



# DET NORSKE VERITAS

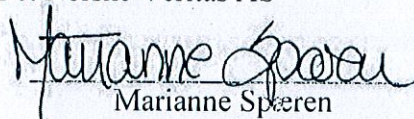
## EC-TYPE EXAMINATION CERTIFICATE

- [2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 94/9/EC
- [3] EC-Type Examination Certificate Number: **DNV 11 ATEX 06160X**
- [4] Equipment or Protective System: **BDD91-400 Explosion-proof light fitting**
- [5] Applicant – Manufacturer or Authorized representative: **Warom Technology Incorporated Company**
- [6] Address: **No.555, BAOQIAN ROAD, JIADING DISTRICT, SHANGHAI, CHINA**
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] DNV, notified body number 0575 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential reports listed in section 14.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: **EN 60079-0: 2009, EN 60079-1: 2007, EN 60079-31:2009**
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protected system. If applicable, further requirements of this Directive apply to the manufacturer and supply of this equipment or protective system.
- [12] The marking of the equipment or protective system shall include the following:



**II 2 GD Ex d IIC T3 Gb, Ex t III C T190°C Db IP66**

Høvik, 2012-02-24  
for Det Norske Veritas AS

  
Marianne Spæren  
Certification Manager



Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.

The digitally signed and electronically distributed document is the original and valid certificate. Ref.: [www.dnv.com/digitalsignatures](http://www.dnv.com/digitalsignatures)

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 300.000. 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.





[13]

## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE No.: DNV 11 ATEX 06160X

### Certificate History

Revision	Description	Report no.	Issue date
-	Original certificate	2012-3009	2012-02-24

[15] Description of Equipment or Protective System

BDD91-400 explosion-proof light fittings are of type "d" and type "t". The enclosure material is aluminium alloy .The material of light transmitting part is toughened glass. The enclosure is comprised of a light source compartment and ballast compartment. A lamp holder, a reflector and a bulb are installed in the light source compartment. These two compartments are divided by heat-proof rim. The entry hole (M25x1.5 or NPT3/4") is blocked by a plug.

### Type Identification

BDD91 - 400 - ☐ ☐ ☐

Mounting Type

Bracket Type

Pole Type

Lamp wattage (W): HIE: 400W

HME: 400W

HSE: 400W

Lamp

HIE: metal halide lamp

HME: High Pressure mercury lamp

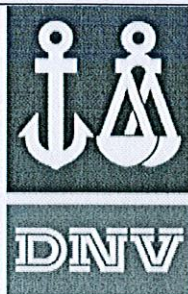
HSE: High pressure sodium lamp

400:Enclosure Type

Explosion proof Light Fittings

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 300.000. 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.





EC-TYPE EXAMINATION CERTIFICATE No.: DNV 11 ATEX 06160X

#### Electrical Data

Rated Voltage :220V~240V 50/60Hz

Light Source and power:

- Metal halide lamp: 400W
- High pressure mercury lamp: 400W
- High pressure sodium lamp: 400W

Degrees of protection (IP Code)

IP 66

Ambient temperatures

-60°C ≤ Ta ≤ +55°C

[16] Project No.: PRJC-307404-2011-PRC-CHN

#### Descriptive Documents

Number	Title	Rev.	Date
1HRW 000 032	BDD91-400 explosion proof light fittings	1.0	2011.04.08
4HRW 110 088	Nameplate	1.0	2011.04.08
1HRW 020 036	Enclosure	1.0	2011.04.08
1HRW 050 017	Enclosure ring	1.0	2011.04.08
1HRW 050 018	Heat-proof rim	1.0	2011.04.08
1HRW 050 019	Clamping ring	1.0	2011.04.08
1HRW 050 020	Overhauling Cover	1.0	2011.04.08
1HRW 090 129	Guard	1.0	2011.04.08
1HRW 090 005	Leading sheath	1.0	2011.04.08
1HRW 100 052	Glass cover	1.0	2011.04.08
1HRW 100 057	Gasket	1.0	2011.04.08
1HRW 100 058	Sealing ring	1.0	2011.04.08
1HRW 100 059	Sealing ring	1.0	2011.04.08
4HRW 110 025	Lamp holder	1.0	2011.04.08
WM5HR 512 029	Assembly of wiring base	1.0	2011.04.08
WM5HR 906 004	Assembly of wiring screw	1.0	2011.04.08
WM8HR 178 019.2	Plug	1.0	2011.04.08
WM8HR 903 207	Screw	1.0	2011.04.08
WM8HR 950 224	Tile gasket	1.0	2011.04.08

#### Routine tests

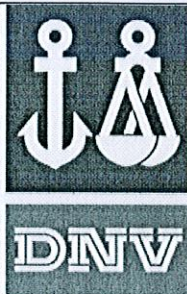
Each enclosure must be subjected for routine pressure testing according to clause 16 of EN/IEC 60079-1, with the following pressures:

Light source compartment: 2MPa

Ballast compartment: 2MPa

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 300.000. 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.





EC-TYPE EXAMINATION CERTIFICATE No.: DNV 11 ATEX 06160X

**[17] Special Conditions for Safe Use**

Repairs of the flameproof joints must be made in compliance with the structural specifications provided by the manufacturer. Repairs must not be made on the basis of values specified in tables 1 and 2 of EN/IEC 60079-1.

**[18] Essential Health and Safety Requirements**

See part 9 of this certificate

END OF CERTIFICATE

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 300.000. 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.