

[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use
in Potentially Explosive Atmospheres
Directive 2014/34/EU.

[3] EU-Type Examination Certificate Number: Nemko 24ATEX1001X Issue 1

[4] Product: Intrinsically Safe LED Light
Types 1220* and 1230*

[5] Manufacturer: Nautitech Mining Systems Pty. Ltd.

[6] Address: Unit 3, 9 Packard Avenue
Castle Hill, NSW 2154
Australia

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] Nemko Group AS, notified body number 0470, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential report no.

REP035145

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018, EN 60079-11:2012

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] This EU-Type Examination Certificate relates only to the technical design and construction of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate

[12] The marking of the product shall include the following:



I M1
II 1GD

Ex ia I Ma

Ex ia IIB T4 Ga

Ex ia IIIB T135°C Da

Ta : -20°C to +60°C

2024-04-04



Asgeir Holt
ATEX Manager

[13] Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE No** **Nemko 24ATEX1001X** **Issue 1**

[15] **Description of Product:**

The intrinsically safe Light Types 12200, 12201, 12300, 12301, 12302, 12303, 12304 and 12305 are light fittings suitable for use in all zones including Zone 0 Group I, Group IIB and Group IIIB.

All Types 1220X and 1230X series are identical in every aspect except for the type of LED used, where the Type 1220X series do not use the XPLBWT-00-000-000BV650E LED and the CREE XP-L2 series with colour temperature 5000 or lower, whereas the Type 1230X series may use one or more of such LEDs. The last digit of both series defines the type of connection facility being used. All five Types contain three LED circuits each powering two LEDs.

The circuits can be switched individually or together. The equipment can be fixed, portable or handheld supplied from an intrinsically safe source.

The electronics are housed in a fully encapsulated metal enclosure which is fitted with a lens at its front, that is protected by a fixed and retained metal guard.

Type Designations:

Types 1220* and 1230*

Electrical Data:

Types 1220*: $U_i = 20V$

Types 1230*: $U_i = 20V, I_i = 3.2A$

Degrees of protection (IP Code):

IP65

Ambient temperature:

-20°C to +60°C

Routine tests:

N/A

[16] **Report No. REP035145**

Descriptive Documents:

Number	Title	Rev	Date
Part# 7614 – 1.0 LED Lights SCHEMATIC (Sheet 1 of 5)	1234-16-9	1	2015-05-29
Part# DS_FV-1.0 IS BARRIER SCHEMATIC (Sheet 2 of 5)	1234-16-9	1	2014-09-01
Part# DS_HU-1.0 IS BARRIER SCHEMATIC (Sheet 3 of 5)	1234-16-9	1	2015-03-03
Part# 7614 –1.0 Timer Block SCHEMATIC (Sheet 4 of 5)	1234-16-9	1	2015-03-03
Part# 7614 – 1.0 LED Controller SCHEMATIC (Sheet 5 of 5)	1234-16-9	1	2015-03-03
IS LIGHT ASSEMBLY – CERTIFICATION DETAIL	CD_1220X-1230X	4	2022-01-27
IS – LED LIGHT ASSEMBLY – DATA SHEET	DS_1220X-1230X	6	2024-03-11
Part# 7614 LED Lights Top Layer PCB Artwork (Sheet 1 of 8)	1234-16-10	1	2015-05-25
Part# 7614 LED Lights Mid-Layer 1 PCB Artwork (Sheet 2 of 8)	1234-16-10	1	2015-05-25
Part# 7614 LED Lights Mid-Layer 2 PCB Artwork (Sheet 3 of 8)	1234-16-10	1	2015-05-25

Part# 7614 LED Lights Bottom Layer PCB Artwork (Sheet 4 of 8)	1234-16-10	1	2015-05-25
Part# 7614 LED Lights Top Silkscreen Overlay PCB Artwork (Sheet 5 of 8)	1234-16-10	1	2015-05-25
Part# 7614 LED Lights Bottom Silkscreen Overlay PCB Artwork (Sheet 6 of 8)	1234-16-10	1	2015-05-25
Part# 7614 LED Lights Top Solder Mask Print PCB Artwork (Sheet 7 of 8)	1234-16-10	1	2015-05-25
Part# 7614 LED Lights Bottom Solder Mask Print PCB Artwork (Sheet 8 of 8)	1234-16-10	1	2015-05-25
List of LEDs used in Nautitech 12200(CX200) and 12300(CX300) IS lights	MS0074	1	2019-09-11

Certificate History and Associated Reports:

Issue	Date	Report No.	Description
0	2024-02-22	REP028733	Prime Certificate released
1	2024-04-04	REP035145	Increase of allowable pressure for mining

[17] Specific Conditions of Use:

- The equipment must be supplied from a single intrinsically safe power source.
- The following input parameters are to be taken into account during the installation of the Intrinsically Safe LED Light Type 1220*:

Connector P1 (Pin 1, 2 & 3:Power/Pin 4:Ground) for 12200 and (Pin 1, 2 & 5:Power/Pin 4:Ground) for 12201	
Maximum Input Voltage U_i	20 V
Maximum Input Capacitance C_i	Negligible
Maximum Input Inductance L_i	Negligible

- The following input parameters are to be taken into account during the installation of the Intrinsically Safe LED Light Type 1230*:

Connector P1 (Pin 1, 2 & 3:Power/Pin 4:Ground) for 12300, 12303, and 12305; (Pin 1, 2 & 5:Power/Pin 4:Ground) for 12301 and 12304 and (red, white & blue: Power/Black: GND for 12302	
Maximum Input Voltage U_i	20 V
Maximum Input Current I_i	3.2 A
Maximum Input Capacitance C_i	Negligible
Maximum Input Inductance L_i	Negligible

Notes:

- The equipment has not been evaluated for use in oxygen enriched atmospheres.
- The equipment has been evaluated for use in pressures up to 1.3 bar for mining (M1) applications.

[18] Essential Health and Safety Requirements:

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9

[19] Remarks and additional Information:

None