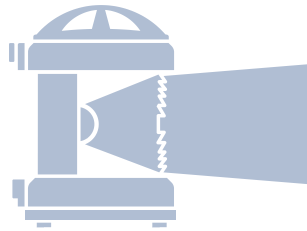


# TECHNICAL MANUAL

DHR70N



MED96/98/EC



*SINCE 1922*

**Den Haan Rotterdam**



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# TECHNICAL DATA

## Application:

- As Navigation light for all sea-going vessels with a length of more than 20 metres
- As Navigation light for all vessels in Rhine and European inland navigation
- As general signalling light

## In compliance with:

- International Regulations for Preventing Collisions at Sea; COLREG 72 and latest amendments
- Rhine and European inland navigation rules
- The Directives 96/98/EC and 82/714/EC, following the European standard: EN 14744 (2005) AC(2006), Inland navigation vessels and sea-going vessels - navigation light

## Materials:

- Housing, mat black, high-gride of polyamide, reinforced with fibre glass
- Cover, mat black, polycarbonate, reinforced with fibre glass
- Screen and mounting materials, stainless steel 316, seawater resistant, non-magnetic
- Fresnel lens, UV and shock resistant polycarbonate
- Internal wiring, silicone 2 x 1,5 mm<sup>2</sup>

## Min. visibility:

### Sector lights

Starboard - bright	3NM
Port - bright	3NM
Masthead - bright	6NM
Stern - bright	3NM
Towing - bright	3NM

### All-round

White - bright	3NM
Manoeuvring	5NM
Red - bright	3NM
Green - bright	3NM
Yellow - bright	3NM

## Electrical insulation class:

III, (double insulated)

## Protection class:

IP 56

## Bulb:

- P28S 230V 65W 60cd
- P28S 115V 60W 60cd
- P28S 24V 40W 60cd

## Operation temperature:

-25°C up to +55°C

## Mounting:

Base

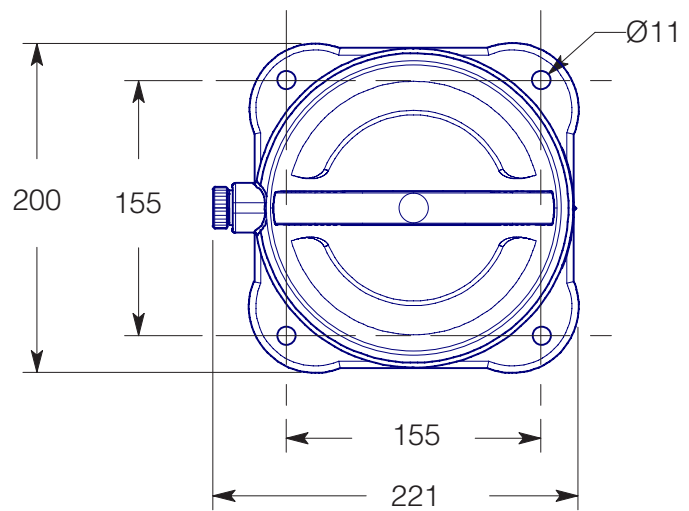
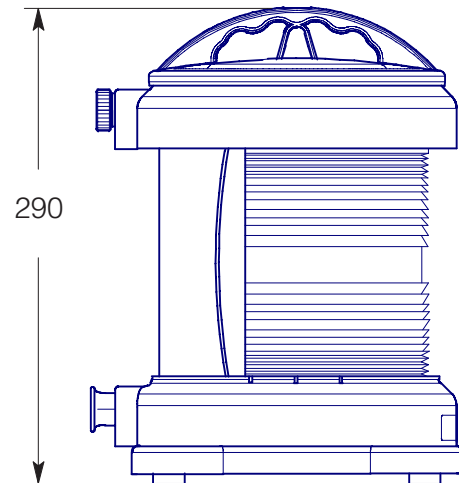
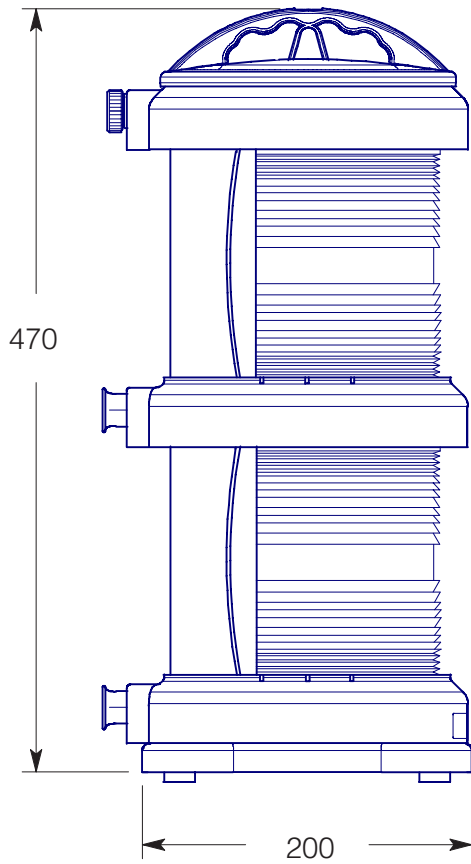
## External wiring:

- Single, 1 x 1,5 metre H07 RN-F 2X1,5
- Duplex, 2 x 1,5 metre H07 RN-F 2X1,5

# PRODUCT PHOTOS



# DIMENSIONS



All dimensions in mm.

# AVAILABLE MODELS

## DHR70N Single

Sector lights	Min. Visibility	Lamp cap	Approval	Art. Code
Starboard	3 NM	P28s	MED	70.11.00.00
Port	3 NM	P28s	MED	70.12.00.00
Masthead	6 NM	P28s	MED	70.13.00.00
Stern	3 NM	P28s	MED	70.14.00.00
Towing	3 NM	P28s	MED	70.14.09.00

Special sector lights	Min. Visibility	Lamp cap	Approval	Art. Code
Stern - Red (Suez light)	3 NM	P28s	Suez Canal	70.14.07.00

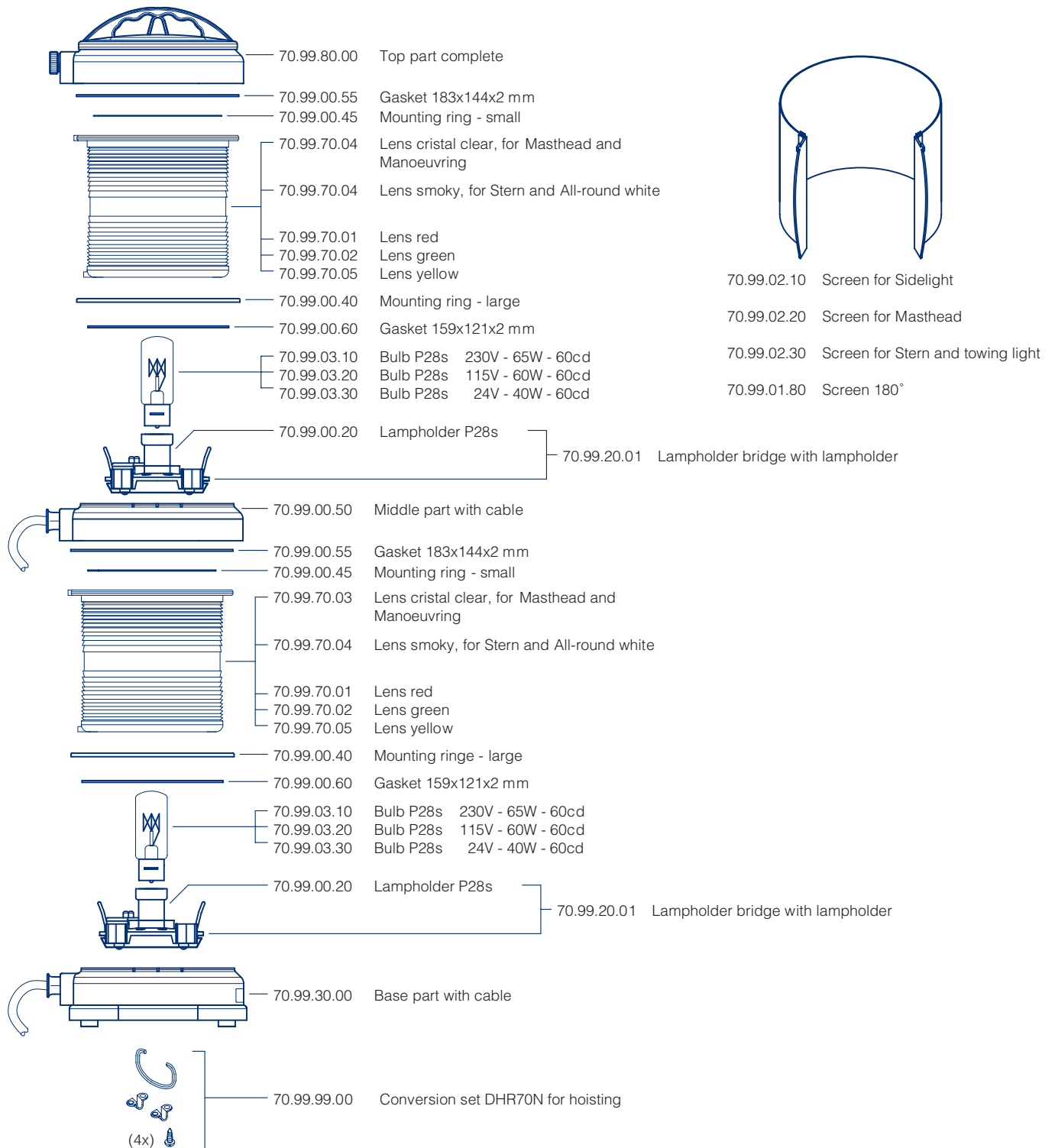
All-round lights	Min. Visibility	Lamp cap	Approval	All-round	180° Screened
White	3 NM	P28s	MED	70.16.00.00	70.16.01.80
Manoeuvring	5 NM	P28s	MED	70.16.10.00	-
Red	3 NM	P28s	MED	70.17.00.00	70.16.01.80
Green	3 NM	P28s	MED	70.18.00.00	70.16.01.80
Yellow	3 NM	P28s	MED	70.19.00.00	70.19.01.80

## DHR70N Duplex

Sector lights	Min. visibility	Lamp cap	Approval	Article code
Starboard	3 NM	P28s	MED	70.21.00.00
Port	3 NM	P28s	MED	70.22.00.00
Masthead	6 NM	P28s	MED	70.23.00.00
Stern	3 NM	P28s	MED	70.24.00.00
Towing	3 NM	P28s	MED	70.25.00.00

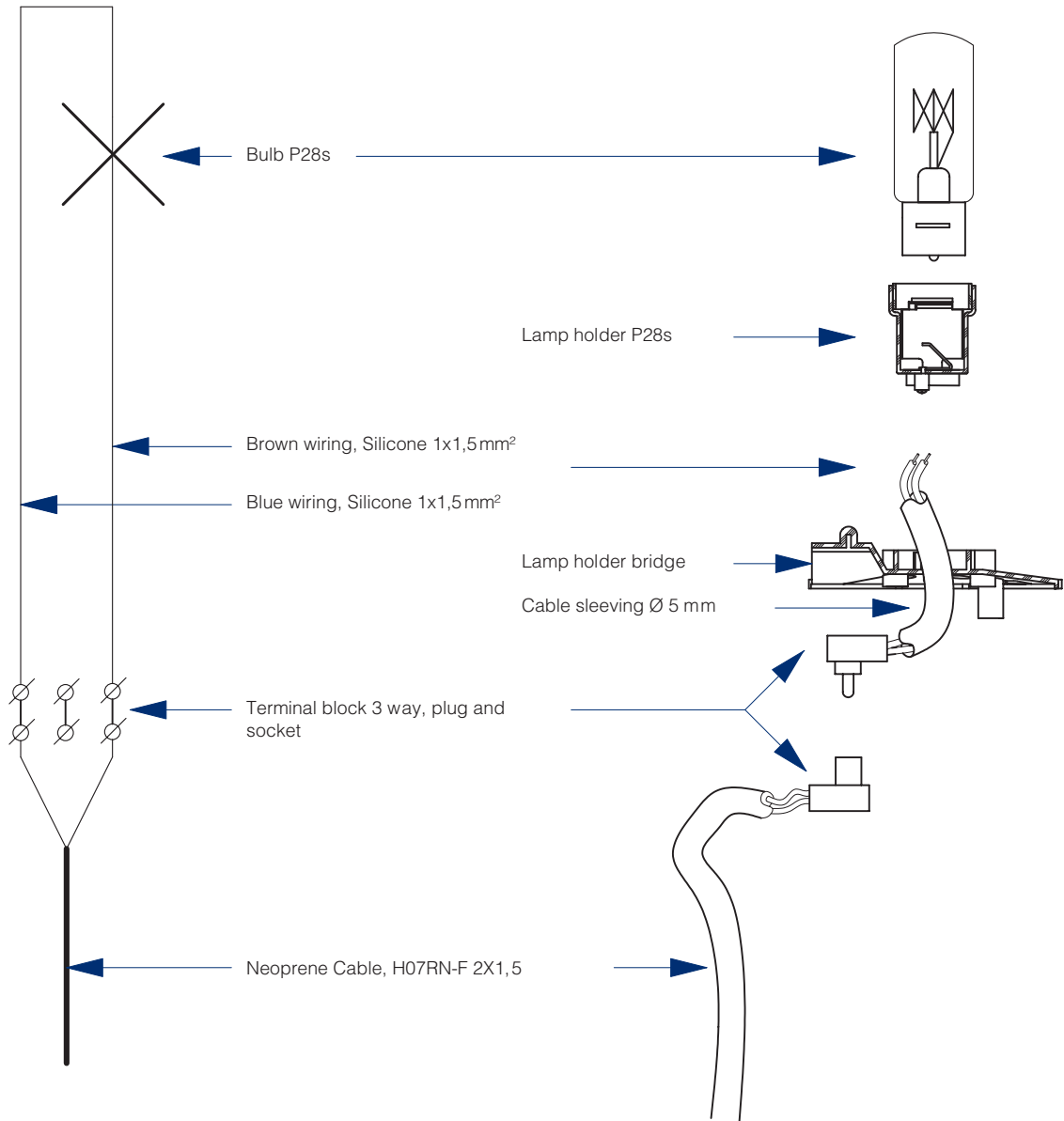
All round light	Min. visibility	Lamp cap	Approval	All-round	180° Screened
White	3 NM	P28s	MED	70.26.00.00	70.26.01.80
Red	3 NM	P28s	MED	70.27.00.00	70.27.01.80
Green	3 NM	P28s	MED	70.28.00.00	70.28.01.80
Yellow	3 NM	P28s	MED	70.29.00.00	70.29.01.80
Red over green	3 NM	P28s	MED	70.17.18.00	-
Green over red	3 NM	P28s	MED	70.18.17.00	-
White over red	3 NM	P28s	MED	70.16.17.00	-
Red over white	3 NM	P28s	MED	70.17.16.00	-

# EXPLODED VIEW





# ELECTRICAL SPECIFICATION



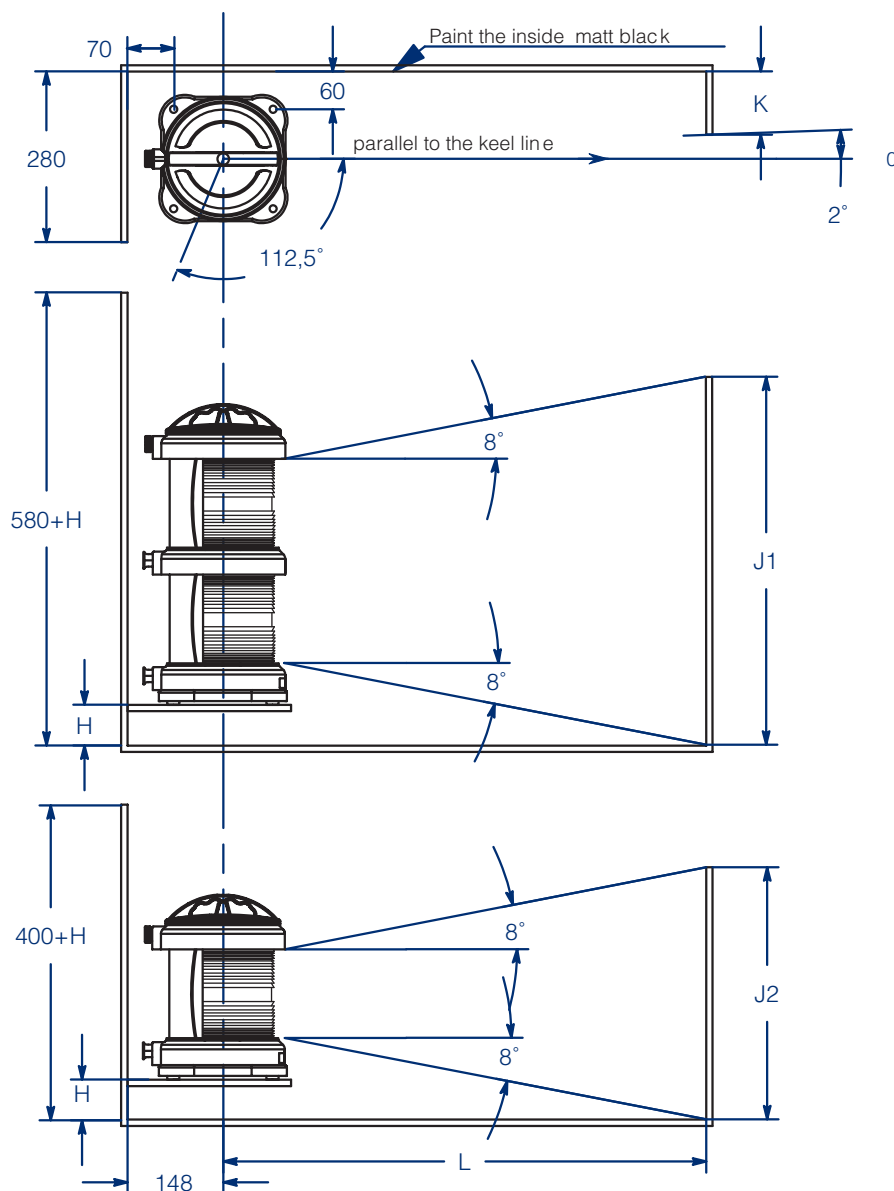


# LIFETIME CONTROL

Measurements of the navigation light and specifications, show a conformity with the minimum requirements of COLREG 72. To guarantee a proper use of the Navigation lights, we as a manufacturer advise the following:

- Use the navigation light in combination with a DHR-specified control system, which monitors the status of the individual navigation light
- Use only an approved normalized bulbs P28s - 60cd
- Each navigation light needs to undergo a quality check at least every 5 years of use to verify it still meets the requirements of COLREG 72

# POSITIONING SIDE LIGHTS



L	H	K	J1	J2
460	0	122	440	260
500	6	121	455	270
600	20	118	480	300
700	34	113	510	330
800	48	109	540	360
910	63	105	570	390

## Disclaimer:

- The minimum luminous intensity requirements in the forward direction are only guaranteed if the side-lights are mounted in accordance with this drawing and table.
- This is an illustration to indicate the dimensions of the inboard screens, relative to the keel line of the vessel. By no means may this image be used to determine the position of the sidelights on the vessel. For positioning the lights at the vessel always check for compliance with COLREG 72 or local rules.

# POSITIONING ALL-ROUND LIGHTS

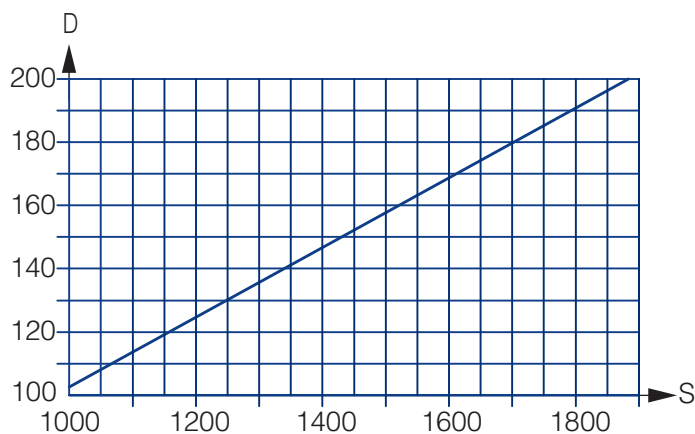
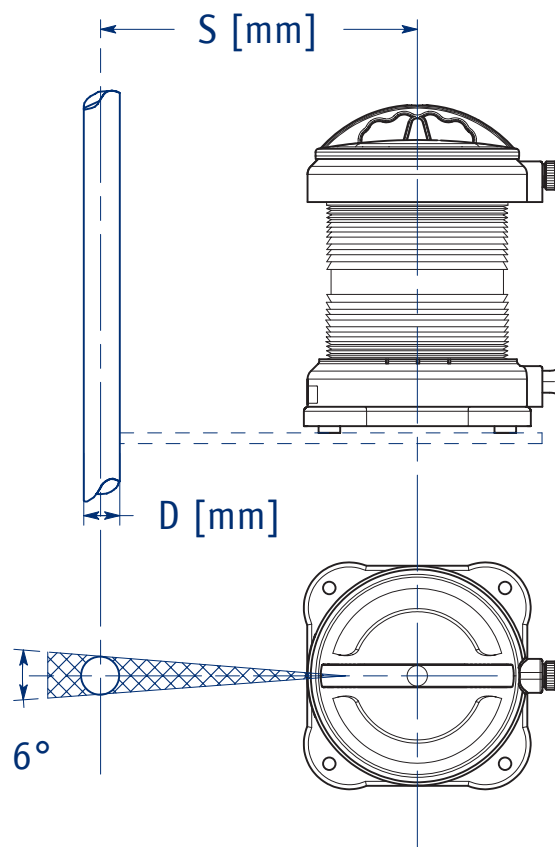
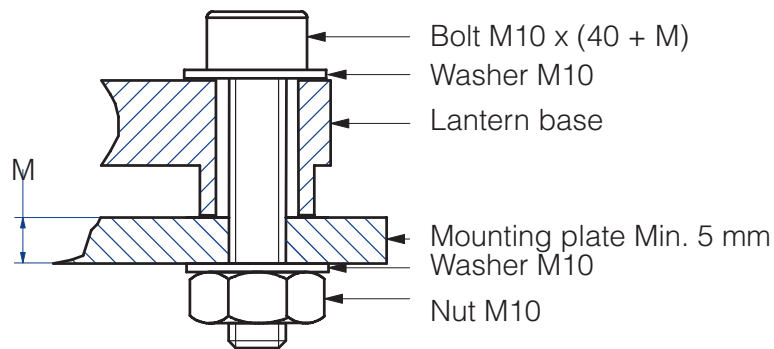


Diagram for choosing the minimum distance between obstacle and mounting plate.

## Disclaimer:

This is an illustration to indicate the position of the all-round light so not to be obscured by mast, topmasts or structures within the angular sector of more than 6 degrees. By no means may this image be used to determine the position of the all-round lights on the vessel. For positioning the lights on the vessel always check for compliance with COLREG 72 or local rules.

# MOUNTING INSTRUCTIONS



All dimensions in mm

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## Mounting plate

The mounting plate for navigation lights should be at least 5 mm thick and should not exceed a parallelism of // 00,5.

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## Fasteners

- The permissible torque should be 8 Nm
- Use only A4-grade stainless steel

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## Important

Do not paint or use any other chemical for the lanterns, clean only with fresh water.

# ADVANCED MARITIME SIGNALLING SOLUTIONS



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