



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书格式号/Form: T01.01-  
HQ000444

# 型式认可证书 CERTIFICATE OF TYPE APPROVAL

证书编号/Certificate No. GB09T00016\_03

兹证明本证书所述制造厂生产的下列产品能够满足下面列明认可标准的要求。

**This is to certify** that the following products produced by the manufacturer stated in the certificate can meet the requirements of the approval standards listed below.

认可产品/ Product Approved

其它仪表

Other Instrument

船用电表

制造厂/ Manufacturer

DEIF A/S

DEIF A/S

Frisenborgvej 33, 7800 Skive, Denmark

Frisenborgvej 33, 7800 Skive, Denmark

认可标准/ Approval Standard

CCS RULES FOR CLASSIFICATION OF SEA-GOING STEEL SHIPS (2006), chapter 1

IACS UR E10

EN 60051, IEC51 Etc.

证书有效期至/ **This Certificate is valid until** 2013年5月24日 / May. 24, 2013

发证机构

中国船级社哥德堡办事处 C2 04

签发日期

2009年5月25日

Issued by

CCS Gothenburg Office

Date

May. 25, 2009

本证书根据中国船级社《钢质海船入级规范》及有关程序规定签发。关于证书的有关规定见本证书背面的说明。当本证书包括多页纸张时，则所有证书页为一个整体，必须同时使用。每一页证书均须由本社盖章方为有效。证书复印件无效。任何单位和个人均不应摘录或节选本证书的部分内容。本认可证书不代表本社对个体产品质量的检验。有关各方对所持证书的真实性有疑问时，可以向本社检验机构咨询。

This Certificate is issued pursuant to the Rules for Classification of Sea-going Steel Ships and related procedures of the Society. Refer to the back of the certificate for detailed requirements of the certificate. When the certificate consists of more than one page, all pages of the certificate are taken as a whole and are used simultaneously. No certificate page is valid without bearing the stamp of the Society and no copied form of the certificate is regarded as valid. Any part of the certificate is not to be extracted or abridged by any unit or individual in any form. This approval certificate does not constitute the inspection of the Society about the quality of the unit/batch product. Related parties who are doubted about the authenticity of the certificate may inquire of the Society or its offices.



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GB18712667

No. 07367969

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**产品明细/ Product Description**

船用电表

产品型号/Type

: see attached pages for detail

**批准的图纸和设计计算书/ Approved Drawings and Design Calculations**

图纸批准号/ Drawings Approval No. : HBT04292040

**产品认可试验报告/ Approval Test Report**

试验报告编号/Test Report No. : Refer to attached pages

试验报告日期/Test Report Date : 2004-04-01

试验单位/ Laboratory : Deif A/S

试验单位地址/ Test Address : Denmark

**产品适用范围/ Application of the Product**

适用与船用仪表板及航行设备

To be intend for switchboard and navigation instruments.

**认可保持条件/ Maintenance Requirements of Approval**

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。

After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.

2. 工厂的专业质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The professional quality management system of the factory shall be ensure effective operation, and shall be the same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

**认可后的产品检验方式/ Method of Product Inspection after Approval**

按照规范只认可不进行产品检验的产品/The product approved only in term of the rules:

认可后的产品检验由制造厂按本社批准的产品检验计划进行检验, 经检验合格后由制造厂签发合格证明, 并连同该产品的本社认可证书复印件一并交付用户, 制造厂对产品符合公约、法规、本社规范和本社认可的标准规定负责。

After approval, product inspection should be carried out by the Manufacturer in accordance with the product inspection scheme approved by the Society. Upon satisfactory inspection, and the Quality Certificate issued by the Manufacturer should be provided to the purchaser together with the copy of the approval certificate issued by the Society. The manufacturer should take responsibility for the product being in compliance with the convention, statutory regulation, the Society rules and the standard accepted by the Society.

**对于原材料和零部件的检验要求/ Inspection Requirements for Materials and Components**

nil

**责任声明/ Statement of Responsibility**

本社的认可不影响、替代与本社授权或检验无关的各方对上述工厂的认可和发证, 并且不对与本社授权或检验无关的各方负责, 不承担其未经应允而承认、接受本社认可所导致的法律和经济责任。

The approval of the Society does not affect and replace any approval and certification of the manufacturer by any parties that bear no relation with this Society's authorization or survey and





therefore takes no responsibility for these parties. The Society does not undertake any legal and economic liabilities arising from accepting this Society's certificate without prior permission from this Society.

其他/Others

本证书由原HBT04292040证书换证  
This certificate is issued based on previous certificate No. HBT04292040

中国船级社哥德堡办事处

CCS Gothenburg Office

\*\*\*\*\*本证书正文完/ End of Text\*\*\*\*\*

注：本证书含有附页，共2页

Note: The certificate is attached with 2 additional page(s)





**Production description:****Switchboard instruments with illumination**

Moving coil indication instruments with illumination for flush mounting.

**80° Type:**

LQ96-ph-NB, DLQ144-ph-NB, DLQ96-ps-NB, DLQ144-ps-NB (with white scale)  
DLQ96-ph-NY, DLQ144-ph-NY, DLQ96-ps-NY, DLQ144-ps-NY (with black scale)

**90° Type:**

DLQ96-pv-NB (with white scale)

DLQ96-pv-NY (with black scale)

**240° Type:**

DLQ72-pc-NB, DLQ96-pc-NB, DLQ144-pc-NB, DLQ192-pc-NB (with white scale)

DLQ72-pc-PY, DLQ96-pc-PY, DLQ144-pc-PY, DLQ192-pc-PY (with black scale)

DLQ72-pc-PW, DLQ96-pc-PW, DLQ144-pc-PW, DLQ192-pc-PW (with black scale)

Measuring rang	Voltage	Current
Lowest range	0~1V	0mA~1mA, -0,5~0~0,5mA
	-0,5~0~0,5V	
Highest range	0~100V	0~100mA
	-100~0~100V	-100~0~100 mA
Load	0,5kΩ/V	0,6V/0,3V
	1,0kΩ/V	

**Technical Specification:**

- ✧ Accuracy: Class 1.5 to EN 60051 and IEC 51
- ✧ Protection: Housing IP52; Terminals IP20
- ✧ Illumination: 24V AC/DC. Adjustment range: 7-30V.
- ✧ Built-in potentiometer. Adjustment range  $\pm 10\%$  (Up to  $\pm 50\%$ )  
(except ranges: 0-1mA, -0.5-0-0.5mA and 4~20mA DC)

**Documents:**

Data sheet: 4921250014F

**Production description:****Watertight marine instrument with illumination**

240° Moving coil indication instruments with illumination for flush mounting.

type	DLQW72, DLQW 96
Voltage	0~1V DC to 0~100V DC or $\pm 0,5 \sim \pm 100$ V DC
Current	0~1mA DC to 0~100mA DC or $\pm 0,5$ mA DC $\sim \pm 100$ mA DC Or 4~20 mA DC

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**Technical Specification:**

- ✧ Accuracy: Class 1.5 to EN 60051 and IEC 51
- ✧ Protection: Front IP66, Terminals IP20
- ✧ Illumination: 24V AC/DC. Adjustment range: 7-30V.
- ✧ Built-in potentiometer. Adjustment range 5-30V or 7-30V (except ranges: 0-1mA)

**Documents:**

Data sheet: 4921250050D

**Production description:****Waterproof marine instrument with illumination**

240° moving coil system in a waterproof housing.

type	VTR-3, VTR-5	
Measuring range	Voltage	Current
Lowest range	0~1V DC	0...1mA DC
	-0,5~0~0,5V DC	-1...0...1mA DC
	0~10V AC	0...1mA AC
Highest range	0~300V DC	0...100mA DC
	-300~0~300V DC	-100...0...100mA DC
	0~300V AC	0...100mA AC
Load	0.5kΩ/V	0.6V
	1 kΩ /V	0.3V
	0.45 kΩ /V	1.4V

**Technical Specification:**

- ✧ Accuracy: Class 1.5 to EN 60051 and IEC 51
- ✧ Illumination: LED illumination with built-in dimmer.
- ✧ Protection: IP66, to EN 60529 and IEC 529.
- ✧ Aux. voltage (Illumination): 24V AC/DC ±25%.

**Documents:**

Data sheet: 4921250005D

