



Navigation Lights



Signalling Lights



Searchlights



Whistles

TECHNICAL DOCUMENT

DHR**150/180/210/220 UC**-series
Remote Controlled Searchlights



Den Haan Rotterdam



FOREWORD

Den Haan Rotterdam is a family-owned company established in 1922. Started as a small tinsmith, it has evolved into a globally respected producer of navigation lights, searchlights, air horns and a wide range of nautical lamps made from copper and brass. By introducing products with advanced LED-technology, DHR has safeguarded a visibly safe future for marine vessels in all weather conditions.

Den Haan Rotterdam manufactures halogen searchlights for over 30 years and are known for their robustness, quality and reliability: key values for marine equipment. The UC-series is the most compact remote controlled searchlight-family of DHR. Because of its small size and simplicity it is the preferred choice for small boats and inland navigation vessels.

with the recent introduction of the Sealed Beam LED-replacements for the 150-& 180-series searchlight, the remote controlled UC-series has been available with LED-technology as well.

DEN HAAN ROTTERDAM B.V.

D.M. Den Haan
Managing Director



QUALITY STANDARDS



Incandescent Light Source



LED Technology



Remote control



Light Weight Construction



Excellent Optics



IP66 Water Ingress Protection



Maintenance Friendly



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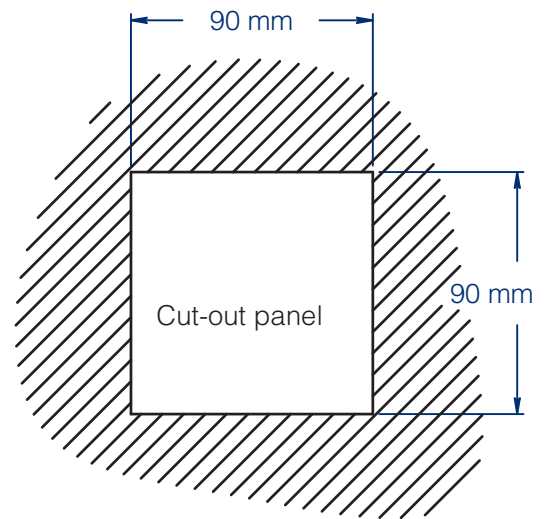
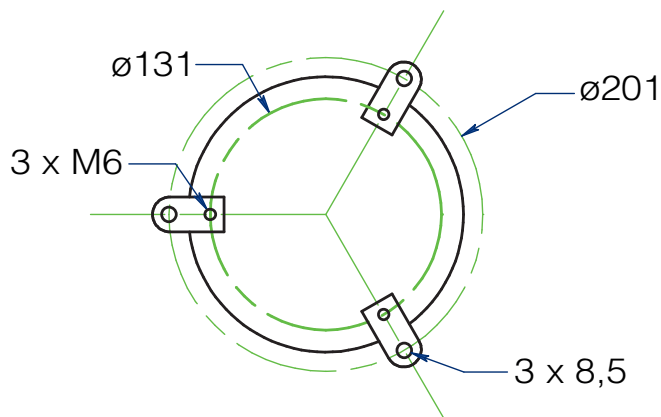
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1. MOUNTING INSTRUCTIONS

Mounting the panel

Place the control panel inside the wheelhouse, where it is protected against weather influences. The housing is especially constructed to be flush mounted in an instrument cabinet according the illustration on the right.

The minimum space needed behind the panel is 90 mm. (depth)



Searchlight installation

Install the searchlight in a horizontal upright position with sufficient space around the head of the searchlight to ensure it can move freely. The sticker on the motor housing indicates the front of the searchlight. The dimensions can be found on [page 7](#).

Electrical installation

Install the electrical wiring according to the wiring diagrams of [page 9 and 10](#). Keep the distance between the power supply and halogen lamp as short as possible. Long wires will increase a voltage drop near the halogen lamp, which affects the light output.



Warning!

Den Haan Rotterdam accepts no responsibility for any damage if the searchlight is installed incorrectly and/or used improperly. When in doubt consult a qualified electrical technician.

2. MAINTENANCE

Lamp replacement

1. Switch off the main power
Caution – hot lamp. Let the lamp cool down for at least 10 minutes before proceeding maintenance.
2. Open the drum
3. Remove the lamp from the lampholder
4. Ensure that the replacement lamp is of the same type
5. Take a clean cloth to place the new lamp
Do not touch the lamp with bare fingers, remove any fingerprints with a cloth and alcohol and rub it dry
6. Check the neoprene sealing of the front glass and rub it in with talcum powder
7. Close the drum
8. The searchlight is ready for use

Preventive maintenance

Clean the searchlight with clean water regularly. Do not use any aggressive cleaning agents.

3. SPECIFICATIONS CONTROL PANEL

- Pnom. : 15 W
- Unom.input : 12 – 24 VDC
- Unom.output motor (2x) : 4 – 10 VDC
- U output lamp : See input
- Protection class : IP 20
- Electrical insulation class : III
- Ambient temperature : 0 - 40°C

4. SPECIFICATIONS MOTOR HOUSING

- Pnom. motor : 6 W
- Unom. motor : 4 – 10 VDC
- Gear box - motor ratio : 1 : 370
- Tilt : + 15° / - 30°
- Max. Speed left / right approx. : 32°/ sec
- Max. Speed up / down approx. : 5° / sec
- Housing:
 - Material : Stainless steel 316
 - Finish : Brushed
 - Sealing : Neoprene, black
- Electrical insulation class : III
- Protection class : IPX5

All UC searchlights have an identical motor housing.

5. SPECIFICATIONS DHR150/180 HEAD

- Housing DHR180/150:
 - Material : Stainless steel 316
 - Finish : Brushed
 - Sealing : Silicone, black
- Electrical insulation class : III
- Optics : Polycarbonate lens
- Front : Borosilicate Toughened glass
- Protection class : IP 66
- Ambient temperature : -40°C / + 55°C

Lamp	Voltage	Power	Intensity	Beam angle (at 50%)	Range
150 LED Insert	10-32VDC	10W	200.000cd	3,5° x 2,5°	447m
180 LED Insert	10-32VDC	20W	300.000cd	3,5° x 2,5°	548m

6. SPECIFICATIONS DHR210/220 HEAD

- Housing 220/210:
 - Material : Chromated seawater resistant aluminium
 - Finish : UV-resistant powder coating, white RAL 9016
 - Sealing : Silicone, black (220 only)
- Electrical insulation class : I
- Optics : 210 - Sealed beam mirror reflector
: 220 – Aluminium reflector
- Protection class : 210 - IP X5
: 220 – IP66, c/w membrane vent
- Ambient temperature : -25°C / + 40°C

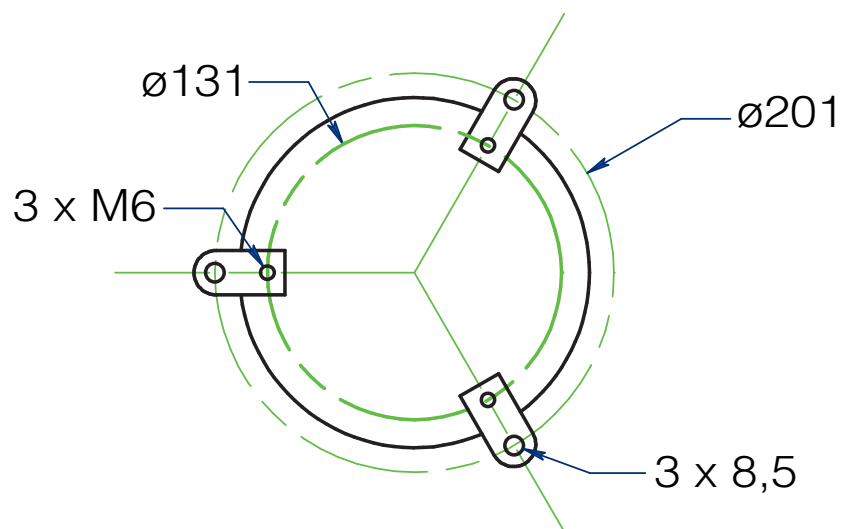
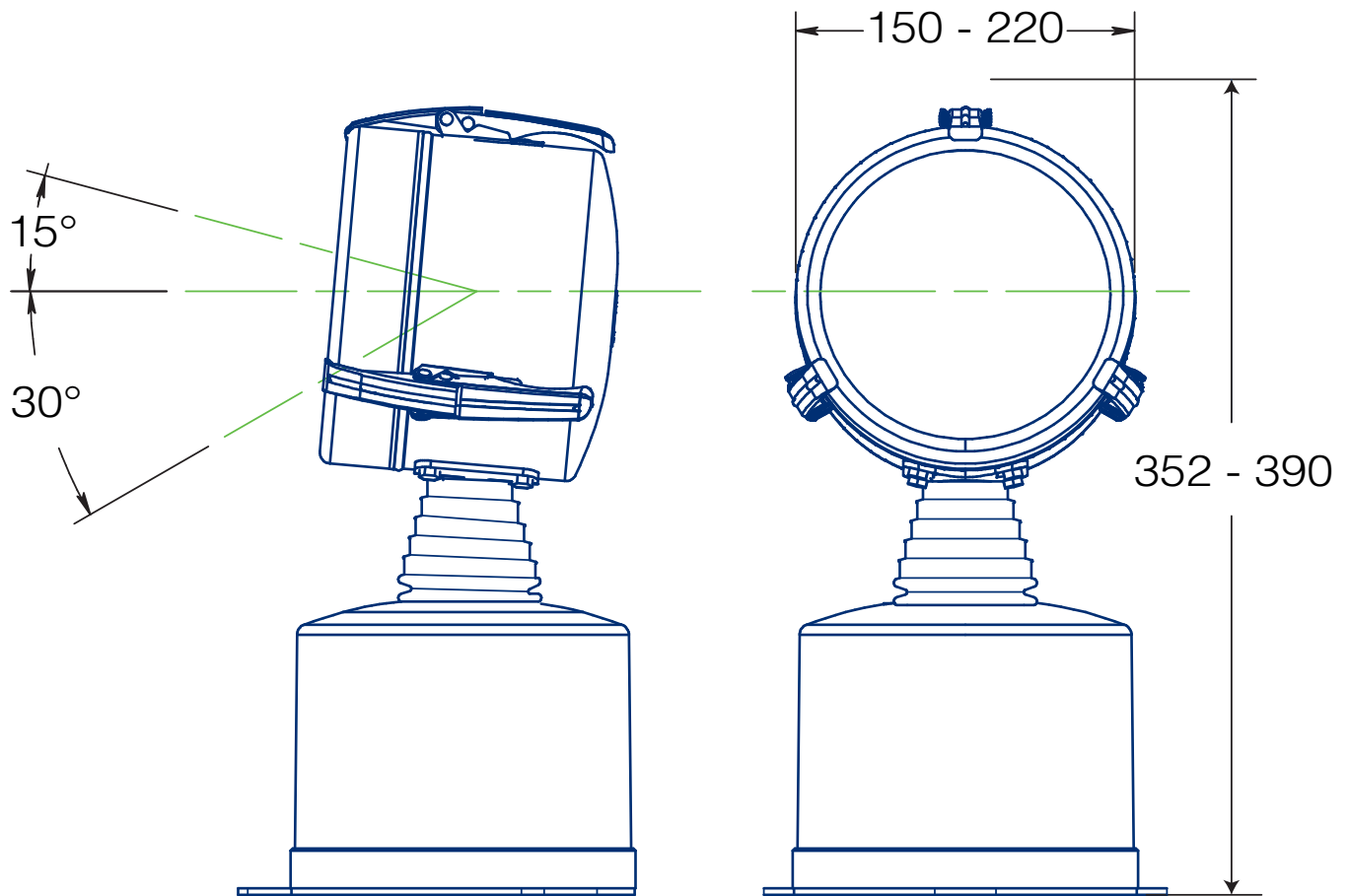
DHR220

Lamp	Voltage	Power	Intensity	Beam angle (at 50%)	Range
Halogen	230VAC	300W	120.000cd	15,5° x 21°	345m
Halogen	24VDC	250W	441.000cd	10° x 14°	664m
Halogen	12VDC	100W	131.000cd	9° x 16°	362m

DHR210

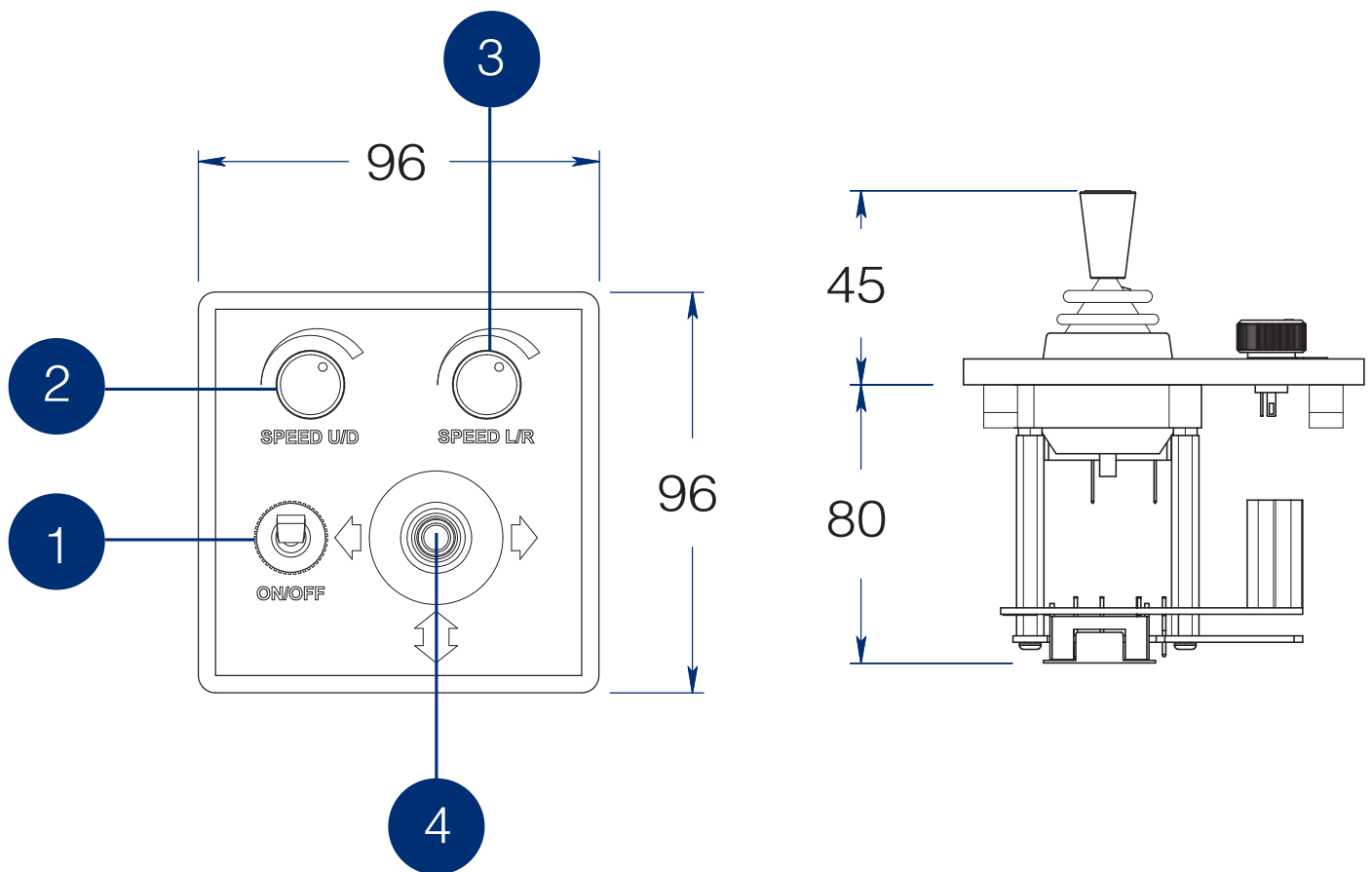
Lamp	Voltage	Power	Intensity	Beam angle (at 50%)	Range
PAR64	230VAC	1000W	400.000cd	17° x 20°	630m
PAR64	115VAC	1000W	400.000cd	10° x 24°	630m
PAR46	24VDC	250W	500.000cd	7° x 8°	700m

7. DIMENSIONS SEARCHLIGHT



All sizes are in mm.

8. DIMENSIONS CONTROL PANEL



All sizes are in mm.

Controls

Switches

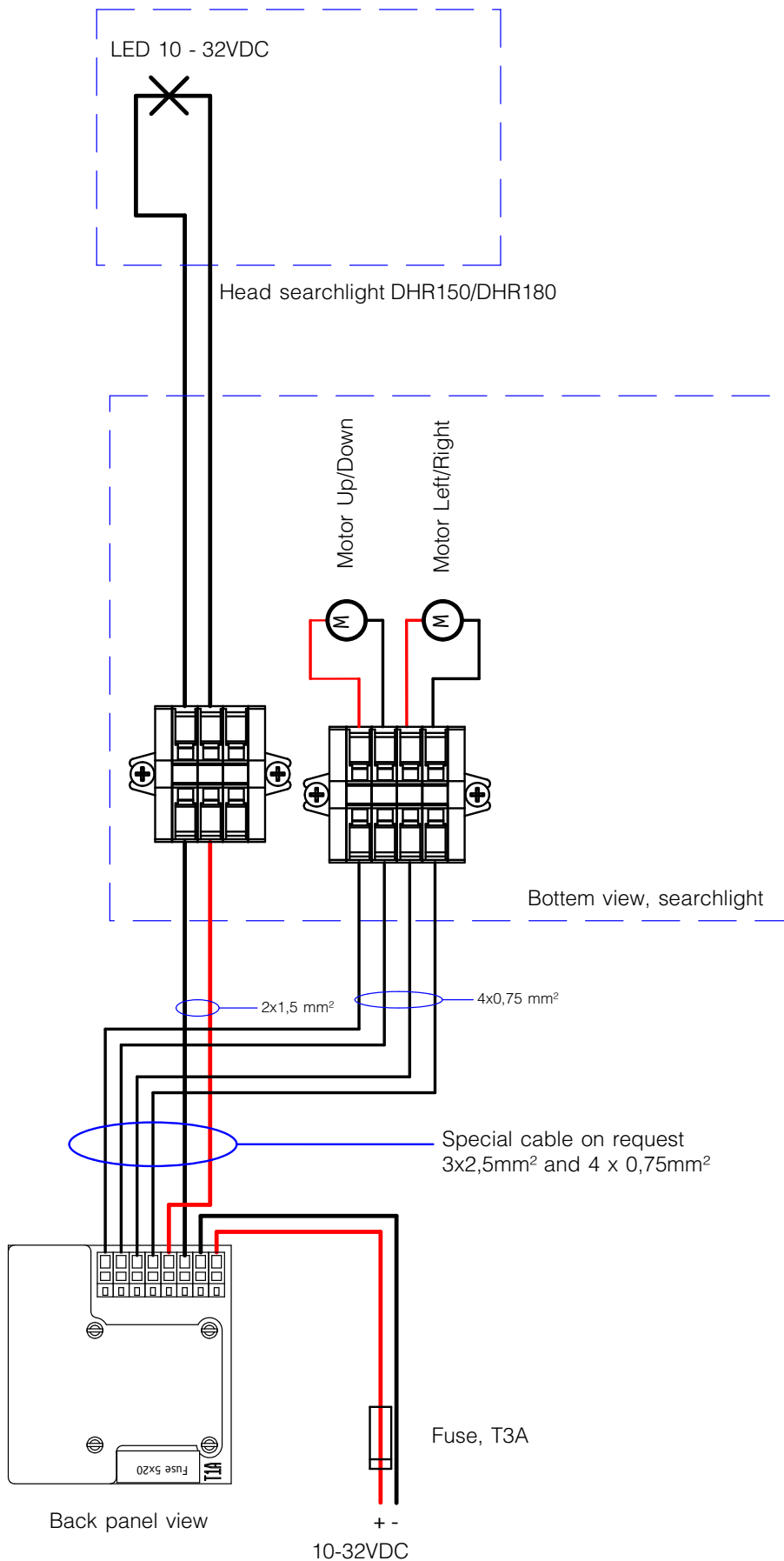
1. ON/OFF, switches the panel on or off.

Potentiometers

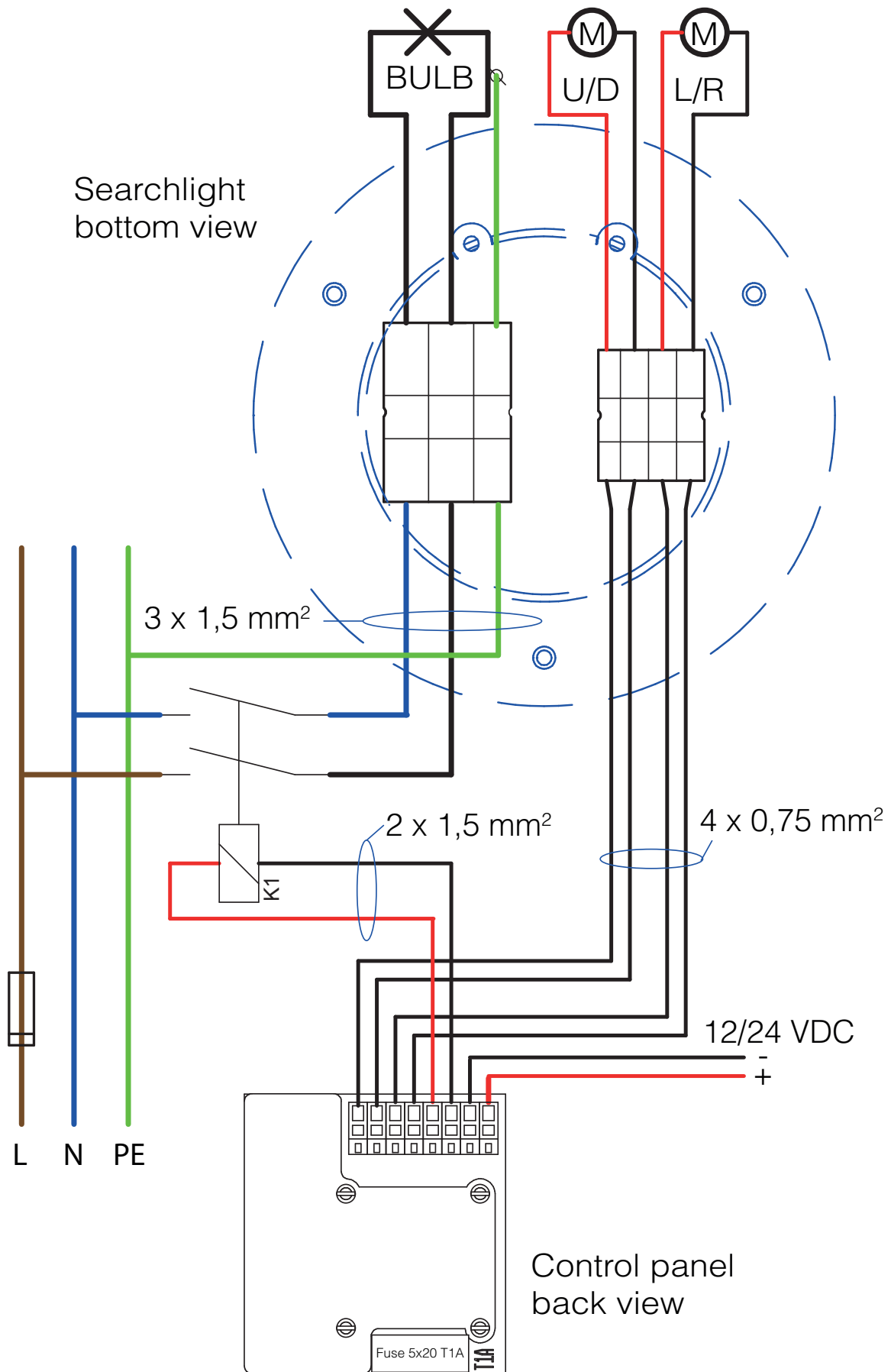
2. UP/DOWN, speed of the movement up and down.
3. LEFT/RIGHT, speed of the movement left and right.

4. Joystick, controls the direction of the movement.

9. WIRING DIAGRAM DHR150/DHR180 LED



10. WIRING DIAGRAM DHR210/DHR220





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ADVANCED MARITIME SIGNALLING SOLUTIONS



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