage Alert	Backup Battery	Dimming

Technical data:

Input Voltage	16-33VDC
Input current at 24V	180mA ±10%
Power consumption at 24V	4,3Watts
Input Over Voltage Protection	Included
Input Reverse Voltage Protection	Included
Light source	LEDs
White Light center Luminance at 1m	250 Lux
Dominant Wavelength (Blue)	465 nm
Light Beam Angle (FWHM)	30°
Operating Temperature Range	-40°C to +51°C
Weight	0,93kg
Water sealing	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic interference characteristics	MIL-STD-461E
Built-In EMI RFI Filter, Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
Colour of external housing	Black

Receptacle pin-out

Type – VG95234A-10SL-3PN

PIN	Functional description
A	(+) Active Hatches 1
B	(-) Return
C	(+) Active Hatches 2

Functionality:

Functionality while energizing both pins, Pin A and Pin C

Enables blackout and white light.
Upon energizing both Pin A and Pin C, the indicator LED on the pushbutton starts flickering, indicating that the system is active and backup battery is being charged.
Blackout light is enabled upon short depression of the pushbutton.
A consecutive short depression turns OFF the light.

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Transition from Blackout light to White
Transition from Blackout light to White is enabled only while blackout light is on.
A 3 seconds continuous depression of the pushbutton enables transition to white light.
A consecutive brief push turns OFF the light.

Hatches mode functionality.
Pin A represents active hatches 1 (vehicle's door).
Pin C represents active hatches 2 (vehicle's window).

During white light mode (both pins, Pin A and Pin C, are energized).
Upon door opening (Pin A is disconnected), light will switch immediately to blackout mode.
Upon door closing, light will turn back to white mode.
The same procedure will occur if a window was opened (Pin C is disconnected).

Blackout light mode forced by the commander
Blackout light mode can be forced by a command box located within the vehicle.
The command box may disconnect Pin A or Pin C in order to disable White light.

Light intensity control
Light intensity is controllable by a Potentiometer.
Light intensity is controllable between 1-100% during normal operation.
Light intensity is controllable between 1-100% during Emergency mode operation.

Backup Battery Charging
Upon connecting the Light to mains, the indicator LED on the pushbutton starts flickering at 1 Hz, indicating that the Backup Battery is charging.
When the battery is fully charged, the indicator LED stops flickering and remains lit indicating that the system is active and charged.
When backup battery is defective, the LED flickers rapidly.
During Emergency operation mode the indicator LED on the pushbutton remains unlit.

Backup Battery Functionality (Emergency Mode):
Backup battery is active while mains is disconnected or during vehicle power supply failure event.

OFF to ON:
A short depression of the pushbutton will turn on the lamp in Blackout mode for 5 minutes.

Blackout to OFF:
Once Blackout light is on, a short depression of the pushbutton turns the light OFF.

Blackout to White:
Toggling from Blackout light to White light requires a 3 seconds continuous depression of the pushbutton while blackout light is on.

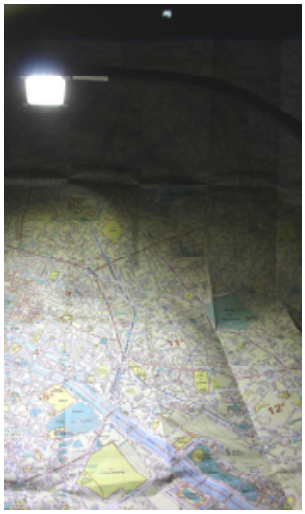
White to OFF:
Once White light is on, a short push on the pushbutton turns the light OFF.

Potentiometer:
Light intensity is controllable from 1% to 100% by a Potentiometer.

Light intensity under Backup Battery Functionality:
White and blackout light intensity is reduced to enable a long use of the internal Backup Battery.

LVD – Low Voltage Detection:
Vehicle's battery low voltage monitoring:

When the vehicle's battery voltage falls below a predetermined value (21,5V) the system automatically shifts to low voltage visual alert as follows:
- White light and blackout light flickers alternately if the white light was lit.
- Blackout light flickers if the blackout light was lit.
- A brief press of the push button suspends the alert for 2 minutes.



Flexible Task Light – Description

Flexible "Goose Neck" Task Light is designed to provide wide beam angle within armored vehicles. The flexible WHITE light LEDs emitter can be rotated and moved about to adjust light direction and location. A latch device is present to attach the "Goose Neck" lamp upon usage completion. The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and power economical light output at an input voltage range of 16VDC…33VDC. Light intensity is controlled from 1% to 100%through a potentiometer. The product comprises an illuminated On-Off button switch. The product is designed to meet the rigorous requirements of military ground vehicle environments.

Features

* **Light color** –The spectral color is white.
* **Simple mounting** – Mounting is achieved by 4 screw holes located in the electronic box.
* **Receptacle type** – The unit utilizes a VG95234A-10SL-3PN receptacle.
* **White Illumination**
  At a distance of 1m from target, the lamp provides a main illumination footprint in an area larger than 1m x 1m with a value greater than 65Lux on 0-0 axis dropping to minimum value of 40Lux at the edges.
* **Dimming** - Dimming is accomplished by a potentiometer

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Technical Specifications

Input Voltage	16-33VDC
Input Current	180mA
Power Consumption at 24V	4.3 Watts
Input Over Voltage Protection	included
Input Reverse Voltage Protection	included
Built-In EMI RFI filter, low noise	MIL-STD-461E
Light source	LEDs
White Light Output at a distance of 1m	65 Lux (6 fc)
Light Beam Angle	100°
Intensity control	1-100%
Operating temperature range	-40°C to +71°C
Dimensions ("Goose Neck" length)	Drawing no. 230001
Weight	770g (1.70lbs)
Immersion Test	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Charac.	MIL-STD-461E
Built-in EMI RFI Filter. Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	White (fine texture)

Receptacle pin-out:

PIN	Functional description
A	(+) 28V
B	(–) Return
C	

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Swivel Dome Light - Description

The IDLS LED based dome light is designed to provide general purpose illumination within armored vehicles. Two operation modes are available, White light mode and Blue light mode.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and economical light output at an input voltage range of 18….32VDC.
The IDLS control circuitry is based on a central microcontroller which controls all functionalities of the module.
Rotation of the light module enables to adjust to a desired light direction.
The product is designed to meet the rigorous requirements of Military ground vehicle environments.

Features

* **Spectral color** – White and Blue
* **Simple mounting** – Mounted by 4 screw holes located in the base plate.
* **Receptacle type** – The unit utilizes a VG95234A-10SL-3PN
* **Dimming control** – Light intensity is controllable through a potentiometer.
* **Low Voltage Alert** – Low Voltage visual Alert of the vehicle's battery.
* Backup Battery **– Active during vehicle power supply failure event.**

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Product No. PA268015 Technical Specifications

Input Voltage	18 – 32 VDC
Input Current at 24V	180mA ±10%
Power Consumption at 24V	4.3 Watts
Input Over Voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light Center Luminance at 1m	65 Lux
Dominant Wave Length	465nm
Light Beam Angle FWHM	180°
Intensity Control	1 – 100%
Operating Temperature Range	-40°C to +51°C
Dimensions (L x W x H) mm	See Drawing
Weight	500 gr. (1.10 lbs.)
Water sealing	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
EMI Characteristics	MIL-STD-461E
Built-In EMI RFI Filter, Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	White (fine texture)

Receptacle pin-out
Type VG95234A-10SL-3PN

PIN No.	Functional Description
A	(+) 28 Active Blackout and White light
B	(-) Return
C	

Functionality:

Upon mains connection to pin A, Blackout light turns on.
Operation mode, White or Blue Light is determined by a pushbutton located on the Dome Light.

Toggling from Blackout light to White ligth
The Dome Light will turn on in Blackout light mode. Toggling form Blackout light to White light requires a 3 seconds continuous depression of the pushbutton while Blackout light is on.
A short depression of the pushbutton will turn back to Blackout Light.
A consecutive depression of the pushbutton will turn Off the light.

Light intensity control
Light intensity is controlled by a Potentiometer.
Controls light intensity from 1 – 100% during normal operation while connected to mains.
Controls light intensity from 1 – 100% during Emergency operation.

Backup Battery Charging Routine
Upon reconnecting Dome Light to mains, the indicator LED on the pushbutton starts flickering at 1Hz, indicating that the Backup Battery is being charged.
When the battery is fully charged, the indicator LED stops flickering and remains lit, indicating that the system is active and charged.
When Backup Battery is defective or empty, indicator LED flickers rapidly.
During emergency operation the indicator LED on the pushbutton remains unlit.

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Backup Battery Functionality (Emergency Mode):

Backup Battery is active while mains is disconnected or during vehicle power supply failure event.

OFF to ON:
A short depression of the pushbutton will turn on the lamp in Blackout light for 5 minutes.

Blackout to OFF:
Once Blackout light is on, a short depression of the pushbutton turns the light OFF.

Blackout to White:
Toggling from Blackout light to White light, requires a 3 seconds continuous depression of the pushbutton while Blackout light is on.

White to OFF:
Once White light is on, a short push on the pushbutton turns the light OFF.

Potentiometer:
Light intensity is controllable between 1% to 100% by a Potentiometer.

Light intensity under Backup Battery Functionality
White and Blackout light intensity is reduced to enable a long use of the internal Backup Battery.

LVD – Low Voltage Detection alert

Vehicle's battery low voltage monitoring**.**

When the vehicle's battery voltage falls below a predetermined value (21.5V) the system automatically shifts to **L**ow **V**oltage **D**etection visual Alert as follows:

- White light and Blackout light flickers alternately if White light was lit.
- Blackout light flickers if the Blackout light was lit.
- A brief press of the push button suspends the alert for 2 minutes.

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Swivel Dome Light - Description

The IDLS LED based dome light is designed to provide general purpose illumination within armored vehicles. Two operation modes are available, White light mode and Blue light mode.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and economical light output at an input voltage range of 18….32VDC.
The IDLS control circuitry is based on a central microcontroller which controls all functionalities of the module.
Rotation of the light module enables to adjust to a desired light direction.
The product is designed to meet the rigorous requirements of Military ground vehicle environments.

Features

* **Spectral color** – White and Blue
* **Simple mounting** – Mounted by 4 screw holes located in the base plate.
* **Receptacle type** – The unit utilizes a VG95234A-10SL-3PN
* **Dimming control** – Light intensity is controllable through a potentiometer.
* **Low Voltage Alert** – Low Voltage visual Alert of the vehicle's battery.
* Backup Battery **– Active during vehicle power supply failure event.**

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Product No. PA268009 Technical Specifications

Input Voltage	18 – 32 VDC
Input Current at 24V	180mA ±10%
Power Consumption at 24V	4.3 Watts
Input Over Voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light Center Luminance at 1m	65 Lux
Dominant Wave Length	465nm
Light Beam Angle FWHM	180°
Operating Temperature Range	-40°C to +51°C
Dimensions (L x W x H) mm	See Drawing
Weight	500 gr. (1.10 lbs.)
Immersion Test	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
EMI Characteristics	MIL-STD-461E
Built-In EMI RFI Filter, Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	Black (fine texture)

Receptacle pin-out
Type VG95234A-10SL-3PN

PIN No.	Functional Description
A	(+) 28 Active Blackout and White light
B	(-) Return
C	

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Functionality:

Upon mains connection to pin A, Blackout light turns on.
Operation mode, White or Blue Light is determined by a pushbutton located on the Dome Light.

Toggling from Blackout light to White light
The Dome Light will turn on in Blackout light mode. Toggling form Blackout light to White light requires a 3 seconds continuous depression of the pushbutton while Blackout light is on.
A short depression of the pushbutton will turn back to Blackout Light.
A consecutive depression of the pushbutton will turn Off the light.

Light intensity control
Light intensity is controlled by a Potentiometer.
Controls light intensity from 1 – 100% during normal operation while connected to mains.
Controls light intensity from 1 – 100% during Emergency operation.

Backup Battery Charging Routine
Upon reconnecting Dome Light to mains, the indicator LED on the pushbutton starts flickering at 1Hz, indicating that the Backup Battery is being charged.
When the battery is fully charged, the indicator LED stops flickering and remains lit, indicating that the system is active and charged.
When Backup Battery is defective or empty, indicator LED flickers rapidly.
During emergency operation the indicator LED on the pushbutton remains unlit.

Backup Battery Functionality (Emergency Mode):

Backup Battery is active while mains is disconnected or during vehicle power supply failure event.

OFF to ON:
A short depression of the pushbutton will turn on the lamp in Blackout light for 5 minutes.

Blackout to OFF:
Once Blackout light is on, a short depression of the pushbutton turns the light OFF.

Blackout to White:
Toggling from Blackout light to White light, requires a 3 seconds continuous depression of the pushbutton while Blackout light is on.

White to OFF:
Once White light is on, a short push on the pushbutton turns the light OFF.

Potentiometer:
Light intensity is controllable between 1% to 100% by a Potentiometer.

Light intensity under Backup Battery Functionality
White and Blackout light intensity is reduced to enable a long use of the internal Backup Battery.

LVD – Low Voltage Detection alert

Vehicle's battery low voltage monitoring**.**

When the vehicle's battery voltage falls below a predetermined value (21.5V) the system automatically shifts to **L**ow **V**oltage **D**etection visual Alert as follows:

- White light and Blackout light flickers alternately if White light was lit.
- Blackout light flickers if the Blackout light was lit.
- A brief press of the push button suspends the alert for 2 minutes.

PA268015 Swivel dome light (white housing)

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Swivel Removable Dome Light with Backup Battery Functionality

The product is designed to provide White and Blackout light at a flood beam angle, it uses multiple LED technology. The control of the light is enabled by a momentary push button switch located on the product.
The product is designed to provide illumination for a specific cabin or workstation areas. The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and power economical light output at an input voltage range of 16-33VDC.
The product is designed to meet the rigorous requirements of military ground vehicle environments.
The product comprises Backup battery functionality, active while mains are disconnected or during vehicle power supply failure event.
Due to its unique design, the light can be disconnected from vehicles power supply, to be used as torch light.

Features
* **Spectral colour** – White and Blue
* **Simple mounting** – Mounted by 2 screw holes.
* **Receptacle type** – The unit utilizes a VG95234A-10SL-3PN, for quick and easy connection
* **Dimming control** – Light intensity is controllable through a potentiometer, 1-100%
* **Low Voltage Alert** – Low Voltage visual alert of the vehicle's battery.
* **Backup battery** – Active during vehicle power supply failure event.

Technical Specifications

Input Voltage	16-33 VDC
Input Current at 24V	180 mA ±10%
Power Consumption at 24V	4.3 Watts
Input Over Voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light center Luminance at 1m	80 Lux
Blue Dominant Wavelength	465nm
Light Beam Angle (FWHM)	100°
Operating Temperature Range	-40°C to +71°C
Weight	0.880Kg
Water sealing	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Characteristics	MIL-STD-461E
Built-In EMI RFI Filter, Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
Colour of housing	White

Receptacle pin-out Type - VG95234A-10SL-3PN

PIN	Functional description
A	(+) 28V Active Hatches 1
B	(–) Return
C	(+) 28V Active Hatches 2

Functionality:

Functionality upon Energizing both Pin A and Pin C of the VG receptacle.
Blackout light or White light is enabled.
Upon energizing both Pin A and Pin C, the indicator LED on the pushbutton starts flickering
Indicating that the system is active and Backup Battery is being charged.
BLUE light is enabled upon short depression of the pushbutton.
A consecutive short depression turns OFF the light.

Transition from BLUE light to White light
Short depression of the pushbutton enables BLUE light,
A 3 seconds continuous depression of the pushbutton changes to White light. A consecutive brief push turns OFF the White light.

Hatches mode functionality
Pin A represents Active Hatches 1 (e.g. vehicle's door).
Pin C represents Active Hatches 2 (e.g. vehicle's window).

During White light mode (both pin Pin A and Pin C are energized).
Upon door opening (Pin A is disconnected), light will switch immediately to Blackout mode - BLUE.
Upon door closing, light will turn back to White mode.
The same procedure will occur if a window was opened (Pin C is disconnected).

Blackout light mode forced by the Commander
Blackout light mode can be forced by a command box located within the vehicle. The command box may disconnect Pin A or Pin C in order to disable White light.

Light intensity control
Light intensity is controlled by a Potentiometer.
Light intensity is controllable between 1 - 100% during normal operation.
Light intensity is controllable between 1 - 100% during Backup Battery operation.

Backup Battery Charging
Upon reconnecting the Dome Light to mains, the indicator LED on the pushbutton starts flickering at 1Hz, indicating that the Backup Battery is being charged.
When the battery is fully charged, the indicator LED stops flickering and remains lit, indicating that the system is active and charged.
When Backup Battery is defective, the indicator LED flickers rapidly.
During Backup Battery operation, the indicator LED on the pushbutton remains unlit.

Backup Battery Functionality (Emergency Mode):

Backup Battery is active while mains is disconnected or during vehicle power supply failure event.

OFF to ON:
A short depression of the pushbutton will turn on the lamp in Blackout mode - BLUE for 5 minutes.

Blackout to OFF:
Once Blackout light is on, a short depression of the pushbutton turns the light OFF.

Transition from BLUE light to White light
Short depression of the pushbutton enables BLUE light,
A 3 seconds continuous depression of the pushbutton changes to White light.
A consecutive brief push turns OFF the White light.

White to OFF:
Once White light is on, a short push on the pushbutton turns the light OFF.

Light intensity under Backup Battery Functionality
White and Blackout light intensity are reduced to enable a long use of the internal Backup Battery.

LVD – Low Voltage Detection alert

Vehicle's battery low voltage monitoring**.**

When the vehicle's battery voltage falls below a predetermined value (21.5V) the system automatically shifts to **L**ow **V**oltage **D**etection visual Alert as follows:

- White light and Blackout light flickers alternately if White light was lit.
- Blackout light flickers if the Blackout light was lit.
- A brief press of the push button suspends the alert for 2 minutes.

Swivel Removable Dome Light with Magnet
Includes Backup Battery Functionality

The product is designed to provide White and Blackout light at a flood beam angle, it uses multiple LED technology.
The control of the light is enabled by a momentary push button switch located on the product.
The product is designed to provide illumination for a specific cabin or workstation areas.
The design utilizes solid state technology and a constant current drive circuit to achieve
a consistent and power economical light output at an input voltage range of 16-33VDC.
The product is designed to meet the rigorous requirements of military ground vehicle environments.
The product comprises Backup battery functionality, active while mains are disconnected
or during vehicle power supply failure event.

Features

* **Spectral color** – White and Blue
* **Simple mounting** – Mounted by 2 screw holes and shall be fastened by magnet while disconnected.
* **Receptacle type** – The unit utilizes a VG95234A-10SL-3PN
* **Dimming control** – Light intensity is controllable through a potentiometer.
* **Low Voltage Alert** – Low Voltage visual alert of the vehicle's battery.
* **Backup battery** – Active during vehicle power supply failure event.

Technical Specifications

Input Voltage	16-33 VDC
Input Current at 24V	180 mA ±10%
Power Consumption at 24V	4.3 Watts
Input Over Voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light intensity at 1m	90 Lux
Blue Dominant Wavelength	465nm
Light Beam Angle (swivel)	180°
Temperature Ranges	-40°C to +71°C
Weight	0.880Kg
Water sealing	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Characteristics	MIL-STD-461E
Built-In EMI RFI Filter, Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	White

Receptacle pin-out
Type - VG95234A-10SL-3PN

PIN	Functional description
A	(+) 28V Active Hatches 1
B	(–) Return
C	(+) 28V Active Hatches 2

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Functionality:

Functionality upon Energizing both Pin A and Pin C of the VG receptacle.
Blackout light or White light is enabled.
Upon energizing both Pin A and Pin C, the indicator LED on the pushbutton starts flickering
Indicating that the system is active and Backup Battery is being charged.
Blue light is enabled upon short depression of the pushbutton.
A consecutive short depression turns OFF the light.

Transition from Blue light to White light
Short depression of the pushbutton enables Blue light,
A 3 seconds continuous depression of the pushbutton changes to White light.
A consecutive brief push turns OFF the White light.

Hatches mode functionality
Pin A represents Active Hatches 1 (vehicle's door).
Pin C represents Active Hatches 2 (vehicle's window).

During White light mode (both pin Pin A and Pin C are energized).
Upon door opening (Pin A is disconnected), light will switch immediately to Blackout light.
Upon door closing, light will turn back to White light.
The same procedure will occur if a window was opened (Pin C is disconnected).

Blackout light mode forced by the Commander
Blackout light mode can be forced by a command box located within the vehicle.
The command box may disconnect Pin A or Pin C in order to disable White light.

Light intensity control
Light intensity is controlled by a Potentiometer.
Light intensity is controllable between 1 - 100% during normal operation.
Light intensity is controllable between 1 - 100% during Backup Battery operation.

Backup Battery Charging
Upon reconnecting the Dome Light to mains, the indicator LED on the pushbutton starts flickering at 1Hz, indicating that the Backup Battery is being charged.
When the battery is fully charged, the indicator LED stops flickering and remains lit, indicating that the system is active and charged.
When Backup Battery is defective, the indicator LED flickers rapidly.
During Backup Battery operation, the indicator LED on the pushbutton remains unlit.

Backup Battery Functionality (Emergency Mode):

Backup Battery is active while mains is disconnected or during vehicle power supply failure event.

OFF to ON:
A short depression of the pushbutton will turn on the lamp in Blackout light for 5 minutes.

Blackout to OFF:
Once Blackout light is on, a short depression of the pushbutton turns the light OFF.

Transition from Blackout light to White light
Short depression of the pushbutton enables Blackout light,
A 3 seconds continuous depression of the pushbutton changes to White light.
A consecutive brief push turns OFF the White light.

White to OFF:
Once White light is on, a short push on the pushbutton turns the light OFF.

Potentiometer:
Light intensity is controllable from 1% to 100% by a Potentiometer.

Light intensity under Backup Battery Functionality
White and Blackout light intensity are reduced to enable a long use of the internal Backup Battery.

LVD – Low Voltage Detection alert

Vehicle's battery low voltage monitoring**.**

When the vehicle's battery voltage falls below a predetermined value (21.5V) the system automatically shifts to **L**ow **V**oltage **D**etection visual Alert as follows:

- White light and Blackout light flickers alternately if White light was lit.
- Blackout light flickers if the Blackout light was lit.
- A brief press of the push button suspends the alert for 2 minutes.

PIK-AS AUSTRIA	**Product No. PA269002 – High intensity Dome Light** Technisches Datenblatt – Technical Datasheet	Stand 12/2017
●	Low Voltage Alert	Backup Battery	Dimming

Low Profile, Low Weight, High Intensity Dome Light
White and Blue light

The product is designed to provide White and Blackout light at a flood beam angle. The control of the light is enabled by a momentary push button switch located on the product.
The product is designed to provide illumination for a specific cabin or workstation areas.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and power economical light output at an input voltage range of 16-33VDC.
The product is designed to meet the rigorous requirements of military ground vehicle environments.

Features

* **Spectral color** – White and Blue
* **Simple mounting** – Mounted by 4 screw holes.
* **Receptacle type** – The unit utilizes a VG95234A-10SL-3PN
* **Dimming control** – Light intensity is controllable through a potentiometer.

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Input Voltage	16-33 VDC
Input Current at 24V	0.5A ±10%
Power Consumption at 24V	12 Watts
Input Over Voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light center Luminance at 1m	450 Lux
Light Beam Angle (FWHM)	110°
Dominant Wavelength (blue)	465nm
Temperature Range	-40°C to +71°C
Dimensions	acc. Drawing PA269002
Weight	0.570Kg
Water sealing	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Characteristics	MIL-STD-461F
Built-In EMI RFI Filter, Low Noise	MIL-STD-461F
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	White

PIN	Functional description
A	(+) 28V
B	(–) Return
C	

Functionality:
Upon energizing Pin A, the indicator LED on the pushbutton starts operating, Indicating that the system is active and ready to be operated.
Blue light is enabled upon short depression of the pushbutton.
A consecutive short depression turns OFF the light.

Transition from Blue light to White light
Short depression of the pushbutton enables Blue light.
A 3 seconds continuous depression of the pushbutton changes to **White** light.
A consecutive brief push turns OFF the White light.

Light intensity control
Light intensity is controlled by a Potentiometer.
Light intensity is controllable between 1 - 100%.

Low profile, low weight Dome Light
White and Green light

The product is designed to provide White and Blackout light at a flood beam angle.
The control of the light is enabled by a push button switch located on the product.
The product is designed to meet the rigorous requirements of military ground vehicle environments.

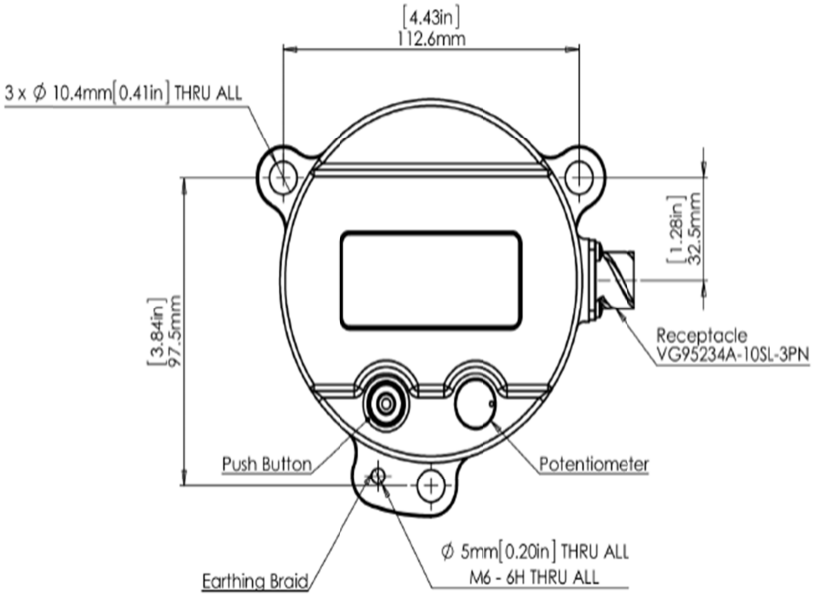
Features

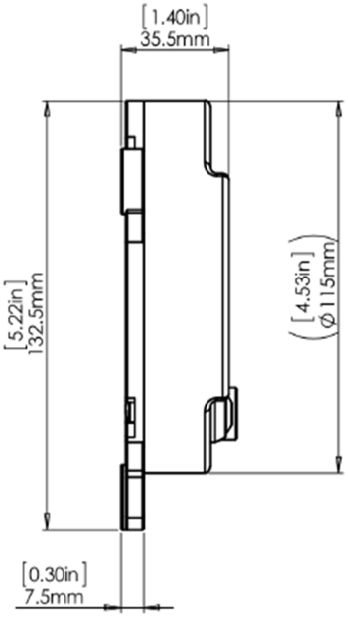
* **Spectral colour** - White and Green
* **Simple mounting** – mounted by 3 screw holes
* **Receptacle type** – The unit utilizes a VG95234A-10SL-3PN receptacle
* **Backup battery** – Active while mains are disconnected or during vehicle power supply failure event.
* **Dimming control** – Dimming is enabled by a potentiometer located on the product (0-100%
* **Vehicle's battery monitoring** – When the vehicle's battery falls below a predetermined value (21,5V) the system automatically shifts to low voltage visual alert

VG95234A-10SL-3PN

Pin-out Configuration

PIN	DESCRIPTION
A	(+)28VDC Blackout Light
B	(–) Return
C	(+) 28VDC White Light



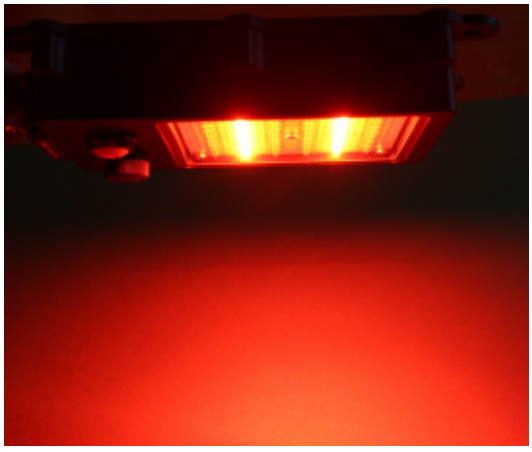


Low Profile Dome Light
High Power – Wide Beam Angle

The LED based dome light is designed to provide general purpose illumination within armored vehicles. Two operation modes are available, White light mode and Red light mode.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and economical light output at an input voltage range of 16….33VDC.
The product is designed to meet the rigorous requirements of Military ground vehicle environments.

Features

* **White and Red Blackout Light**
* **Simple mounting** – Mounted by 4 screw holes.
* **Dimming –** 3 – 100%



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PIK-AS AUSTRIA	**Product No. PA269005 – Low Profile Dome Light**		Stand 12/2017
	Technisches Datenblatt – Technical Datasheet		
●	~~Low Voltage Alert~~	~~Backup Battery~~	Dimming

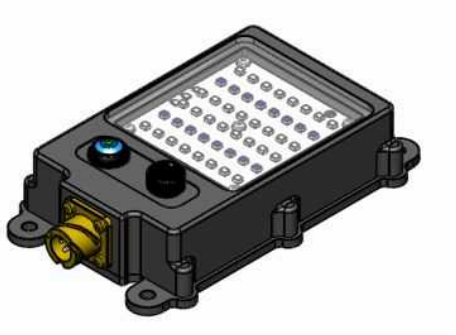
Technical Specifications:

Input Supply Voltage	16-33VDC
Input Current at 24V	0,7A +- 10%
Power Consumption at 24V	17 Watt
Input Over voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light Intensity at 1m	1050 Lux
White Color Temperature	4000K
White Light Rendering	80 CRI
Dominant Wavelength	634nm (Red)
Light Beam Angle	110°
Weight	570 g
Operating Temperature Range	-20°C to 49°C
Storage Temperature Range	-24°C to 70°C
Immersion Test	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Characteristics	MIL-STD-461F
Built-In EMI RFI Filter, Low Noise	MIL-STD-461F
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	Black Matt

Receptacle VG95234A-10SL-3PN
Pin-out configuration

PIN	Functional Description
A	(+) Active Blackout Light (RED)
B	(-) Return
C	(+) Active White Light

Low Profile Dome Light
High Power – Wide Beam Angle



The LED based dome light is designed to provide general purpose illumination within armored vehicles. Two operation modes are available, White light mode and Blue light mode.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and economical light output at an input voltage range of 16….33VDC.
The product is designed to meet the rigorous requirements of Military ground vehicle environments.

Features

* **White and Blue Blackout Light**
* **Simple mounting** – Mounted by 4 screw holes.
* **Dimming –** 3 – 100%

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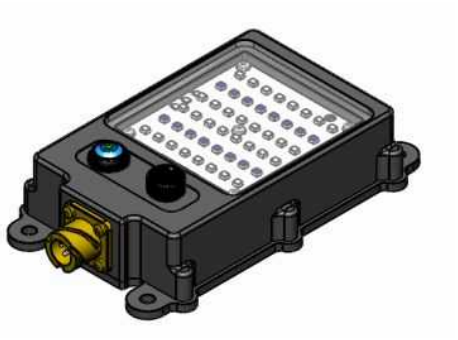
Technical Specifications:



Input Supply Voltage	16-33VDC
Input Current at 24V	0,7A +- 10%
Power Consumption at 24V	17 Watt
Input Over voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light Intensity at 1m	1050 Lux +- 5%
White Color Temperature	4000K
White Light Rendering	80 CRI
Dominant Wavelength	460nm (Blue)
Light Beam Angle	80°
Weight	570 g
Operating Temperature Range	-20°C to 49°C
Storage Temperature Range	-24°C to 70°C
Immersion Test	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Characteristics	MIL-STD-461F
Built-In EMI RFI Filter, Low Noise	MIL-STD-461F
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	Black Matt

Receptacle VG95234A-10SL-3PN
Pin-out configuration

PIN	Functional Description
A	(+) Active Blackout Light (BLUE)
B	(-) Return
C	(+) Active White Light

High intensity Container Light - Description

The high intensity container light is a high tech LED light to provide white or red light in containers, shelters, etc.

Although it has a compact housing, the unit is able to provide sufficient light in an area of more than 3x3m, when it is mounted at about 2m height.
Up to 10 units can be controlled with one PWM control box.

Features

* **First light colour** – White
* **Second (blackout) light** – Red
* **Simple mounting** – Mounted by 4 screw holes located in the product base
* **Receptacle type** – VG95234A-10SL-3PN
* **Dimming control** – dimmable through PWM signal

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Product No. PA293001
Technical Specifications

Input Voltage	16-33VDC
Input Current at 24V	1.20A +-10%
Power Consumption at 24V White	29 Watt
Power Consumption at 24V Red	5.3 Watt
Input Over Voltage Protection	Included
Input Reverse Voltage Protection	Included
Light source	LEDs
White Light Rendering Index	80 CRI
White Light Colour Temperature	4000K
White Light Center Luminance at 1,5m	320 Lux
Red Light Center Luminance at 1,5m	15 Lux
Dominant Wavelength (Red)	625nm
Light Beam Angle	120°
Operating temperature range	-40°C to +51°C
Weight	1.280kg
Immersion Test	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Characteristics	MIL-STD-461E
Built-in EMI RFI Filter, Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
Housing Colour	Black

Receptacle pin-out:

PIN	Functional description
A	(+) Active Blackout Light (Red)
B	(-) Return
C	(+) Active White Light

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Dome Light System – White and Blue Light
White light - 25 Watt, 2000 lumen
Blue light – 4.8 Watt

The LED based dome light is designed to provide general purpose illumination within armoured vehicles.
Two operation modes are available, White light mode and Blackout light mode.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent and economical light output at an input voltage range of 16...33VDC.
Its control circuitry is based on a central microcontroller which controls all functionalities of the module.
The product is designed to meet the rigorous requirements of Military ground vehicle environments.

General features

White light for non-combat activity and Blackout light for combat activity.

Functionality:

Light color turns on White or Blackout light.
Operation mode is determined by an external command box within the vehicle.
The command box determines whether pin A or pin C of the receptacle is energized.

Energizing pin A
Dome Light will turn on in Blackout light mode.

Energizing pin C
Dome Light will turn on in White light mode.

Technical Specifications:

Input Supply Voltage	16-33VDC
Input Current at 24V	1.05A ±10%
Power Consumption at 24V White	25 Watt
Power Consumption at Blackout	4.8 Watt
Input Over voltage Protection	included
Input Reverse voltage Protection	included
Light source	LEDs
White Light Intensity Center Luminance at 1m	800 Lux
White Color Temperature	4000K
White Light Rendering	80 CRI
Dominant Wavelength	465nm (Blue)
Light Beam Angle	120°
Dimensions	See Drawing
Weight	1.2 Kg
Temperature range	MIL-STD-810E
Immersion Test	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
Electromagnetic Interference Characteristics	MIL-STD-461F
Built-In EMI RFI Filter, Low Noise	MIL-STD-461F
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	Black Glossy

Receptacle 62IN-12E-8-4P
Pin-out configuration

PIN	Wire Color	Functional Description
A	White	(+) Active White Light
B	Red	(+) Active Blue Light
C	Black	(–) Return
D	Blue	PWM Control

Description

The Head Light is designed to provide wide angle illumination for armored vehicles.
The design utilizes solid state technology and a constant current drive circuit to achieve a consistent power economic light output at an input voltage range of 16VDC…32VDC.
The Head Light lightweight construction is made of aluminum, and is fully waterproofed.
The Head Light is controlled by means of 2 connectors for High Beam and Low Beam light intensity.
The Head Light is designed to meet the rigorous requirements of military ground vehicle environments.

Features

* **Light color:** White.
* **Illumination**
  High Intensity Beam - provides >100Lux @ center line at a distance of 10m from target.
  Low Intensity Beam - provides > 60Lux @ center line at a distance of 10m from target.
* **Beam angle FWHM:** ±15° off center line.
* **Electrical connection:** Connector 7064961

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PIK-AS AUSTRIA	**Flood Light – PA270012**	Stand 05/2016
	Technisches Datenblatt – Technical Datasheet	

No Blackout	~~Low Voltage Alert~~	~~Backup Battery~~	~~Dimming~~

Technical Specification

Input Voltage	16 – 32 VDC
Input Current at 24V	0.68A / 1.05A
Power Consumption at 24V	25 Watts
Input Over Voltage Protection	Included
Input Reverse voltage Protection	Included
Light source	LEDs
White Light Center Luminance at 10m	100 Lux
Light Beam Angle FWHM	30°
Operating Temperature Range	-40°C to +71°C
Dimensions	drawing No. PA270012
Weight	1.45 Kg (3.2lbs)
Water sealing	MIL-STD-810E
Transient Voltage Characteristics	MIL-STD-1275A
EMI Characteristics	MIL-STD-461E
Built-In EMI RFI Filter, Low Noise	MIL-STD-461E
Mechanical Shock Test	MIL-STD-810E
Random Vibration	MIL-STD-810E
External Color	Black

Connectors Configuration

	Functional Description
Left Female Plug (viewed from behind)	**(+)** 16-32VDC High Intensity
Right Female Plug (viewed from behind)	**(+)** 16-32VDC Low Intensity
Fastening Bolt	**(–)** Return

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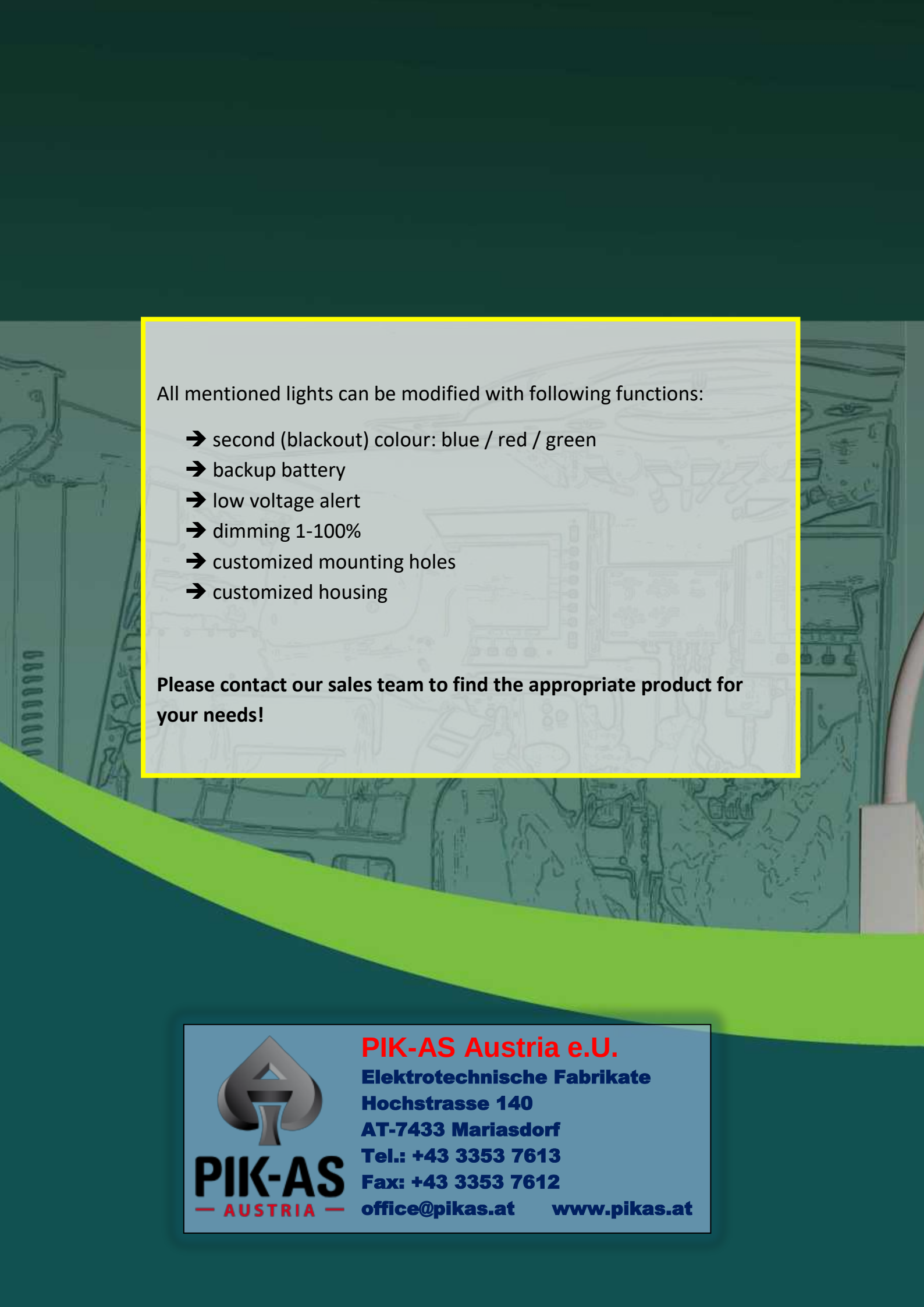

All mentioned lights can be modified with following functions:

- ➔ second (blackout) colour: blue / red / green
- ➔ backup battery
- ➔ low voltage alert
- ➔ dimming 1-100%
- ➔ customized mounting holes
- ➔ customized housing

Please contact our sales team to find the appropriate product for your needs!

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