

User Manuel

Explosion-Proof Work LED Light Ultra 1



II 2 G Ex ib IIC T4 Gb mb
II 2 D Ex ib mb IIIC T135 ° C Db

EU Type Examination Certificate No. KIWA 16ATEX0026 X



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1. Safety Instructions

The Ultra 1 LED work light is an explosion-proof product suitable for use in hazardous areas with potentially explosive conditions classified as Zone 1, Zone 2, Zone 21 or Zone 22 due to flammable gases, vapors, mists or dusts.

Read and make sure you understand these instructions for a safe use of this light. Please take all warnings into account and follow the instructions.

- Installation should only be performed by a personnel trained and qualified in explosion protection, in particularly the labels on the device, the instructions provided in this manual and the installation regulations applicable locally.
- Connect the device to the power supply for which it is adapted.
- Before connecting the work light to a terminal box make sure the terminal box is disconnected from the power supply first to prevent sparks.
- Do not use the work light when it is out of service or when the lamp or the cable is damaged.
- When in operation, make sure national safety regulations are observed.
- Use the work light only under the specified environment's conditions. Deviating from such environment's conditions can damage the device.
- Use the work light not outside the temperature range defined for the area.
- Follow all usage instructions on the product and listed in this manual.
- Repairs may only be performed by the manufacturer or by a designated person.
- Modification of the device, or changes of its design are not allowed.
- The product is exclusively intended to be used for the function for which it is designed and needs to be maintained in a good and clean condition.

Upon failure to observe the above instructions, the explosion safety of the device can no longer be guaranteed. The device could become a threat to the life of the user and could trigger the ignition of an explosive atmosphere.

2. Description

The explosion-proof Ultra 1 LED work lamp is designed to provide the user with a safe and quality lighting in the working environment.

This fully static work lamp consists of a sturdy plastic case, with at its front an impact-resistant clear polycarbonate cover in which the LED light source is located. The three rows of LEDs are each provided with a diffuser, allowing a uniformly distributed light output.

Protection against explosion is guaranteed thanks to the intrinsic type of safety and protection of the LED circuit, including its case and electronics control.

The operating voltage of the lamp is 24-48 V AC/DC. The lamp is provided with a factory molded cable. The standard cable length is 10 meters. It can on demand be supplied with a 30 m length.

3. Characteristics

The features of the Ultra 1 LED work light are:

- More robust and with elegant design
- Used with a molded cable
- Made with antistatic plastic
- Equipped with an anti-static protective film
- Made according to the ATEX European Directives including explosion-related protective instructions
- Suitable for use in the classified potentially explosive zones 1 & 2 and 21 & 22 due to gas, fibers and dust
- Explosion category: ATEX II 2GD, protection type Ex ib IIC T mb 4Gb gas and Ex ib mb IIIC T135 ° C Db dust
- IP 65 : against water and dust
- Suitable for indoor and outdoor use
- Assembly/use in all positions possible

4. CE Marking

The Ultra 1 LED work lamp complies with the European EMC and ATEX directives and implicitly to the Low Voltage Directive.

Regarding explosion protection, the work lamp is designed and manufactured in compliance with the essential safety requirements of the ATEX Directive 2014/34/EU on Group II Category 2GD. For further information on the essential requirements of the European harmonized Directive and applied construction standards, see the listings in paragraph (6) Specifications and in the back cover of this manual - EU Declaration of Conformity.

5. Application

The explosion-proof Ultra 1 LED work lamp is designed and suitable for use in classified areas with explosion hazard caused by flammable gases, vapors, mist and dust. Because this explosion-proof work light is certified according to Group II, Category 2 GD of the ATEX Directive, it is suitable for use in the following zone types of hazardous areas:

- Relating to flammable gases, vapors and mists: Zone 1 and Zone 2
- With regard to combustible dust: Zone 21 and Zone 22.

The used parts are all made of corrosion-resistant material so that good resistance is offered to the influences of the most common chemicals.

6. Technical data

Conformity: 2014/34 / EU (ATEX) and 2014/30 / EU (EMC)

Explosion safety category: II 2GD

Type of protection: Ex ib IIC T4 Gb mb

Ex ib mb IIIC T135 ° C Db

Applied standards: EN 60079-0: 2012, EN 60079-11: 2012 and EN 60079-18: 2015

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Ambient temperature: -20 ° C to +50 ° C

Seal against moisture and dust: IP 65 to EN 60529

Case material: Plastic, impact resistant, antistatic

Glass material: Polycarbonate, impact resistant, antistatic

Light source: LED (81x)

Operational Mode: As wished (360°)

Operating time: Continuous

Use locations: Outdoor and indoor installation

Power supply: 24-48 V AC / DC, minus 35 watts.

Connection: Integral cable, 2 x 2.5 mm², 10 or 30 meters

Earth Connection: Not required

Weight: 4.3 Kg (including 10 m cable)

7. Marking and Warnings

The Ultra 1 LED work light is equipped with the label shown below:



nec+

II 2 G Ex ib mb IIC T4 Gb

-20 °C < Ta < +50 °C

II 2 D Ex ib mb IIIC T135°C Db

U_i: 24 - 48 V AC/DC

KIWA 16ATEX0026 X

U_m: 125 V

LED work light type: Ultra 1

Serial No. xxxx-yyyy

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xxxx is the year of production, yyyy is the series or serial number

The X mark indicates that the cable must be connected to a suitable explosion proof enclosure or suitable explosion-proof connector. Follow the installation standard EN 60079-14, in particular the demand for mobile and portable equipment.

8. Installation and connection instructions

- Installation of explosion proof equipment must be carried out by especially instructed and qualified personnel with the relevant EN 60079-14 provisions of installation.
- Install and use of this product with the relevant safety rules and the generally acknowledged latest directives. Please follow also the national regulations and legislation relating to the electrical connection.
- The Ultra 1 led work lamp case is made of electrically conductive material which prevents the case to be electrostatically charged by friction (cleaning). The lamp contains no user-accessible metal parts which need a connection with earth.
- The Ultra 1 LED work light is not protected against lightning. The cable must therefore be protected by lightning.
- The Ultra 1 LED work lamp is suitable for use in areas EPL Gb (zone 1) gas group IIC or EPL Db (zone 21) substance group require IIIC. The temperature class for gas is limited to T4 and dust for up to 135°C.
- Select an installation/use location with an ambient temperature of -20° to +50°C. Do not cover the Ultra 1 LED work light, to prevent heating up above the design limits.

Note: The LEDs' power is electronically reduced as soon as the internal temperature rises above 80°C and at 85°C, and the lamp is completely switched off in order to protect the electronic circuits. If this happens, put the device in a ventilated environment with a lower temperature.

- The Ultra 1 LED work light can be connected to a supply voltage of 24-48 V AC / DC and with a minimum power of 35 watts.
- Turn off the power supply prior to installation.

- Use the cable end in the explosion proof terminal box or connector in accordance with good engineering practice. Make sure, that the terminal box or connector is suitable for the environment to which it applies.
- The fixed cable must be connected to a suitable explosion-proof terminal box or connector. Follow the EN 60079-14 installation standard, in particular the requirements for mobile and portable equipment.

9. Opening the case

The case contains no parts that are of interest to operation, maintenance or inspection and will never be opened by the user.

10. Inspection and maintenance

For the maintenance of the work lamp, the requirements as set out in EN 60079-17 apply.

If the work light or the connection is no longer in good condition or damaged, it must be repaired immediately. If the work light is heavily contaminated it must be cleaned. In case of repair, the power of the work light must be switched off and restored only after approval of the repair.

The required maintenance interval depends on the use and should, therefore, be adapted to its use by the user. As a general guideline, a 12-month interval maintenance is recommended.

11. Repair

Repair of the Ultra 1 LED work light can only be performed using original parts. The use of other parts can lead to injury to persons and installations.

Repairs may only be performed by qualified technicians, trained according to EN 60079-19.

Using non-original parts or repairing the device via non-expert personnel causes the explosion protection guarantee to be lost. It is advisable to return the work light for repair to the manufacturer or its representative.

12. Disposal/reuse

The device may be incorporated in its completeness as electronic waste. When processing or recycling the product and its packaging, national environment laws and regulations must be observed.

Changes in this manual can be made without notice.



EU Declaration of Conformity

We

Necplus B.V.
Emopad 38, 5663 PB Geldrop, The Netherlands

herewith declare that the
explosion-safe led worklight

ULTRA 1

with a supply voltage of

24 – 48 V AC/DC

CE 0344 Ex

II 2 G Ex ib mb IIC T4 Gb
II 2 D Ex ib mb IIC T135°C Db

covered by EU-type Examination Certificate No. KIWA 16ATEX0026 X, issued by Kiwa Nederland B.V., unit Kiwa ExVision, Wilmersdorf 50, 7327 AC Apeldoorn, The Netherlands and produced under Product Quality Assurance Notification DEKRA 16ATEXQ0100, issued by Dekra Certification B.V., Notified Body identification No. 0344, Meander 1051, 6825 MJ Arnhem, The Netherlands,

is in conformity with the relevant Union harmonization legislation, including the latest amendments and with national legislation implementing this directive:

2014/30/EU
Concerning electromagnetic Compatibility

2014/34/EU
Concerning equipment and protective systems intended
for use in potentially explosive atmospheres

and that the following harmonized standards regarding explosion safety have been applied:

EN 60079-0:2012 EN 60079-11:2012 EN 60079-18:2015

This declaration of conformity is issued under the sole responsibility of the manufacturer

Geldrop, 11 November 2016
Place and date

Signed for an on behalf of

M. Moolenaar
Managing Director and EX Authorized Person