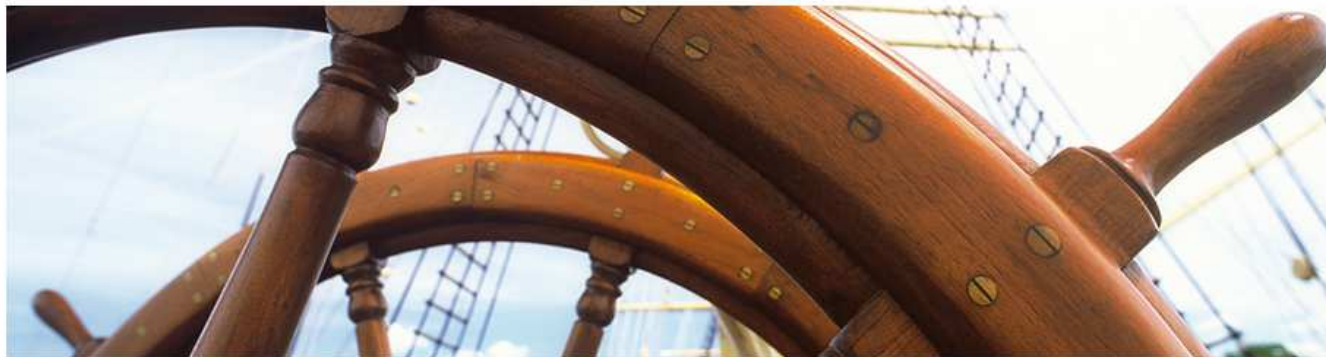




# EU Marine Equipment Directive (MED)



# IACS REQUIREMENT

The Implementation Regulation 2018/773/EU entered into force in **March 2017** after publication in the Official Journal of the EU.

This Regulation put the MED into practice by

- indicating design, construction and performance requirements

And by

- testing standards

for marine equipment.

(In the past this was integrated in the former versions of the MED)

- The IACS requirements via E10 Rev 7 Clean will come into force for installations on 01<sup>st</sup> of January 2022.
- These test requirements are harmonized with IEC 60092-504 “Electrical Installations in Ships - Part 504: Special features - Control and Instrumentation” and IEC 60533 “Electrical and electronic installations in ships – electromagnetic compatibility”.
- Means for ships under European flag this standard is already required latest 01<sup>st</sup> of June 2019, for all other ships classified by one of the member classification societies not under European flag it will be required latest 01<sup>st</sup> of January 2022.

## APPLICABLE TO



MED regulation becomes an international standard for all IACS member classified ships

Members are:

ABS, Bureau Veritas, CCS, CRS, DNV GL, IR Class, Korean Register, Lloyd's, Class NK, Nippon Kaiji Kyokai (NK Class), Polski Register, Rina and Russian Maritime Register.

Nearly all ships over the world are classified under one those classification societies!!!



■ PA X



■ PA

# CERTIFICATES



A 1/3.53 2014/93/EU MED (10th Amendment)	YODALARM YO Series (YA30 AC/DC), YO4 Series 9YA40/YL40 AC/DC), YO5 Series 9YA50/YL50 AC/DC), YO8 Series (YA80/YL80/YA8S/YL8S AC/DC)  R Stahl  <i>Note: This product has been certified under an earlier amendment of the MED with undisclosed validity of the type approval certificate (module B). The validity for the production module (D, E) has expired. Please contact the Notified Body to verify whether or not the product is still in conformity with the MED and marketable.</i>	B+D	Begin: 2015-11-02 End: 2018-09-27  Information on certificates partly incomplete or certificates D, E expired	R Stahl Schaltgerate GmbH  BSI
		BSI/A.1/3.53/590299  BSI/MED/PC/590302		



## EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

**DNV-GL**

Certificate No:  
**MEDB00002BH**  
Revision No:  
**3**

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 Alarm devices - Sounders**

with type designation(s)

**Fire alarm devices - sounders**

Issued to

**Pfannenberg GmbH  
Hamburg, Germany**

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

Regulation (EU) 2018/773,  
item No. MED/3.53, SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000  
HSC Code 7, FSS Code 9, IMO MSC.1/Circ.1242 and IMO MSC.1/Circ.1487

- Regulation 2018/773/EU entered in to force in March 2017.
- Stock of existing units to previous standards could be installed until latest 1 June 2019

## DIFFERENCES

Additional glue for all critical components on the electronical boards  
Additional binder/strap for the Xenon beacon



# MED IS AN OPTION



DNV GL

EC-TYPE EXAMINATION  
CERTIFICATE (MODULE B)

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

This Certificate is valid until 2019-09-07.

Issued at Hamburg on 2018-10-29

DNV GL local station:  
Hamburg

Approval Engineer:  
Didier Girardin

  
Notified Body  
No.: 0098

for DNV GL SE

Sven Dudczus  
Head of Notified Body

Job Id: 344.1-006672-5  
Certificate No: MEDB00002BH  
Revision No: 3

Product description

Type B Sounders intended for outdoor application also more suitable for indoor situations where high temperature and/or humidity are present.  
Provided degree of enclosure protection: IP 66

The alarm device family „PATROL“ consist of acoustical components in different performance classes.

PATROL: Item number: 233 as bb c ddd / Technical Data:


aa Type  
10 PA 1: sounder (100dB)  
11 PA X 1-05: sounder beacon combined device (100dB / 53)  
50 PA S: sounder (105dB)  
51 PA X 5-05: sounder beacon combined device (105dB / 53)  
52 PA X 5-10: sounder beacon combined device (105dB / 103)  
60 PA 10: sounder (110dB)  
61 PA X 10-10: sounder beacon combined device (110dB / 103)  
62 PA X 10-15: sounder beacon combined device (110dB / 153)  
70 PA 20: sounder (120dB)  
71 PA X 20-10: sounder beacon combined device (120dB / 103)  
72 PA X 20-15: sounder beacon combined device (120dB / 153)

bb rated voltage  
10 PA 1 + PA 5 + PA X 1 + PA X 5 + PA X 10 + PA X 20: 230 AC  
15 PA X 10 + PA X 20: 115V AC  
63 PA 1 + PA 5: 24V - 48V DC, PA 10 + PA 20: 24V DC - 48V DC  
64 PA 10 + PA 20: 110V - 240V AC  
70 PA X 1 + PA X 5 + PA X 10 + PA X 20: 48V DC  
80 Option -SSM ; PA X 1 + PA X 5 + PA X 10 + PA X 20: 24V DC

c signal color  
0 none  
1 clear  
2 White  
3 Yellow  
4 orange  
5 red  
6 Green  
7 blue

ddd design GL  
001 housing RAL3000 (red), standard  
038 special tones  
056 housing RAL 7035 (grey)  
057 option -SSM, housing RAL 7035 (grey)  
058 option -SSM  
059 option -SSM, housing RAL 9003 (white)  
060 Housing RAL 9003 (white)

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 (Q, R or P) 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.

Form code: MED 201.DEU

Revision: 2016-12

www.dnvgl.com

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Name Owner/Name Project

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## Product description

Type B Sounders intended for outdoor application also more suitable for indoor situations where high temperature and/or humidity are present.

Provided degree of enclosure protection: IP 66

The alarm device family „PATROL“ consist of acoustical components in different performance classes.

PATROL: Item number **233 aa bb c ddd** / Technical Data:

### aa Type

10 PA 1: sounder (100dB)  
11 PA X 1-05: sounder beacon combined device (100dB / 5J)  
50 PA 5: sounder (105dB)  
51 PA X 5-05: sounder beacon combined device (105dB / 5J)  
52 PA X 5-10: sounder beacon combined device (105dB / 10J)  
60 PA 10: sounder (110dB)  
61 PA X 10-10: sounder beacon combined device (110dB / 10J)  
62 PA X 10-15: sounder beacon combined device (110dB / 15J)  
70 PA 20: sounder (120dB)  
71 PA X 20-10: sounder beacon combined device (120dB / 10J)  
72 PA X 20-15: sounder beacon combined device (120dB / 15J)

### bb rated voltage

10 PA 1 + PA 5 + PA X 1 + PA X 5 + PA X 10 + PA X 20: 230 AC  
15 PA X 10 + PA X 20: 115V AC  
63 PA 1 + PA 5: 24V – 48V DC, PA 10 + PA 20: 24V DC – 48V DC  
64 PA 10 + PA 20: 110V – 240V AC  
70 PA X 1 + PA X 5 + PA X 10 + PA X 20: 48V DC  
80 Option –SSM ; PA X 1 + PA X 5 + PA X 10 + PA X 20: 24V DC

### c signal color

0 none  
1 clear  
2 White  
3 Yellow  
4 orange  
5 red  
6 Green  
7 blue

### ddd design GL

001 housing RAL3000 (red), standard  
038 special tones  
056 housing RAL 7035 (grey)  
057 option -SSM, housing RAL 7035 (grey)  
058 option -SSM  
059 option -SSM, housing RAL 9003 (white)  
060 Housing RAL 9003 (white)

SHARING  
COMPETENCE | 

**Pfannenberg**  
ELECTRO-TECHNOLOGY FOR INDUSTRY



Pfannenberg Group Holding  
Hamburg  
2017