



OPERATING MANUAL

DAY SIGNALLING SEARCHLIGHT
HML-ISO 35

History of Changes

Issue	Rev.	Date	Chapter	Remarks
2	0	16.12.2016	ALL	New Issue Implementing Battery Charger, New Certificates, New Declaration of Conformity

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1. About these instructions

1.1 Symbols and guidance signs in these instructions



Danger! There is a risk to life and limb if the warning is not followed.



Risk of electric shock! There is a risk to life and limb from electricity if the warning is not followed.



Attention! There is a risk to the environment and the device if the warning is not followed.



Use disposable gloves! Use disposable gloves for the following work to protect the material or your health.

1, 2, 3, ... **Operating steps**, that should take place in a certain order, are numbered sequentially.

- **Operating steps**, that only consist of one step or that do not have to be followed in a certain sequence, are marked with a point.

➔ **Feedback** from executed actions begins with an arrow.

- **Enumerations** begin with an enumeration line.

1.2 Who are these instructions for?

These instructions are intended for the personnel, that are assigned with the assembly or operation and maintenance of a WISKA searchlight Type HML-ISO 35.



Risk of electric shock! All electrical installation and repair work may only be carried out by a qualified electrician!

2. Safety

The following safety instructions have to be strictly followed! Otherwise you put yourself and others in danger.

2.1 General information

Intended use

The HML-ISO 35 searchlight is designed for sending light signals. The range (1 lux at target) of the searchlight is 300 m.

It is developed specially for use on ocean-going vessels and for safety applications on the coast. It complies with the **(EU) 2015/559 Marine Equipment Directive (Daylighting signalling lamp A.1/4.52)**, **IMO Resolution MSC.95(72)**, **ISO 25861:2007** and **EN 60945:2002** and is for ships of **150 gross tonnage and upwards according to SOLAS**. The Daylight signalling lamp has a type examination certificate from the DNV-GL (module B) with the No. **MEDB0000206**. The production of the HML-ISO 35 is subject to **Wiska Hoppmann & Mulsow GmbH quality**. **Wiska Hoppmann & Mulsow GmbH is certificate (production-quality assurance/ module D) from DNV-GL Notified Body 0098 with the No. MEDD00000J3**.



Danger! Unauthorised conversions and changes to the searchlight are not allowed, since this can endanger persons and may damage the unit. If this is not followed then the unit's approval becomes null and void.

Only original spare parts may be used. If this is not followed then the guarantee rights become null and void.



Risk of getting burned! Never touch the lamp during operation. It can reach 180 °C. Always allow the searchlight to cool down before maintenance and repair work. In case of burns cool the injured area immediately and seek medical help.

2.2 How to handle halogen lamps

Transport



- Always store and transport halogen lamps in such a way that the glass bulb cannot break.
- Leave the lamp in its packing until it will be used.
- Use the packing when transporting the lamp.
- Never touch the lamp with your fingers.

Operation



- Check the lamp before installation for fingerprints and dirt. Remove fingerprints on the lamp before installation with an alcohol solution and a soft lint-free cloth.
- Use disposable gloves when handling the lamp. Every fingerprint or other contamination on the glass bulb of the lamp greatly reduces its lifetime.
- Check the lamp for scratches, cracks or other damage. Do not continue using damaged lamps.

Lifetime

The average lifetime of the halogen lamp is 2,000 hours.

Disposal

Dispose of the defective halogen lamps properly. Special disposal requirements are not specified.

2.3 Safety devices

Radiation / escape of dangerous particles

If the halogen lamp explodes during operation, the casing remains intact and contains any heated glass splinters.

Overload protection

Electrical means of overload protection, such as fuses have to be provided by the customer. Refer to chapter 3.2 *Technical Specifications* regarding the power of the unit.

2.4 Operating conditions

Protection class

The searchlight has protection class IP56 (protected against dust and strong water jets) (as per IEC 60945:2002). To obtain this protection class all screwed parts have to be tight. Electrical lines may only be fed into the units using suitable cable inlets.

2.5 Maintenance / Cleaning

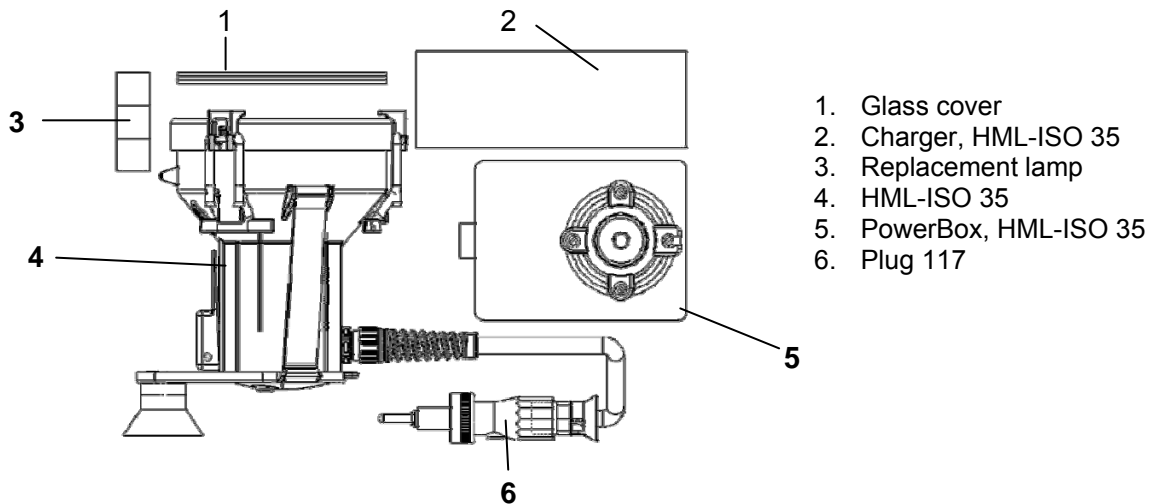
Before carrying out maintenance or cleaning work:

- Pull the mains plug out of the power socket.
- Make sure that the complete electrical system is de-energised.
- Wait until the searchlight has cooled down.

3. An overview of the unit

3.1 Layout drawing

Base configuration



1. Glass cover
2. Charger, HML-ISO 35
3. Replacement lamp
4. HML-ISO 35
5. PowerBox, HML-ISO 35
6. Plug 117

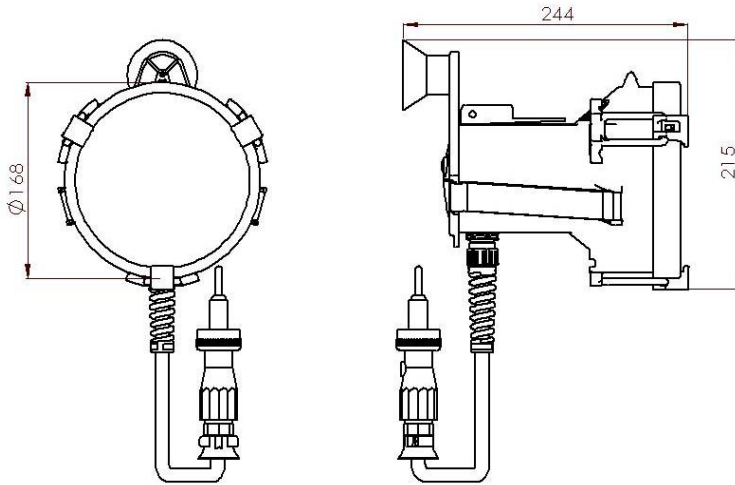
3.2 Technical Data

Searchlight, HML-ISO 35
 Manufacturer WISKA Hoppmann & Mulsow GmbH

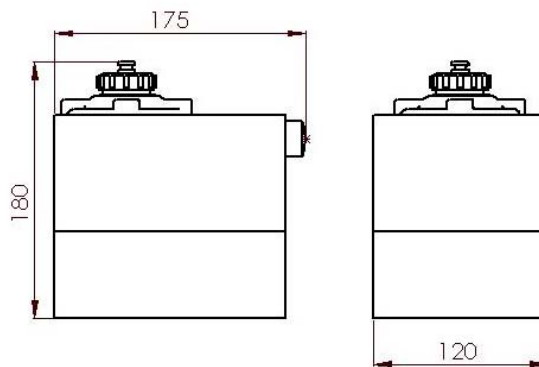
Type HML-ISO 35	
Illuminant	Halogen
Lamp holder	GY6,35
Operating voltage	(12-24)V DC
Light intensity	90,000 cd
Range	300 m
Diffusion angle	8° I/10
Lamp power	30 W
Average lamp lifetime	2,000 h
Mirror	Glass, 150mm
Material	Glass fibre reinforced plastic
Colour	RAL 9005, black
Diameter	160 mm
Depth	244 mm
Weight	1.8 kg
Protection rating	IP 56
Connection cable	5 m
Compass, safe distance	0,5m (Standard-Magnetic-compass) 0,4m (Steering-Magnetic-compass)
DNV-GL – Certificate No.	MEDB0000206
DNV-GL - Certificate No.	MEDD00000J3

3.3 Dimensions

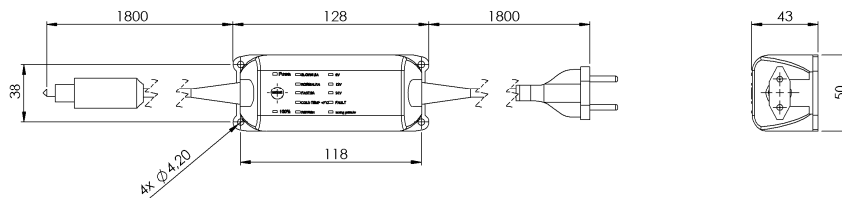
Searchlight head



PowerPack HML-ISO 35 (Option)

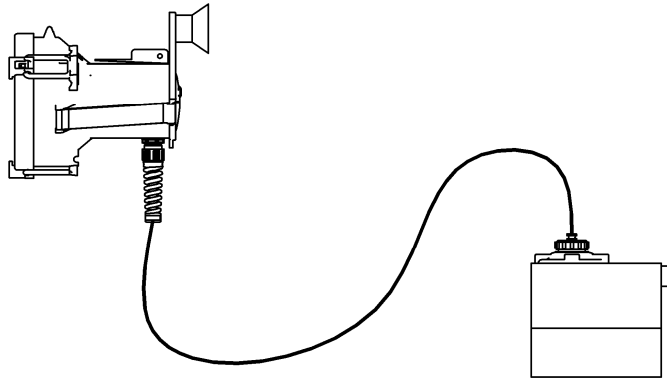


Charger (Option)

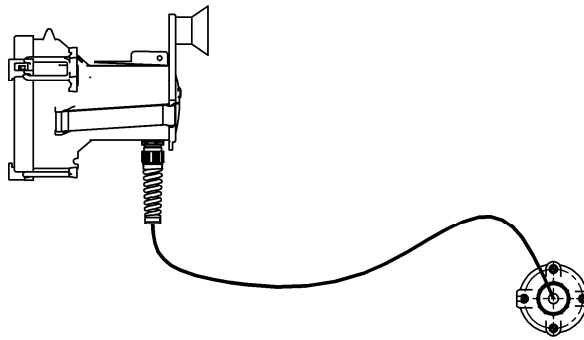


3.4 Circuit diagram

HML-ISO 35 with PowerPack HML-ISO 35

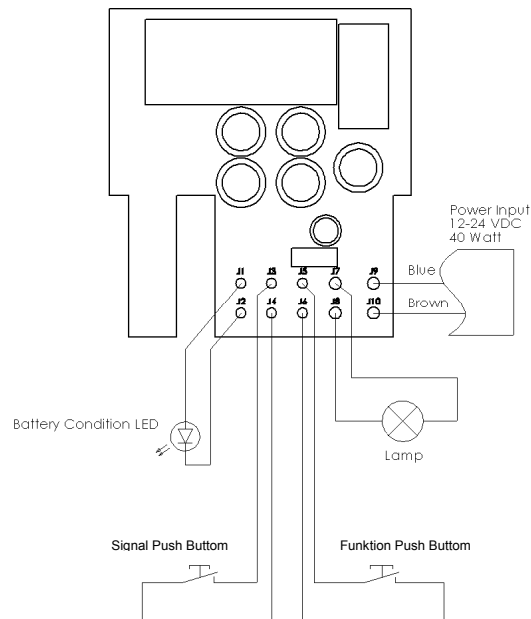


HML-ISO 35 with fixed connection (12V DC-24V DC) on a concentric socket (WISKA Type DK 503)



Cabling HML-ISO 35 internal

VOTAGE CONVERTER CONTROL BOARD



4. Commissioning

4.1 Unpacking

Check the delivery. Do not start the unit if there is transport damage or missing parts! Contact WISKA or our sales partner in your country. The address can be found at the back of these instructions or on the internet under www.wiska.de.

Think about the environment and send the packing for recycling!

4.2 Electrical connections



Risk of electric shock! Electrical connections may only be carried by a qualified electrician. Please ensure that the mains connection is off and that nobody can accidentally energise the connections during installation!

The circuit diagram is also included or can be found in chapter 3.4 *Circuit diagram*.

Electrical connection values (for fixed connections)

Mains voltage: 12V DC- 24V DC at 40 W

Socket: Concentric socket (WISKA Type DK 503)

Required mains fuse: see electrical drawing.

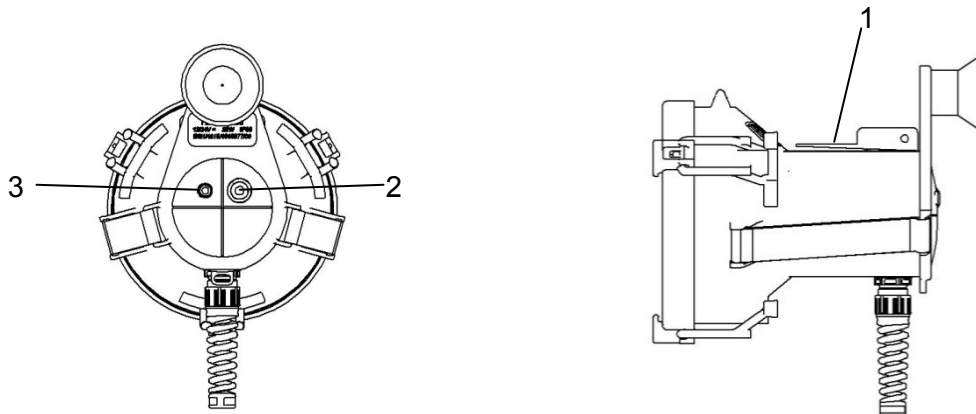
Mains connection

- Observe the relevant national and international regulations!

Before start-up

- Check for correct installation. Wrong connections can cause damage.
- Check for correct connection of the neutral / ground!
- Reinsert the fuse.

5. Operation



Signalling

Pressing the signal button (1) lights the searchlight, so that pressing and releasing of the button sends light signals.

Torch function

Pressing the signal button (1) and the function button (2) activates the torch mode. When doing so the lamp lights until one of either buttons is pressed.

SOS function

Pressing the function button (2) sends a permanent SOS signal. This can be stopped by pressing the signal button (1).

Attention: After starting the SOS function you can not stop immediately the function by pressing the function button (2)!

Battery status display

The battery status display (3) lights up if the input voltage is too low. If using the PowerPack HML-ISO 35 it should be recharged. (Read Chapter 6.2 *Charging the PowerPack ISO 35*)

6. Maintenance

6.1 Cleaning

Clean the front glass on the outside as needed. Cleaning the inside of the searchlight is not necessary.

6.2 Charging the PowerPack ISO 35



Warning! Explosive gases are generated when charging lead batteries. Please ensure adequate ventilation and avoid fire or naked light.

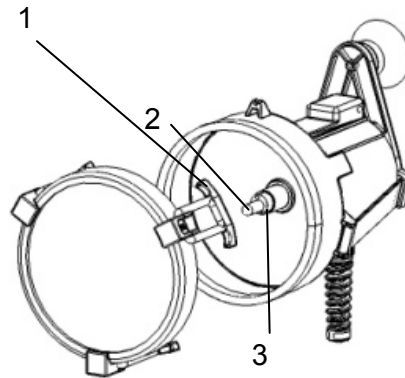
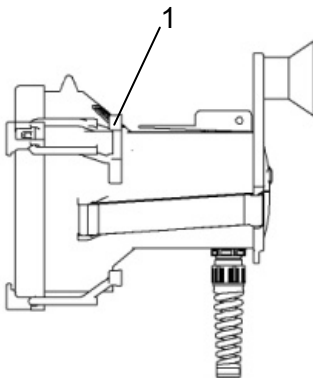
Connect the PowerPack ISO 35 with the charger. Open the concentric socket cover on the PowerPack ISO 35. Plug the charger into the mains socket. The green "Power" LED indicates standby mode. After making contact the unit begins charging the PowerPack's ISO 35 automatically. The red LED indicates the charging process. Once charging is complete the red LED goes off. The PowerPack ISO 35 is buffered with a trickle current after charging. If the red LED is off the PowerPack ISO 35 is charged, and can be removed from the charger. Disconnect the charger from the mains after use.

7. Replacement of defective parts

7.1 Before starting work

1. Switch off the unit, e.g. by pulling the concentric plug.
2. Wait until the searchlight has cooled down.
3. Read chapter 2.2 *How to handle halogen lamps*.
4. Make sure that the halogen lamp does not get damaged during handling.

7.2 Assembly overview



7.3 Lamp replacement

The lamp is defective, if

- it does not light up after switching on,
- the lamp electrodes are burned out,
- the glass bulb is black.

Replace the lamp also if it has reached its average lifetime of 2,000 hours.

Lamp replacement:

1. Disengage the quick releases 1 on the front side and put the front glass carefully to one side.

Note: The halogen lamp 2 plugs in perpendicularly in the lamp holder 3.

2. Pull the defective lamp straight up out of the holder.
3. Place the defective lamp to one side without breaking it.
4. Open the packing of the new lamp.



Attention! Before installing the new lamp check it for fingerprints, scratches or cracks. Do not use damaged lamps. Remove any fingerprints or dirt with an alcohol solution and a soft lint-free cloth.

1. Make sure not to touch the lamp's glass bulb with your fingers. Use disposable gloves when handling the lamp to avoid leaving fingerprints.
2. Plug the new lamp into the lamp holder.
3. Reinsert the front glass and close the quick releases.
4. Dispose of the defective halogen lamp properly.

8. Disposal

Electrical components contain substances which are hazardous for the environment. Ensure proper disposal or send the defect parts to WISKA. The address is on the back page of these instructions.

9. Spare parts

Searchlight head HML-ISO 35

Designation	Art. no.
Surrounding frame, HML-ISO 35	22000456
Glass, clear HML-ISO 35	22000457
Mirror unit HML-ISO 35	22000458
Button unit HML-ISO 35	22000459
Quick release rubber HML-ISO 35	22000460
Lamp holder GY6.35 HML-ISO 35	22000461
Halogen lamp 30W, 12VDC; GY6.35	22000470
Concentric plug 117 sw	22000463

Additional parts

Designation	Art. no.
Concentric socket DK 503 for flush-mounting	22000464
PowerPack ISO 35	22000465
Charger, HML-ISO 35	22000466
Front glass, blue HML-ISO 35	22000467
Front glass, green HML-ISO 35	22000468
Front glass, red HML-ISO 35	22000469
Concentric socket 503 1xPG16	10010003
Extension cable 10m (concentric)	10101233

All other parts can be obtained by contacting WISKA sales.

10. Type examination certificate



WISKA Hoppmann & Mulsow GmbH
Kisdorfer Weg 28
24568 Kaltenkirchen
Germany



declares that the following product:

Product designation: Daylight signalling lamp

Type designation: HML-ISO 35

Approval number: MEDB0000206 (Module B)
MEDD00000J3 (Module D)

Description: Daylight signaling lamp

corresponds to all the relevant provisions of the directives listed below and valid harmonized and / or international and national standards - including all applicable changes at this time of issuing this document.

Directive

Commission Directive (EU) 2015/559
Annex A.1, item No. A1/4.52
Amending Marine Equipment Directive
2014/90/EU

Regulation SOLAS 74, as amended, where
"type approval" is required

Regulations of SOLAS 74, as amended,
and relevant resolutions and circulars of the
IMO, as applicable

Standard

EN 60945:2002 including IEC 60945
corrigendum 1 (2008)
ISO 25861 (2007)

Reg. V/18
Reg. X/3
IMO Res. MSC.36(63)-(1994 HSC Code)
IMO Res. MSC.97(73)-(2000 HSC Code)
Reg. V/19
IMO Res. A694(17)
IMO Res. MSC.36(63)-(1994 HSC Code)
IMO Res. MSC.95(73)
IMO Res. MSC.97(73)-(2000 HSC Code)

Notified Body No.:



0098/YY

Name and address of the person who
is authorized to compile the technical
documentation together:

WISKA Hoppmann & Mulsow GmbH
Kisdorfer Weg 28
24568 Kaltenkirchen / Germany

Kaltenkirchen, 2016-02-12

Head of Development



DNV·GL

Certificate No:
MEDD00000J3

QS - CERTIFICATE OF ASSESSMENT - EC (MODULE D)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Quality System for the products

with type designation(s) as specified in the Appendix to this Certificate

Issued to

**WISKA Hoppmann & Mulsow GmbH
Kaltenkirchen Schleswig-Holstein, Germany**

is found to comply with the applicable requirements.
The quality system has been assessed with respect to the procedure of conformity assessment described in Annex II, Module D in the directive 2014/90/EU and regulation (EU) 2015/559.

This Certificate is valid until **2021-07-24**.

Issued at **Hamburg** on **2016-12-06**

DNV GL local station:
Hamburg

Approval Engineer:
Andrea Grün



Notified Body
No.: **0098**



for **DNV GL SE**
Digitally Signed By: Mydlak-Röder, Christine
Location: DNV GL Hamburg, Germany
, on behalf of

Sven Dudzus
Head of Notified Body



0098/yyyy

0098: Notified Body number undertaking quality surveillance
yyyy: The year in which the mark is affixed

The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.
This certificate authorizes the manufacturer in conjunction with the valid EC Type Examination (Module B) Certificate(s) of the equipment listed before to affix the Mark of Conformity (wheelmark) to the product described herein.
This certificate loses its validity if the manufacturer makes any changes to the approved quality system, which have not been notified to, and agreed with the notified body named on this certificate. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.
The Manufacturer has to apply for periodical audits to verify the maintenance and application of the quality system every 12 months.



Form code: MED 211.DEU

Revision: 2016-11

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30100574007



Job Id: **344.1-005774-1**
Certificate No: **MEDD00000J3**

APPENDIX

Item no. A.1/4.52 Daylight signalling lamp

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
Daylight Signalling Lamp HML-ISO-35 ¹	MEDB0000206	2021-12-05	0098	N/A

Places of production

1. WISKA Hoppmann & Mulsow GmbH, Kisdorfer Weg 28, Kaltenkirchen, Germany



Certificate No:
MEDB0000206

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

That the Daylight signalling lamp

with type designation(s)
Daylight Signalling Lamp HML-ISO-35

Issued to

WISKA Hoppmann & Mulsow GmbH
Kaltenkirchen Schleswig-Holstein, Germany

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2015/559,
Annex A.1, item No. A.1/4.52 and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation V/18, V/19 & X/3, IMO Res. A.694(17), 2000 HSC Code 13 and IMO Res. MSC.95(72)

Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-12-05**.

Issued at **Hamburg** on **2016-12-06**

DNV GL local station:
Hamburg

Approval Engineer:
Andrea Grün



Notified Body
No.: **0098**



for **DNV GL SE**

Digitally Signed By: Mydlak-Röder, Christine

Location: DNV GL Hamburg, Germany

, on behalf of

Sven Dudzus
Head of Notified Body

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU. This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL SE of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled. Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

Job Id: **344.1-005774-2**
Certificate No: **MEDB0000206**

Product description

Daylight signalling lamp: HML-ISO-35
Lamp: Phillips Master Capsule 30W GY6.35 12V IR 1CT
Portable battery: Power Pack HML-ISO 35
Battery charger: HML-ISO 35

Application/Limitation

None

Type Examination documentation

Test Reports:	BSH/4612/4522125/12	dated 24-10-2012
	024-12	dated 08-02-2012
	240-16	dated 05-10-2016
	20161020-2	dated 20-10-2016
	161115-015 Issue 1.0	dated 11/2016
Drawings:	10102803-03	dated 05-10-2012
Operating Manual:	30100574007_HML-ISO_35A	Rev02122016

Tests carried out

Tested according to EN 60945 (2002) including IEC 60945 Corrigendum 1 (2008), ISO 25861 (2007) and MSC.95(72).


Marking of product


The HML main components are to be marked with:

- Manufacturer name
- Type designation
- Serial No.
- Mark of Conformity

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