



SeaLED 300 Subsea Light

USER MANUAL



Revision History

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Contents

Contact.....	3
Safety information	3
Warranty.....	3
1 General Description.....	4
1.1 Regarding these Instructions for Use.....	4
1.2 The SeaLED 300 / SeaLED 300L Subsea LED Light.....	4
1.3 Main Features.....	4
2 Technical Specification	5
2.1 Connector Configuration	5
2.2 Serial commands.....	6
2.3 Analogue input (0 – 10V).....	6
3 Mechanical Installation	6
4 Electrical installation.....	7
5 Operational procedures.....	7
5.1 Hazards and protective measures.....	7
5.2 Temperature protection:	7
5.3 Power on:.....	7
6 Maintenance	7
6.1 General maintenance	7
6.2 Service and Repair.....	8
7 Packing & Shipping.....	8



Contact

for assistance / clarification on any of the contents of this manual, please contact:

Imenco AS

Subsea Electronics

Kophaug 3

5570 Akdsdal NORWAY

Tel: +47 52 86 41 00

E-mail:

Safety information

IMPORTANT! The Imenco SeaLED 300 Subsea Light is a technically advanced product. Please make sure to read and understand all sections of this manual before installing or operating this product. Installation of this product should only be performed by qualified personnel.

WARNING! This product contains no user serviceable parts. *Do not open, alter or disassemble this product.* Failure to comply with this warning can result in damage to equipment and void of warranty.

WARNING! *The housing is NOT connected to any Protective Earth circuits.*

The metal housing has no electrical contact with any of the circuits inside the SeaLED 300. This is to isolate the Lights housing from other equipment that includes dangerous high voltage and to minimize corrosion that otherwise might be intensified by electrical contact to other nearby metal equipment or structures exposed to the sea water.

Warranty

Be sure to read and comply with **Imenco's Terms & Conditions** that the SeaLED 300 was sold under.



1 General Description

1.1 Regarding these Instructions for Use

The intended use of these instructions is to provide and guide the operator / user of the equipment with instructions on the technical specifics of the product, how it functions, the safety aspects of its use, how to prepare, operate and maintain the product.

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1.2 The SeaLED 300 / SeaLED 300L Subsea LED Light

The SeaLED 300 is a high output LED light primarily designed as a ROV main / flood light. The SeaLED 300 incorporates twelve high efficient LED modules producing a proximally 12.000 Lumen, equivalent of a 600 watt halogen light.

The SeaLED 300 can be dimmed by Triac-dimmer on power source or by RS-232 / RS-485 serial commands.

1.3 Main Features

- Compact High output unit
- Block or Bar layout
- Temperature protected
- 110VAC/DC power
- Various control methods
- Standard and Wide Angle versions
- 3.200 Kelvin or 5.000 Kelvin colour temperature



2 Technical Specification

Light output	12.000 Lumen
Light color temperature	3.200 K or 5.000 K
View port material	Acrylic
Light fan angle	40° or 75°
Light control	Triac, RS232 / RS485
Connector	Customer specified
Housing material	Anodized Aluminium
Maximum depth	6.000 / 4.000 msw
Mass in air	2.5 Kg
Mass in seawater	1.3 Kg
Length, ex connector	196 mm / 500 mm
Width	108 mm / 80 mm
Height	60 mm / 60 mm
Power input	110VAC/DC - max 176 W
Operating temperature range	0°C to +40°C

2.1 Connector Configuration

The SeaLED 300 can be delivered with a wide range connectors and pin configurations. The configuration for this specific item is in the Quality Control document on the last page.

WARNING! *Turn the power off before connecting or disconnecting the connector.*



2.2 Serial commands

The SeaLED 300 is supplied with a simple light GUI for setup and control:

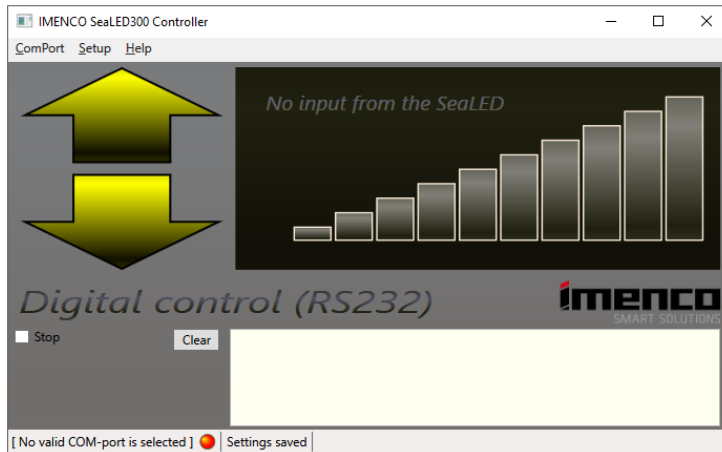


Fig. 1 – Light control GUI

The GUI sends commands to the light unit, there is no feedback from the unit to the GUI.

FUNC 23 = Light up

FUNC 24 = Light down

FUNC 90 = Activate analogue input

FUNC 91 = Deactivate analogue input

Serial Protocol = 9600 N 8 1 (end char = Carriage Return)

2.3 Analogue input (0 – 10V)

Not Available

3 Mechanical Installation

Installation of this product should only be performed by qualified personnel.

Do not open the Light when carrying out the installation.

Mount the Light on a secure and vibration free surface and strap the cable for stress relief to the supporting structure.

The Light should be electrically isolated from the mounting base in order to minimize any corrosion current between the relatively housing and surrounding metal structures.



4 Electrical installation

IMPORTANT!

- Installation of this product should only be performed by qualified personnel.
- Verify that the connector pin assignments match with the system where the Light is being installed. Mind the connector pin numbers and wire colours as necessary.
- Do not connect /disconnect the subsea connector when the power is ON.

5 Operational procedures

5.1 Hazards and protective measures

The SeaLED 300 does not generate or use dangerous high electrical voltages. Follow the safety information at the beginning of this manual.

5.2 Temperature protection:

The SeaLED 300 has a built in temperature sensor which will regulate the current to the LEDs so the unit does not overheat. Still, do not use for long periods of time on the surface or in direct sun. The light output will start dimming at 45°C internal temperature.

5.3 Power on:

When applying power, there is a 4 second delay before the unit outputs light.

6 Maintenance

6.1 General maintenance

After use in seawater or other corrosive environments, rinse the unit and cables in fresh water.

Inspect the front port for dirt and dust and remove any surface dirt using compressed air. Clean the front port glass using a mild detergent and a soft cloth. Do not use alcohol or solvent based cleaning solutions because that could damage the pressure seals and glass coating. Avoid circular wiping patterns.

Reapply silicon based lubricant to the connector regularly as needed.



SeaLED 300 - User Manual

6.2 Service and Repair

This product contains no user serviceable parts. Service and modifications are to be carried out by Imenco personnel or by qualified third party after appointment. Failure to comply may result in personal injury, damage to equipment and loss of warranty.

If the SeaLED 300 seems to be not working properly, please try to speed up the service that Imenco can provide by describing the problem in specific terms from the person who have first handed observed the fault. Remember if necessary to describe the system where the SeaLED 300 is installed since the root cause sometimes can originate outside a failing part in an advanced system.

7 Packing & Shipping

The packing & shipping of the goods shall generally be according to Imenco's approved procedures.

Warning: *The SeaLED 300 includes fragile parts which must not be subject to vibrations and shock during transport.*

The subsea connector should be protected with a dust cap whenever it is not connected to a cable.

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