The company ASTEL d.o.o. was established in 1991 and has been one of the leading European manufacturers of video surveillance equipment for over a decade. Experience in the field of security systems led to the development and production of electronic marine equipment that provides a high level of safety and dependability of operation. The ASTEL MARINE brand name was launched in 2004 and very soon it has became one of the leading brand name in marine industry.
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Due to continuous product improvement all specifications and design are subject to change without notice.
Interior OLED Lights

Compact OLED (organic LED) modular designed interior light with electronic driver built-in anodized aluminium casing with different mounting assemblies.

Built-in microprocessor enables network connections and remote control with digital dimming.

Built-in ASTEL protocol enables complete DMX512 lighting control by using optional interfaces.

Advanced lighting technology allows perfect light spreading and the best illumination quality (CRI 90) with two different color temperature options.

All models are designed for operating at normal temperature conditions with thermal, transient and reverse polarity protections.

• Modular Aluminium Design
• Sand-Blasting and Anodizing E6C0 Finishing
• 1 OLED Panel Basic Assembly
• Daylight White or Warm White
• Remote Control
• Digital Dimming
• Built-in ASTEL Protocol for DMX512 Control
• Polarity Protection
• Transient Protection
• Low Power Consumption
• Simple Installation

VERSA MWR01 • VERSA MWS01

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<th>12-24 Vdc, max. 140 mA/12 Vdc or 80 mA/24 Vdc</th>
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<td>max. 75 lm</td>
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<tr>
<td>Color Rendering Index (CRI)</td>
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<tr>
<td>Casing</td>
<td>Anodized Aluminium</td>
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<tr>
<td>Dimensions (panel)</td>
<td>133.0 x 133.0 x 5.1 mm</td>
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<td>Weight</td>
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VERSA MWS02

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<td>Casing</td>
<td>Anodized Aluminium</td>
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<td>Dimensions (panel)</td>
<td>133.0 x 133.0 x 5.1 mm</td>
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<tr>
<td>Weight</td>
<td>530 g</td>
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Color of lighting

W  | warm white
D  | daylight white

LG Chem

Simply the brightest.
**Interior & Exterior LED Lights**

Compact LED light with electronic driver built-in waterproof anodized aluminium casing designed by using 1 high-power LED or LED array with built-in microprocessor which enables network connections and remote control with digital dimming.

Multi-color RGBW models offer the best illumination quality of different white lighting and microprocessor-controlled changing of white and all other colors of lighting manually or automatically through the complete rainbow spectrum. The light is designed to adjust the requested white lighting in 21 steps.

Built-in ASTEL protocol enables complete lighting control by using optional DMX512 interfaces MXU01 or MXU03.

Advanced optical system with reflector and holographic diffuser allows perfect light spread with different color temperature options for interior and exterior.

Due to wide range of prestige massive face shapes made of aluminium or stainless steel the INTENSA is suitable to fit on both luxury yachts and superyachts.

All models are designed for operating at extreme temperature and voltage conditions with thermal, transient and reverse polarity protections.

- Innovative Design
- Anodized Aluminium Casings
- 1 High-Power LED or LED Array Design
- Different Face Shapes and Finishes
- White, Blue, Green, Red or RGB Multi-Color Lighting
- Reflector with Holographic Diffuser
- Microprocessor Control
- Digital Dimming
- DMX512 Network Control
- Polarity Protection
- Transient Protection
- Thermal Protection
- Wide Range Power Supply

---

**INTENSA MRM0110**

<table>
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<td>Lens angle</td>
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<tr>
<td>Optical window</td>
<td>High Grade Polycarbonate Glass</td>
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<tr>
<td>Luminous flux</td>
<td>max. 150 lm (daylight white)</td>
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<td>White color temperature</td>
<td>4500K (daylight) or 3000K (warm)</td>
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<td>Casing</td>
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<td>Dimensions</td>
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<td>Mounting hole</td>
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<td>Weight</td>
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<tr>
<td></td>
<td>Stainless steel front shape 100g</td>
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</table>

**Control**

- I  internal dimming control, 2-wire system
- E  external dimming control, 3-wire system

**Front shape**

- MAW  round, modern, painted white aluminium
- MAB  round, modern, painted beige aluminium
- MSP  round, modern, polished stainless steel
- MSG  round, modern, polished gold (PVD) stainless steel
- MSS  round, modern, satin stainless steel
- QMAW square, modern, painted white aluminium
- QMAB square, modern, painted beige aluminium
- QMSP square, modern, polished stainless steel
- QMSG square, modern, polished gold (PVD) stainless steel
- QMSS square, modern, satin stainless steel

**Color of lighting**

- W  warm white
- D  daylight white
- B  blue
- G  green
- R  red
- M  RGBW multi-color

---

> Simply...the brightest
Interior & Exterior LED Lights

Compact LED light with electronic driver built-in waterproof anodized aluminium casing designed by using 1, 2 or 6 high-power LEDs with built-in microprocessor which enables network connections and remote control with digital dimming.

Multi-color RGBW models offer the best illumination quality of different white lighting and microprocessor-controlled changing of white and all other colors of lighting manually or automatically through the complete rainbow spectrum. The light is designed to adjust the requested white lighting in 21 steps.

Built-in ASTEL protocol enables complete lighting control by using optional DMX512 interfaces MXU01 or MXU03.

Advanced optical system with reflector and holographic diffuser allows perfect light spread with different color temperature options for interior and exterior.

Due to wide range of prestige massive face shapes made of aluminium or stainless steel the INTENSA is suitable to fit on both luxury yachts and superyachts.

All models are designed for operating at extreme temperature and voltage conditions with thermal, transient and reverse polarity protections.

- Innovative Design
- Anodized Aluminium Casings
- 1, 2 or 6 High-Power LEDs Design
- Different Face Shapes and Finishes
- White, Blue, Green, Red or RGBW Multi-Color Lighting
- Reflector with Holographic Diffuser
- Microprocessor Control
- Digital Dimming
- DMX512 Network Control
- Polarity Protection
- Transient Protection
- Thermal Protection
- Wide Range Power Supply
- Low Power Consumption
- Simple Installation

Simply... the brightest
Interior & Exterior LED Lights

Compact LED light with electronic driver built-in waterproof anodized aluminium casing designed by using 2, 3 or 6 high-power LEDs with built-in microprocessor which enables network connections and remote control with digital dimming.

Multi-color RGBW models offer the best illumination quality of different white lighting and microprocessor-controlled changing of white and all other colors of lighting manually or automatically through the complete rainbow spectrum. The light is designed to adjust the requested white lighting in 21 steps.

Built-in ASTEL protocol enables complete lighting control by using optional DMX512 interfaces MXU01 or MXU03.

Advanced optical system with reflector and holographic diffuser allows perfect light spread with different color temperature options for interior and exterior.

Due to wide range of prestige massive face shapes made of aluminium or stainless steel the INTENSA is suitable to fit on both luxury yachts and superyachts.

All models are designed for operating at extreme temperature and voltage conditions with thermal, transient and reverse polarity protections.

• Innovative Design
• Anodized Aluminium Casings
• 2, 3 or 6 High-Power LEDs Design
• Different Face Shapes and Finishes
• White, Blue, Green, Red or RGBW Multi-Color Lighting
• Reflector with Holographic Diffuser
• Microprocessor Control
• Digital Dimming
• DMX512 Network Control
• Polarity Protection
• Transient Protection
• Thermal Protection
• Wide Range Power Supply
• Low Power Consumption
• Simple Installation

Control
I  internal dimming control, 2-wire system
E  external dimming control, 3-wire system

Front shape
MAW  round, modern, painted white aluminium
MAB  round, modern, painted beige aluminium
MSP  round, modern, polished stainless steel
MSG  round, modern, polished gold (PVD) stainless steel
MSS  round, modern, satin stainless steel
QMAW  square, modern, painted white aluminium
QMAB  square, modern, painted beige aluminium
QMSP  square, modern, polished stainless steel
QMSP  square, modern, polished gold (PVD) stainless steel
QMSS  square, modern, satin stainless steel

Color of lighting • INTENSA MRM0230 and MRM0340
W  warm white
D  daylight white
B  blue
G  green
R  red

Color of lighting • INTENSA MRM0380
W  warm white
D  daylight white

Color of lighting • INTENSA MRM0625
M  RGBW multi-color

INTENSA MRM0230
Power supply 12–24 Vdc, max. 500 mA/12 Vdc or 260 mA/24 Vdc
Reflector angle 130°
Optical window High-grade polycarbonate glass
Luminous flux max. 530 lm (daylight white)
White color temperature 4500K (daylight white) or 3000K (warm)
Casing Black anodized aluminium
Dimensions Ø105mm x 30mm
Mounting hole Ø79mm x 29mm
Weight Aluminium front shape 190g
Stainless steel front shape 250g

INTENSA MRM0340
Power supply 12–24 Vdc, max. 800 mA/12 Vdc or 420 mA/24 Vdc
Reflector angle 130°
Optical window High-grade polycarbonate glass
Luminous flux max. 800 lm (daylight white)
White color temperature 4500K (daylight white) or 3000K (warm)
Casing Black anodized aluminium
Dimensions Ø105mm x 30mm
Mounting hole Ø79mm x 29mm
Weight Aluminium front shape 190g
Stainless steel front shape 250g

INTENSA MRM0380
Power supply 12–24 Vdc, max. 800 mA/12 Vdc or 420 mA/24 Vdc
Reflector angle 130°
Optical window High-grade polycarbonate glass
Luminous flux max. 1300 lm (daylight white)
White color temperature Adjustable, from 2500K to 7500K in 21 steps
Casing Black anodized aluminium
Dimensions Ø105mm x 30mm
Mounting hole Ø79mm x 29mm
Weight Aluminium front shape 190g
Stainless steel front shape 250g

INTENSA MRM0625
Power supply 12–24 Vdc, max. 650 mA/12 Vdc or 350 mA/24 Vdc
Reflector angle 130°
Optical window High-grade polycarbonate glass
Luminous flux max. 550 lm
White color temperature Adjustable, from 2500K to 7500K in 21 steps
Casing Black anodized aluminium
Dimensions Ø105mm x 30mm
Mounting hole Ø79mm x 29mm
Weight Aluminium front shape 190g
Stainless steel front shape 250g
Interior & Exterior LED Lights

Compact LED light designed with 1, 3 or 6 high-power LEDs with electronic driver built-in waterproof anodized aluminium casing for surface mounting.

Innovative electronic design with built-in microprocessor enables network connections and remote control with digital dimming.

Built-in ASTEL protocol enables complete lighting control by using optional DMX512 interfaces MXU01 or MXU03.

Advanced optical system with reflector and holographic diffuser allows perfect light spread. Different colour temperature options offer perfect solutions in the interior and exterior.

Due to wide range of prestige massive face shapes made of alluminium or stainless steel the ASTRA is suitable to fit on luxury yachts and superyachts.

All models are designed for operating at extreme temperature and voltage conditions with thermal, transient and reverse polarity protections.

- 1, 3 or 6 High-Power LEDs Design
- Anodized Aluminium Casings
- Massive Face Shapes with Different Finishes
- White, Blue, Green or Red Lighting
- Reflector with Holographic Diffuser
- Microprocessor Control
- Digital Dimming
- DMX512 Network Control
- Polarity Protection
- Transient Protection
- Thermal Protection
- Wide Range Power Supply
- Low Power Consumption
- Simple Installation

**ASTRA MSM0115**
- Power supply: 12–24 Vdc, max. 300 mA/12 Vdc or 155 mA/24 Vdc
- Reflector angle: 100°
- Optical window: High-grade polycarbonate glass
- Luminous flux: max. 270 lm (daylight white)
- White color temperature: 4500K (daylight) or 3000K (warm)
- Casing: Black anodized aluminium
- Dimensions: Ø88 mm x 12 mm
- Weight: Aluminium front shape 170g

**ASTRA MSM0320**
- Power supply: 12–24 Vdc, max. 330 mA/12 Vdc or 185 mA/24 Vdc
- Reflector angle: 100°
- Optical window: High-grade polycarbonate glass
- Luminous flux: max. 430 lm (daylight white)
- White color temperature: 4500K (daylight) or 3000K (warm)
- Casing: Black anodized aluminium
- Dimensions: Ø88 mm x 12 mm
- Weight: Aluminium front shape 170g

**ASTRA MSM0650**
- Power supply: 12–24 Vdc, max. 600 mA/12 Vdc or 315 mA/24 Vdc
- Reflector angle: 100°
- Optical window: High-grade polycarbonate glass
- Luminous flux: max. 870 lm (daylight white)
- White color temperature: 4500K (daylight) or 3000K (warm)
- Casing: Black anodized aluminium
- Dimensions: Ø108 mm x 12 mm
- Weight: Aluminium front shape 250g

Control
- I = internal dimming control, 2-wire system
- E = external dimming control, 3-wire system

Front shape
- AW = painted white aluminium
- AB = painted beige aluminium
- SP = polished stainless steel
- SG = polished gold (PVD) stainless steel
- SS = satin stainless steel

Color of lighting
- W = warm white
- D = daylight white
- B = blue
- G = green
- R = red

**Simply...the brightest**
Interior & Exterior LED Lights

Innovative multi-color RGB LED interior & exterior light built-in waterproof stainless steel casing with different front shapes. It is suitable for using as interior and exterior downlight and step or staircase light to light to the floor under the angle of 45 degrees or straight.

The main feature is that ARCUS series allows changing of the color of lighting manually or automatically through the complete rainbow spectrum.

The most advanced electronic design with built-in microprocessor enables network connection and simple control of complete group of the lights.

Built-in ASTEL protocol enables complete lighting control by using optional DMX512 interfaces MXU01 or MXU03.

All the models are available in polished stainless steel casings with multi-color RGB lighting with 1 high-brightness LED.

- Innovative Design  
- Stainless Steel Casings  
- Different Face Shapes  
- Multi-Color RGB Lighting  
- Reflector with Holographic Diffuser  
- Microprocessor Control  
- DMX512 Network Control  
- Polarity Protection  
- Transient Protection  
- Wide Range Power Supply  
- Low Power Consumption  
- Simple Installation
Underwater LED Lights

Ultra-thin compact surface-mount design with built-in driver enables very simple installation on the stern and both sides of the hull without making any bigger holes through the hull under waterline.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

- Innovative and Patented Design
- Aluminium Bronze or Stainless Steel Ultra-Thin Casing
- 6 Power LEDs Design
- White, Blue, Green or RGB Multi-Color Lighting
- High Grade Polycarbonate Glass Optical Window
- Vacuum Metalized Reflector
- Remote Control
- Digital Dimming
- DMX512 Network Control
- Polarity Protection
- Transient Protection
- Thermal Protection
- Wide Range Power Supply
- Low Power Consumption
- Simple Installation

EQUATOR MSR0640
- Power supply: 12-24 Vdc, max. 680 mA/12 Vdc or 380 mA/24 Vdc
- Lens angle: 60°
- Optical window: High-grade polycarbonate glass
- Luminous flux: max. 950 lm (white)
- White color temperature: 6,000 - 10,000 K
- Operating temperature: -10°C - +50°C
- Casing: Aluminium bronze (AB2) or stainless steel (SAE316L)
- Protection: IP 68
- Dimensions: 99 x 69 x 10 mm
- Weight: 0.3 kg

Material of casing
AB2   aluminium bronze
SSP   stainless steel

Color of lighting
W   white
B   blue
G   green
M   RGB multi-color

Simply...the brightest
Underwater LED Lights

Ultra-thin compact surface-mount design with built-in driver enables very simple installation on the stern and both sides of the hull without making any bigger holes through the hull under waterline.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

- Innovative and Patented Design
- Aluminium Bronze or Stainless Steel Ultra-Thin Casing
- 12 Power LEDs Design
- White, Blue, Green or RGB Multi-Color Lighting
- High Grade Polycarbonate Glass Optical Window
- Vacuum Metalized Reflector
- Remote Control
- Digital Dimming
- DMX512 Network Control
- Polarity Protection
- Transient Protection
- Thermal Protection
- Wide Range Power Supply
- Low Power Consumption
- Simple Installation

**EQUATOR MSR1280**

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<td>Lens angle</td>
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<td>Optical window</td>
<td>High-grade polycarbonate glass</td>
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<tr>
<td>Luminous flux</td>
<td>max. 1,900 lm (white)</td>
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<td>White color temperature</td>
<td>6,000 - 10,000 K</td>
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<tr>
<td>Operating temperature</td>
<td>-10°C - +50°C</td>
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<tr>
<td>Casing</td>
<td>Aluminium bronze (AB2) or stainless steel (SAE316L)</td>
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<tr>
<td>Protection</td>
<td>IP 68</td>
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<tr>
<td>Dimensions</td>
<td>119 x 89 x 10 mm</td>
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<tr>
<td>Weight</td>
<td>0.4 kg</td>
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**Material of casing**

- **AB2** aluminium bronze
- **SSP** stainless steel

**Color of lighting**

- **W** white
- **B** blue
- **G** green
- **M** RGB multi-color

Simply...the brightest
Underwater LED Lights

Ultra-thin compact surface-mount design with built-in driver enables very simple installation on the stern and both sides of the hull without making any bigger holes through the hull under waterline.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

- Innovative and Patented Design
- Aluminium Bronze or Stainless Steel Ultra-Thin Casing
- 36 Power LEDs Design
- White, Blue, Green or RGB Multi-Color Lighting
- High Grade Polycarbonate Glass Optical Window
- Vacuum Metalized Reflector
- Remote Control
- Digital Dimming
- DMX512 Network Control
- Polarity Protection
- Transient Protection
- Thermal Protection
- Wide Range Power Supply
- Low Power Consumption
- Simple Installation

EQUATOR MSR36240

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<td>Optical window</td>
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</tr>
<tr>
<td>Casing</td>
<td>Aluminium bronze (AB2) or stainless steel (SAE316L)</td>
</tr>
<tr>
<td>Protection</td>
<td>IP 68</td>
</tr>
<tr>
<td>Dimensions</td>
<td>139 x 109 x 10 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.6 kg</td>
</tr>
</tbody>
</table>

Material of casing
- AB2 aluminium bronze
- SSP stainless steel

Color of lighting
- W white
- B blue
- G green
- M RGB multi-color

Simply…the brightest
Underwater LED Lights

Registered slope-truncated cone designed casing for installation on the hull to light in different directions to the sea ground and to the both sides of the yacht.

Surface-mount designed casing enables very simple installation on the hull without making any bigger holes through the hull under water line.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

- Aluminium Bronze or Anodized Aluminium Casing
- 6 or 18 High-Power LEDs Design
- White, Blue, Green, Three-Color or RGB Multi-Color Lighting
- Tempered Glass Optical Window
- High-Efficiency Lens
- Polarity Protection
- Transient Protection
- Thermal Protection
- Low Power Consumption
- Simple Installation
- Remote Control
- Digital Dimming (optional)
- DMX512 Network Control (optional)

Material of casing
AB2  aluminium bronze
ALN  anodized aluminium

Color of lighting - CONUS MST0680
W  white
B  blue
G  green

Color of lighting - CONUS MST18240
W  white
B  blue
G  green
3W  white-blue-green
3R  RGB multi-color

CONUS MST0680
Power requirement 1 A / 1.5A
Lens angle 50°
Optical window 6 mm depth tempered glass
Luminous flux max. 3,500 lm (white)
White color temperature 6,000 - 10,000 K
Operating temperature -10°C - +50°C
Casing Aluminium bronze (AB2) or anodized aluminium
Protection IP 68
Dimensions 160x103x64mm
Weight 2.4 kg (bronze) / 0.9 kg (aluminium)

CONUS MST18240
Power requirement 3x1 A / 3x1.5 A
Lens angle 50°
Optical window 6 mm depth tempered glass
Luminous flux max. 10,700 lm (white)
White color temperature 6,000 - 10,000 K
Operating temperature -10°C - +50°C
Casing Aluminium bronze (AB2) or anodized aluminium
Protection IP 68
Dimensions 217x142x85mm
Weight 6.0 kg (bronze) / 2.3 kg (aluminium)

Simply...the brightest
Underwater LED Lights

Registered slope-truncated cone designed casing for installation on the hull to light in different directions to the sea ground and to the both sides of the yacht.

Surface-mount designed casing enables very simple installation on the hull without making any bigger holes through the hull under water line.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

- Aluminium Bronze or Anodized Aluminium Casing
- 6 or 18 High-Power LEDs Design
- White, Blue, Green, Three-Color or RGB Multi-Color Lighting
- Tempered Glass Optical Window
- High-Efficiency Lens
- Polarity Protection
- Transient Protection
- Thermal Protection
- Low Power Consumption
- Simple Installation
- Remote Control
- Digital Dimming (optional)
- DMX512 Network Control (optional)

### Color of lighting - CONUS MSR0680
- **W** white
- **B** blue
- **G** green

### Material of casing
- **AB2** aluminium bronze
- **ALN** anodized aluminium

### CONUS MSR0680
- **Power requirement**: 1 A / 1.5A
- **Lens angle**: 50°
- **Optical window**: 6 mm depth tempered glass
- **Luminous flux**: max. 3.500 lm (white)
- **White color temperature**: 6.000 - 10.000 K
- **Operating temperature**: -10°C - +50°C
- **Casing**: Aluminium bronze (AB2) or anodized aluminium
- **Protection**: IP 68
- **Dimensions**: 160x103x85mm
- **Weight**: 2.4 kg (bronze) / 0.9 kg (aluminium)

### Power Supply Unit MPS021000 / MPS021500
- **Input voltage**: 24 Vdc
- **Consumption**: max. 1.7 Adc
- **Operating temperature**: -10°C - +50°C
- **Casing**: ABS
- **Protection**: IP 65
- **Dimensions**: 127x111x65.5mm
- **Weight**: 0.3 kg

### CONUS MSR18240
- **Power requirement**: 3x1 A / 3x1.5 A
- **Lens angle**: 50°
- **Optical window**: 6 mm depth tempered glass
- **Luminous flux**: max. 10.700 lm (white)
- **White color temperature**: 6.000 - 10.000 K
- **Operating temperature**: -10°C - +50°C
- **Casing**: Aluminium bronze (AB2) or anodized aluminium
- **Protection**: IP 68
- **Dimensions**: 217x142x106mm
- **Weight**: 6.0 kg (bronze) / 2.3 kg (aluminium)

### Power Supply Unit MPS061000 / MPS061500
- **Input voltage**: 24 Vdc
- **Consumption**: max. 5 Adc
- **Operating temperature**: -10°C - +50°C
- **Casing**: ABS
- **Protection**: IP 65
- **Dimensions**: 200x160x55.5mm
- **Weight**: 0.6 kg

Simply...the brightest
Underwater LED Lights

Truncated cone surface-mount designed casing enables very simple installation on the hull without making any bigger holes through the hull under water line.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

- Aluminium Bronze or Anodized Aluminium Casing
- 6 or 18 High-Power LEDs Design
- White, Blue, Green, Three-Color or RGB Multi-Color Lighting
- Tempered Glass Optical Window
- High-Efficiency Lens
- Polarity Protection
- Transient Protection
- Thermal Protection
- Low Power Consumption
- Simple Installation
- Remote Control
- Digital Dimming (optional)
- DMX512 Network Control (optional)

**Material of casing**

**AB2** aluminium bronze  
**ALN** anodized aluminium

**Color of lighting - CONVEX MST0680**

| W | white |
| B | blue  |
| G | green |

**Color of lighting - CONVEX MST18240**

| W | white |
| B | blue  |
| G | green |

**CONVEX MST0680**

- **Power requirement**: 1 A / 1.5 A
- **Lens angle**: 50°
- **Optical window**: 6 mm depth tempered glass
- **Luminous flux**: max. 3,500 lm (white)
- **White color temperature**: 6,000 - 10,000 K
- **Operating temperature**: -10°C - +50°C
- **Casing**: Aluminium bronze (AB2) or anodized aluminium
- **Protection**: IP 68
- **Dimensions**: Ø136x34mm
- **Weight**: 2.0 kg (bronze) / 0.8 kg (aluminium)

**CONVEX MST18240**

- **Power requirement**: 3x1 A / 3x1.5 A
- **Lens angle**: 50°
- **Optical window**: 6 mm depth tempered glass
- **Luminous flux**: max. 10,700 lm (white)
- **White color temperature**: 6,000 - 10,000 K
- **Operating temperature**: -10°C - +50°C
- **Casing**: Aluminium bronze (AB2) or anodized aluminium
- **Protection**: IP 68
- **Dimensions**: Ø166x34mm
- **Weight**: 2.7 kg (bronze) / 1.1 kg (aluminium)

**Power Supply Unit MPS021000 / MPS021500**

- **Input voltage**: 24 Vdc
- **Consumption**: max. 1.7 Adc
- **Operating temperature**: -10°C - +50°C
- **Casing**: ABS
- **Protection**: IP 65
- **Dimensions**: 127x111x55.5mm
- **Weight**: 0.3 kg

**Power Supply Unit MPS061000 / MPS061500**

- **Input voltage**: 24 Vdc
- **Consumption**: max. 5 Adc
- **Operating temperature**: -10°C - +50°C
- **Casing**: ABS
- **Protection**: IP 65
- **Dimensions**: 200x160x55.5mm
- **Weight**: 0.6 kg

*Simply… the brightest*
Underwater LED Lights

Truncated cone surface-mount designed casing enables very simple installation on the hull without making any bigger holes through the hull under water line.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

Material of casing
- AB2 - aluminium bronze
- ALN - anodized aluminium

Color of lighting - CONVEX MSR0680
- W - white
- B - blue
- G - green

Color of lighting - CONVEX MSR18240
- W - white
- B - blue
- G - green
- 3W - white-blue-green
- 3R - RGB multi-color
Underwater LED Lights

The underwater light designed to use the latest LED lighting technology for flush-mount installation where the most important is low-profile casing to avoid high water resistance and quality materials to assure very reliability installation and operation.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol.

- Aluminium Bronze Casing
- 6 or 18 High-Power LEDs Design
- White, Blue, Green, Three-Color or RGB Multi-Color Lighting
- Tempered Glass Optical Window
- High-Efficiency Lens
- Polarity Protection
- Transient Protection
- Thermal Protection
- Low Power Consumption
- Remote Control
- Digital Dimming (optional)
- DMX512 Network Control (optional)

Material of casing
AB2 aluminium bronze
ALN anodized aluminium

Color of lighting - PLAQUE MFM0680
W white
B blue
G green

Color of lighting - PLAQUE MFM18240
W white
B blue
G green
3W white-blue-green
3R RGB multi-color

PLAQUE MFM0680
Power requirement 1 A / 1.5 A
Lens angle 50°
Optical window 6 mm depth tempered glass
Luminous flux max. 3,500 lm (white)
White color temperature 6,000 - 10,000 K
Operating temperature -10°C - +50°C
Casing Aluminium bronze (AB2)
Protection IP 68
Dimensions Ø110x135mm
Weight 2.3 kg

Power Supply Unit MPS021000 / MPS021500
Input voltage 24 Vdc
Consumption max. 1.7 Adc
Operating temperature -10°C - +50°C
Casing ABS
Protection IP 65
Dimensions 127x111x55.5mm
Weight 0.3 kg

PLAQUE MFM18240
Power requirement 3x1 A / 3x1.5 A
Lens angle 50°
Optical window 6 mm depth tempered glass
Luminous flux max. 10,700 lm (white)
White color temperature 6,000 - 10,000 K
Operating temperature -10°C - +50°C
Casing Aluminium bronze (AB2)
Protection IP 68
Dimensions Ø140x190mm
Weight 6.7 kg

Power Supply Unit MPS061000 / MPS061500
Input voltage 24 Vdc
Consumption max. 5 Adc
Operating temperature -10°C - +50°C
Casing ABS
Protection IP 65
Dimensions 200x160x55.5mm
Weight 0.6 kg
Superyacht Underwater LED Lights

Ultra-thin compact design with built-in driver for surface-mount installation or installation with optional cofferdam.

Single-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 and PWM dimmer MDU13 with built-in ASTEL protocol

Multi-color RGB light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

EQUATOR MSR36240S • EQUATOR MSR36240P
Power supply 24 Vdc, max. 3.4 A
Lens angle 60°
Optical window High-grade polycarbonate glass
Luminous flux max. 8,300 lm (white)
White color temperature 6,000 - 10,000 K
Operating temperature -10°C - +50°C
Casing Stainless steel (SAE316L)
Protection IP 68
Dimensions Ø139 x 14 mm (S) • Ø166 x 15 mm (P)
Weight 1.4 kg (S) • 1.7 kg (P)

CONVEX MTH18240S • CONVEX MSR18240S
Power requirement 3 x 1 A / 3x1.5 A
Lens angle 50°
Optical window 6 mm depth tempered glass
Luminous flux max. 10,700 lm (white)
White color temperature 6,000 - 10,000 K
Operating temperature -10°C - +50°C
Casing Stainless steel (SAE316L)
Protection IP 68
Dimensions Ø110x125mm (MTH) • Ø140x34mm (MSR)
Weight 1.9 kg (MTH) • 2.3 kg (MSR)

Power Supply Unit MPS061000 / MPS061500
Input voltage 24 Vdc
Consumption max. 5 Adc
Operating temperature -10°C - +50°C
Casing ABS
Protection IP 65
Dimensions 200x160x55.5mm
Weight 0.6 kg
Superyacht Underwater LED Lights

Professional robust design with separate power supply unit (driver) for installation with optional welded cofferdam.

White-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

Multi-color RGBW light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

CONVEX MSR09200
- Power requirement: 1 A (white), 3 x 1 A (RGB)
- Lens angle: 50°
- Optical window: 15 mm tempered glass
- Luminous flux: max. 14,000 lm (white)
- White color temperature: 6,000 - 10,000 K
- Operating temperature: -10°C - +50°C
- Casing: Stainless steel (SAE316L) or aluminium
- Protection: IP 68
- Dimensions: Ø192x54 mm
- Weight: 6.2 kg (stainless steel), 2.5 kg (aluminium)

CONVEX MSR18300
- Power requirement: 2 x 1 A (white), 3 x 1 A (RGB)
- Lens angle: 50°
- Optical window: 15 mm tempered glass
- Luminous flux: max. 28,000 lm (white)
- White color temperature: 6,000 - 10,000 K
- Operating temperature: -10°C - +50°C
- Casing: Stainless steel (SAE316L) or aluminium
- Protection: IP 68
- Dimensions: Ø242x54 mm
- Weight: 9.4 kg (stainless steel), 3.7 kg (aluminium)

CONVEX MSR09200
- Power requirement: 1 A (white), 3 x 1 A (RGB)
- Lens angle: 50°
- Optical window: 15 mm tempered glass
- Luminous flux: max. 14,000 lm (white)
- White color temperature: 6,000 - 10,000 K
- Operating temperature: -10°C - +50°C
- Casing: Stainless steel (SAE316L) or aluminium
- Protection: IP 68
- Dimensions: Ø192x54 mm
- Weight: 6.2 kg (stainless steel), 2.5 kg (aluminium)

CONVEX MSR18300
- Power requirement: 2 x 1 A (white), 3 x 1 A (RGB)
- Lens angle: 50°
- Optical window: 15 mm tempered glass
- Luminous flux: max. 28,000 lm (white)
- White color temperature: 6,000 - 10,000 K
- Operating temperature: -10°C - +50°C
- Casing: Stainless steel (SAE316L) or aluminium
- Protection: IP 68
- Dimensions: Ø242x54 mm
- Weight: 9.4 kg (stainless steel), 3.7 kg (aluminium)
Superyacht Underwater LED Lights

Professional robust design with separate power supply unit (driver) for installation with corresponding cofferdam which enables reliable management from the inside of the hull.

White-color light control by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

Multi-color RGBW light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch or optional DMX512 interface MXU01 or MXU03 with built-in ASTEL protocol.

- Innovative Design
- High-Grade Aluminium or Stainless Steel Cofferdam with Aluminium Light Body
- 9 or 18 High-Power LEDs Design
- White or RGB Multi-Color Lighting
- Tempered Glass Optical Window
- Vacuum Metalized Reflector
- Remote Control
- Digital Dimming
- DMX512 Network Control
- Polarity Protection
- Transient Protection
- Thermal Protection

**PLAQUE MFM09200**
- Power requirement: 1 A (white), 3 x 1 A (RGB)
- Lens angle: 50°
- Optical window: 15 mm tempered glass (cofferdam)
- Luminous flux max.: 14,000 lm (white)
- White color temperature: 6,000 - 10,000 K
- Operating temperature: -10°C - +50°C
- Casing: Aluminium
- Protection: IP 68
- Dimensions: Ø190x170 mm (without cofferdam)
- Weight: 4.8 kg (without cofferdam)

**Power Supply Unit MPS91000**
- Input voltage: 120-277 Vac, 50/60Hz
- Consumption: 120W (white), 100W (RGB)
- Operating temperature: -10°C - +50°C
- Casing: ABS
- Protection: IP 56
- Dimensions: 300x220x120mm
- Weight: 3 kg (white), 4 kg (RGB)

**PLAQUE MFM18300**
- Power requirement: 2 x 1 A (white), 3 x 1 A (RGB)
- Lens angle: 50°
- Optical window: 15 mm tempered glass (cofferdam)
- Luminous flux max.: 28,000 lm (white)
- White color temperature: 6,000 - 10,000 K
- Operating temperature: -10°C - +50°C
- Casing: Aluminium
- Protection: IP 68
- Dimensions: Ø230x170 mm (without cofferdam)
- Weight: 7.1 kg (without cofferdam)

**Power Supply Unit MPS181000**
- Input voltage: 120-277 Vac, 50/60Hz
- Consumption: 240W (white), 200W (RGB)
- Operating temperature: -10°C - +50°C
- Casing: ABS
- Protection: IP 56
- Dimensions: 380x300x120mm
- Weight: 4 kg (white), 5 kg (RGB)

Simply...the brightest
Wireless Yacht Control Systems

Patented RF microprocessor-based high-reliable wireless remote control system for motor yachts designed especially for controlling engines, thrusters and anchor windlass. By using the remote controller the skipper has control over his vessel from any spot on the yacht. High-quality switches and keys are used to control both engines, bow and stern thrusters as well as the anchor windlass during anchoring.

The remote controller is encased in an ergonomically designed watertight housing ensuring simple operation and portability. Thanks to the carrying cord provided it can even be worn around the neck thus freeing the hands for other tasks during docking. The steering of the vessel is thus always at the skipper’s fingertips in case of any corrections of the vessel’s movement due to wind or other factors are required.

During anchoring, complete control of the vessel is possible from the bow which allows the skipper to precisely determine the position of the anchor and avoid any underwater obstacles. During the weighing of the anchor, proper manoeuvring of the vessel is possible right from its bow, thus avoiding any overloads on the anchor windlass and possible entanglement with another anchor.

Dangerous and unforeseeable situations, due to incorrect instructions from crew members, are thus effectively eliminated also during the procedure of tying a line onto a floating buoy. Thanks to the remote controller the skipper can manoeuvre the vessel to the buoy with pinpoint accuracy and secure the line without any assistance.

Additional control unit can be supplied to connect the system to the special electronic control heads or to connect to the secondary electronic control head if the yacht is fitted with a fly-bridge.

- High-Reliable Patented Design
- Port Engine Control
- Starboard Engine Control
- Anchor Windlass Control
- Bow Thruster Control
- Stern Thruster Control
- Transmit LED Indicator
- Low Battery LED Indicator
- ABS Casings with IP65 and IP67 Protection
- Low-Power Consumption
- Simple Connecting

### MYW868B/CP

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of channels</td>
<td>6, 8 or 10</td>
</tr>
<tr>
<td>Transmission code</td>
<td>40 bit</td>
</tr>
<tr>
<td>Frequency</td>
<td>868 MHz</td>
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<tr>
<td>Transmitter</td>
<td></td>
</tr>
<tr>
<td>RF output power max.</td>
<td>10 mW</td>
</tr>
<tr>
<td>Power requirement</td>
<td>3V lithium battery CR2</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0°C - +50°C</td>
</tr>
<tr>
<td>Casing</td>
<td>ABS, IP65 protection</td>
</tr>
<tr>
<td>Dimensions (L x W x H)</td>
<td>150 x 60 x 34 mm</td>
</tr>
<tr>
<td>Weight (incl. battery)</td>
<td>0.2 kg</td>
</tr>
</tbody>
</table>

### Receiver

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power requirement</td>
<td>12 - 24Vdc</td>
</tr>
<tr>
<td>Consumption max.</td>
<td>300 mA</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>0°C - +50°C</td>
</tr>
<tr>
<td>Casing</td>
<td>ABS, IP65 protection</td>
</tr>
<tr>
<td>Dimensions (L x W x H)</td>
<td>200 x 120 x 55 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.5 kg</td>
</tr>
</tbody>
</table>

### MYW868CP

- 3-channel control system:
  - port/starboard engine control
  - anchor windlass control
- 4-channel control system:
  - port/starboard engine control
  - bow-thruster control
  - anchor windlass control
- 5-channel control system:
  - port/starboard engine control
  - bow-thruster control
  - stern-thruster control
  - anchor windlass control
GSM Alarm and Remote Control Units

GSM remote controllers specially designed to use in marine applications. The built-in GSM module with different interfaces enables simple and easy control and management of complete yacht electrical and electronic equipment through GSM mobile phone. Alarm inputs enable intruder, fire and water income alarming and voltage and temperature alarming and measuring, etc. The built-in relays enable the remote control of different yacht devices. The built-in GPS receiver enables the position tracking and alarming in the case of leaving or approaching to the hold position.

The control of the unit is possible by the help of SMS text messages or by the help of tone (DTMF) dialing. Alarming is possible by receiving the SMS text messages or by alarm calls or by the combination of both of them. Interactive voice responder confirms the requests during DTMF control or inform about the type of alarm when alarm occurs. The unit enables speaker and microphone connection for remote communication. Programming is possible by the help of SMS text messages or with PC by the help of RS-232 serial interface.

By the help of wireless sensors and wireless keyfof transmitter the installation, control and management become more simple and user-friendly.

- Built-In GSM Module with SIM Interface
- Built-In GPS Module for Location Management and Alarming
- SMS Control
- DTMF (PSTN, ISDN, GSM) Control
- IVR (Interactive Voice Responder)
- Temperature Measuring and Management
- Analog Voltage Measuring and Management
- Alarm Sensors Management
- Wireless Sensors Connection Capability
- Remote Keyboard Interface
- Speaker and Microphone Interface
- PC Remote and Local Management
- Rechargeable Battery Supply
- ABS Casing

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### GSM module

**Quad-band**

**SIM card interface** 3V

**Antenna connector** SMA

**GPS module***

- 12-parallel channel GPS receiver
- 1 second update rate
- Accuracy position = 15m, 95% typical
- (100m with selective availability on)
- Sensitivity -165 dBW min.
- Antenna connector SMA

(*) - only for ADVANCE and REFERENCE models

(**) - only for REFERENCE model

(*** - only for MGR100G models with GPS receiver

### MGR100

<table>
<thead>
<tr>
<th>Model</th>
<th>Power supply</th>
<th>Accumulator (option)</th>
<th>Relays*</th>
<th>Digital outputs*</th>
<th>Digital inputs</th>
<th>Analog inputs*</th>
<th>Temperature sensor interface*</th>
<th>I2C interface</th>
<th>Audio interface*</th>
<th>Digital inputs</th>
<th>RS-232/RS-485 interface</th>
<th>Audio interface</th>
<th>LEDS</th>
<th>Temperature sensor interface</th>
<th>Power supply</th>
<th>SIM card interface</th>
<th>GSM module</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGR 100 Basic</td>
<td>12.30 Vdc</td>
<td>1, the same voltage as power supply</td>
<td>2 x NO/COM, 2 x NO/NC/COM</td>
<td>4, open-collector</td>
<td>8 NO, TTL, 12V</td>
<td>6 (4, 0-30 Vdc: 10 bit, ±2LSB)</td>
<td>3 I2C interface</td>
<td>1 I2C interface</td>
<td>1 RS-232</td>
<td>1 I2C interface</td>
<td>1 speaker, microphone</td>
<td>1 I2C interface</td>
<td>1 I2C interface</td>
<td>1 I2C interface</td>
<td>1 RS-232</td>
<td>1 RS-232</td>
<td>E-GSM-900, GSM-850, DCS-1800, PCS-1900</td>
</tr>
<tr>
<td>MGR 100G Basic</td>
<td>12.30 Vdc</td>
<td>1, the same voltage as power supply</td>
<td>2 x NO/COM, 2 x NO/NC/COM</td>
<td>4, open-collector</td>
<td>8 NO, TTL, 12V</td>
<td>6 (4, 0-30 Vdc: 10 bit, ±2LSB)</td>
<td>3 I2C interface</td>
<td>1 I2C interface</td>
<td>1 RS-232</td>
<td>1 I2C interface</td>
<td>1 speaker, microphone</td>
<td>1 I2C interface</td>
<td>1 I2C interface</td>
<td>1 I2C interface</td>
<td>1 RS-232</td>
<td>1 RS-232</td>
<td>E-GSM-900, GSM-850, DCS-1800, PCS-1900</td>
</tr>
<tr>
<td>MGR 100W Basic</td>
<td>12.30 Vdc</td>
<td>1, the same voltage as power supply</td>
<td>2 x NO/COM, 2 x NO/NC/COM</td>
<td>4, open-collector</td>
<td>8 NO, TTL, 12V</td>
<td>6 (4, 0-30 Vdc: 10 bit, ±2LSB)</td>
<td>3 I2C interface</td>
<td>1 I2C interface</td>
<td>1 RS-232</td>
<td>1 I2C interface</td>
<td>1 speaker, microphone</td>
<td>1 I2C interface</td>
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<td>E-GSM-900, GSM-850, DCS-1800, PCS-1900</td>
</tr>
<tr>
<td>MGR 100GW Basic</td>
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<td>1, the same voltage as power supply</td>
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<td>4, open-collector</td>
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<tr>
<td>MGR 100 Advance</td>
<td>12.30 Vdc</td>
<td>1, the same voltage as power supply</td>
<td>2 x NO/COM, 2 x NO/NC/COM</td>
<td>4, open-collector</td>
<td>8 NO, TTL, 12V</td>
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<tr>
<td>MGR 100 Reference</td>
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</tr>
</tbody>
</table>

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### Diagram

![Diagram of GSM Alarm and Remote Control Units](image)
 od INFINITY

INFINITY   
ALARM: ACCU=21.0V
Accessories

Synchronization of color of lighting for complete group of multi-color RGB lights when automatical changing of color of lighting through the complete rainbow spectrum is selected and controlled by using optional momentary switch.

**Synchronization Unit MSU08**

- Input voltage 12-24 Vdc
- Consumption max. 10 mAdc
- Operating temperature -10°C - +50°C
- Casing ABS
- Protection IP 65
- Dimensions max. 181x122x55.5mm
- Weight 0.3 kg

Dimming of single-color lights or group of lights by using optional momentary switch. Three-color light control with dimming and changing of color of lighting manually or automatically through the complete rainbow spectrum by using optional momentary switch. Built-in ASTEL protocol to control single-color lights or three-color lights by using optional DMX512 interface MXU01 or MXU03.

**PWM Dimmer MDU13**

- Input voltage 12-24 Vdc
- Consumption max. 10 mAdc
- ASTEL protocol default address 1
- Operating temperature -10°C - +50°C
- Casing ABS
- Protection IP 65
- Dimensions max. 106x122x55.5mm
- Weight 0.2 kg

- 8 Synchronization Outputs
- Wide Range Power Supply
- Low Power Consumption
- Polarity Protection
- Transient Protection
- Short Circuit Output Protection
- Simple Installation

- 3 Control Outputs
- Adjustable PWM Frequency
- Wide Range Power Supply
- Low Power Consumption
- Polarity Protection
- Transient Protection
- Short Circuit Output Protection
- Simple Installation
DMX512 to ASTEL protocol multi-light converter to control multi-color RGB lights or one group of multi-color RGB lights with built-in ASTEL protocol or to control single-color light or one group of single-color lights by the help of PWM Dimmer MDU13 with built-in ASTEL protocol.

**DMX512 Interface MXU01**

- Input voltage: 12-24 Vdc
- Consumption: max. 50 mA dc
- Operating temperature: -10°C to +50°C
- Casing: ABS
- Dimensions: max. 67x80x21 mm
- Weight: 0.1 kg

**DMX512 Interface MXU03**

- Input voltage: 12-24 Vdc
- Consumption: max. 50 mA dc
- Operating temperature: -10°C to +50°C
- Casing: ABS
- Protection: IP 65
- Dimensions: max. 106x122x55.5 mm
- Weight: 0.2 kg

**Accessories**

DMX512 to ASTEL protocol multi-light converter to control multi-color RGB lights or up to 3 groups of multi-color RGB lights with built-in ASTEL protocol or to control single-color lights or up to 3 groups of single-color lights by the help of PWM Dimmers MDU13 with built-in ASTEL protocol.

- 1 Control Output
- DIP-switch Programmable
- Multi-Speed Mode
- Wide Range Power Supply
- Low Power Consumption
- Polarity Protection
- Transient Protection
- Short Circuit Output Protection
- Simple Installation

DMX512 to ASTEL protocol multi-light converter to control multi-color RGB lights or up to 3 groups of multi-color RGB lights with built-in ASTEL protocol or to control single-color lights or up to 3 groups of single-color lights by the help of PWM Dimmers MDU13 with built-in ASTEL protocol.

- 3 Control Outputs
- DIP-switch Programmable
- Low Speed Mode
- Wide Range Power Supply
- Low Power Consumption
- Polarity Protection
- Transient Protection
- Short Circuit Output Protection
- Simple Installation
Accessories

To protect the Underwater LED Lights against galvanic corrosion where the underwater lights are installed on steel or aluminium hull.

To connect the Wireless Yacht Control System to the special electronic control heads or to connect to the second electronic control head, connection cable enclosed.

- Multi-Control Relay Outputs
- LED indicators
- Wide Range Power Supply
- Low Power Consumption
- ABS Casings with IP65 and IP67 Protection

**Isolation Board IB01**
- Thickness: 1 mm
- Material: polycarbonate

**Underwater Light series**
- EQ06 for Equator MSR0640 series
- EQ12 for Equator MSR1280 series
- EQ36 for Equator MSR36240 series
- CU06 for Conus MST0680 and MSR0680 series
- CU18 for Conus MST18240 and MSR18240 series
- CX06 for Convex MST0680 and MSR0680 series
- CX18 for Convex MST18240 and MSR18240 series
- PQ06 for Plaque MFM0680 series
- PQ18 for Plaque MFM18240 series

**Superyacht Underwater Light series**
- EQ36P for Equator MSR36240P series

**Additional Control Unit MYW868BE**
- Power requirement: 12 – 24Vdc
- Consumption: max. 300 mA
- Operating temperature: 0°C - +50°C
- Casing: ABS, IP65 Protection
- Dimensions (L x W x H): 160 x 100 x 55 mm
- Weight: 0.3 kg

To install the Superyacht Underwater LED Lights. Enables reliable installation and maintenance. Made of material as specially requested.