

**DNV**

# DET NORSKE VERITAS

## EC TYPE-EXAMINATION CERTIFICATE

*Application of:* Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive 2002/75/EC, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This certificate is issued by Det Norske Veritas under the authority of the Government of the Kingdom of Norway.

**CERTIFICATE NO. MED-B-4159**

This Certificate consists of 3 pages

*This is to certify that the product*  
**Position indicating lights for lifejackets**

*with the type designation(s)*

**LDX**

*Manufactured by*

**Electric Fuel Ltd.**  
BEIT SHEMESH, Israel

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

Annex A.1, item No. A.1/1.2c and Annex B, Module B in the Directive. SOLAS 74 as amended, Regulation III/4, III/7.1.3, III/22.1.2, III/22.3.1, III/32.1, III/32.2, III/34 & X/3, LSA Code, 2000 HSC Code 8.1, 8.3 & 8.10, and IMO MSC/Circ 885.

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

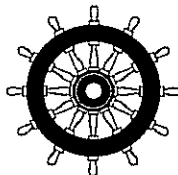
*Place and date*

Høvik, 2007-05-03

for DET NORSKE VERITAS AS

*This Certificate is valid until*

2012-06-30



*[Signature]*

Kristen Ulveseter

Manager, MTPNO370

Department Systems & Components

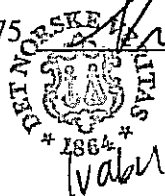
Notified Body No. 0575

*[Signature]*

Nicolay Horn

Surveyor

*DNV local office:*  
DNV MTP



*Notice: The certificate is subject to terms and conditions overleaf. Any significant changes in design or construction of the product, or amendments to the Directive or Standards referenced above may render this certificate invalid. The product liability rests with the manufacturer or his representative in accordance with Council Directive 96/98/EC, as amended.*

*The Mark of Conformity may only be affixed to the product and a Declaration of Conformity may only be issued when the production/product assessment module referred to in the council directive, is fully complied with.*

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: MED-B-4159  
Job Id.: 344.1-000624  
File No.: A1/1.2C

## Product description

Position-indicating lights for life jackets type LDX that is activated automatically when immersed in water. The LDX consists of a battery and light encased in either one plastic housing (LDX-I), or a battery assembly and a separate light assembly, connected by an electrical wire (LDX-II), or a battery and light encased in one plastic housing and an additional water sensor, connected by an electrical wire (LDX-III).

<b>Technical data:</b>	
Weight:	50 g
Battery:	Lithium battery 2 x 3V (CR 123A)
Lamp:	LED
Lense:	Frosted or Clear

Dimensions	LDX-I	LDX-II	LDX-III
Height:	59,0 mm	59,0 mm	59,0 mm
Width:	38,0 mm	38,0 mm	38,0 mm
Depth:	39,0 mm	39,0 mm	39,0 mm
Separate lamp unit (LDX-II):			
Height:	-	21,0 mm	-
Diameter:	-	13,0 mm	-

## Applications/Limitations

The LDX is activated automatically following immersion of the water sensor in fresh water or seawater.

Instructions from maker given in the LDX marine lifejacket light instruction manual to be followed.

## Type Approval documentation

LDX technical constructions file no. PL 102 500, rev. B dated 2007-01-17  
Imanna test report no. 17479-1, dated 2007-01-30  
Imanna test report no. 17479-2, dated 2006-12-13  
Imanna test report no. 17479-3, dated 2006-12-13  
Imanna test report no. 17479-4, dated 2006-12-13

## Tests carried out

Tested in accordance with the requirements of IMO Resolution MSC.81 (70):






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Temperature cycling-, luminous intensity-, mould growth-, corrosion and seawater resistance-, solar radiation-, oil-resistance-, rain and water tightness-, fire-, chromaticity & drop- tests.

### Marking of product

The product is to be marked with manufacturers name, type designation, date of manufacture, date of expire and Mark of Conformity. The expiring date shall be marked in accordance with the LSA Code, item 1.2.3 as amended by IMO Res. MSC 48(66).

### Mark of conformity

The manufacturer is allowed to affix the Mark of Conformity  according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

- Module D: The quality system for production and testing shall be approved by the Notified Body.
- Module E: The quality system for inspection and testing shall be approved by the Notified Body.
- Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a Certificate of Conformity.

END OF CERTIFICATE

