Type Examination Certificate CML 20ATEX3019X Issue 0

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **LifEx-MN series of linear lighting fixtures**

3 Manufacturer **Cortem S.p.A.**

4 Address **Via Aquileia 10**
34070 Villesse
(GO)
Italy

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 6738671, Hoogoorddreef 15, Amsterdam, 1101 BA, The Netherlands, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU.

The examination and test results are recorded in the confidential reports listed in Section 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Annex VIII apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-7:2015

10 The equipment shall be marked with the following:

II 3 G

Ex ec IIC T... Gc

Ta=* see annex

A C Smith
Technical Operations Director

11 Description

LifEx-MN

The LifEx-MN linear LED lighting fixture has an Equipment Protection Level of EPL Gc and Db and utilises types of protection increased safety (ec) and dust protection by enclosure (tb).

It is constructed from an aluminium enclosure, with polycarbonate diffuser and/or with optional glass or polycarbonate lens.

Design Options

Every configuration is available in lengths ranging from 300 mm to 1500 mm, and power ratings up to a maximum of 105W of nominal power.

The LifEx can be used in only normal service, in only emergency service or in normal and emergency service.

The minimum ambient temperature for the range is:

- -60°C for versions without battery
- -20°C for versions with battery

The range is available with the following maximum ambient temperatures:

	With glass lens and with/without polycarbonate diffuser	With Polycarbonate lens and with/without polycarbonate diffuser	Without lens polycarbonate diffuser only
LIFEx-M...0310	+60°C	+60°C	+60°C
LIFEx-M...0315	+60°C	+60°C	+60°C
LIFEx-M...0615	+60°C	+60°C	+60°C
LIFEx-M...0630	+60°C	+50°C	+60°C
LIFEx-M...0645	+57°C	+47°C	+60°C
LIFEx-M...0660	+47°C	Configuration not available	+58°C
LIFEx-M...1230	+60°C	+60°C	+60°C
LIFEx-M...1260	+60°C	+50°C	+60°C
LIFEx-M...1290	+60°C	+40°C	+60°C
LIFEx-M...12120	+54°C	Configuration not available	+60°C
LIFEx-M...1590	+60°C	+40°C	+60°C

Table 1: Maximum Ambient Temperatures

The following tables provide the Temperature Class for each LifEx type, with the following notes:

- The LifEx-MN with an ambient temperature greater than 50°C is T5 or T4. T6 is not included.
- The Temperature Class in the tables below are not applicable when the ambient temperature is not permitted in the above maximum ambient temperature range
  (For example, the LifEx-M...0660 is not permitted with polycarbonate lens, therefore the Temperature Class (EPL Gb) and Maximum Surface Temperature (EPL Db) for this version in tables 2 and 3 are not applicable)

	Temperature Class Based on ambient temperature						
	40°C	45°C	47°C	50°C	54°C	57°C	60°C
LifEx-M...0310	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0315	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0615	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0630	T6	T5	T5	T5	T5	T4	T4
LifEx-M...0645	T5	T5	T5	T5	T4	T4	T4
LifEx-M...0660	T5	T4	T4	T4	T4	T4	T4
LifEx-M...1230	T6	T6	T6	T6	T6	T6	T6
LifEx-M...1260	T6	T5	T5	T5	T5	T4	T4
LifEx-M...1290	T5	T5	T4	T4	T4	T4	T4
LifEx-M...12120	T5	T4	T4	T4	T4	T4	T4
LifEx-M...1590	T5	T5	T4	T4	T4	T4	T4

Table 2: Temperature Class for LifEx types with glass/polycarbonate lens and with polycarbonate diffuser

	Temperature Class Based on ambient temperature						
	40°C	45°C	47°C	50°C	54°C	57°C	60°C
LifEx-M...0310	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0315	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0615	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0630	T6	T5	T5	T5	T5	T4	T4
LifEx-M...0645	T6	T5	T5	T5	T4	T4	T4
LifEx-M...0660	T6	T4	T4	T4	T4	T4	T4
LifEx-M...1230	T6	T6	T6	T6	T6	T6	T6
LifEx-M...1260	T6	T5	T5	T5	T5	T4	T4
LifEx-M...1290	T6	T5	T4	T4	T4	T4	T4
LifEx-M...12120	T5	T4	T4	T4	T4	T4	T4
LifEx-M...1590	T6	T5	T4	T4	T4	T4	T4

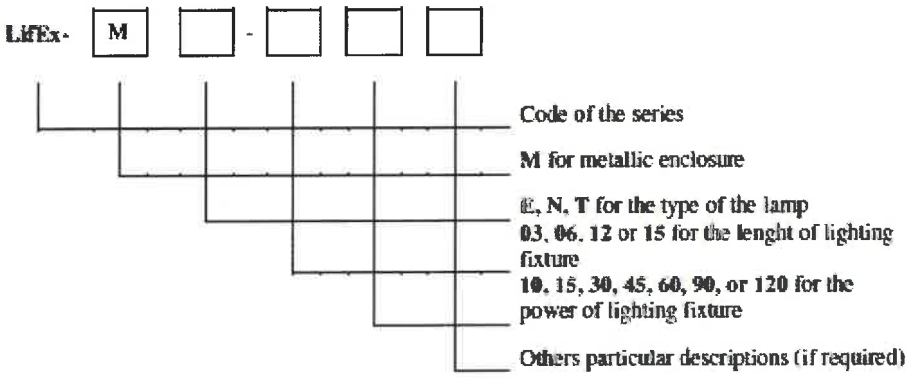
Table 3: Temperature Class for LifEx types with glass/polycarbonate lens and without polycarbonate diffuser

	Temperature Class Based on ambient temperature						
	40°C	45°C	47°C	50°C	54°C	57°C	60°C
LifEx-M...0310	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0315	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0615	T6	T6	T6	T6	T6	T6	T6
LifEx-M...0630	T6	T6	T6	T6	T6	T5	T5
LifEx-M...0645	T6	T6	T6	T6	T5	T5	T5
LifEx-M...0660	T6	T6	T6	T5	T5	T5	T5
LifEx-M...1230	T6	T6	T6	T6	T6	T6	T6
LifEx-M...1260	T6	T6	T6	T6	T6	T6	T5
LifEx-M...1290	T6	T6	T6	T6	T5	T5	T5
LifEx-M...12120	T6	T6	T6	T6	T5	T5	T5
LifEx-M...1590	T6	T6	T6	T6	T5	T5	T5

Table 4: Temperature Class for LifEx types without glass/polycarbonate lens and with polycarbonate diffuser

The equipment has been separately tested against the requirements of IEC 60529 and it meets IP66. The gaskets on the caps provide the degree of protection.

The equipment uses the following nomenclature:



12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 May 2020	R13027A/00	Prime Issue

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

ii. The Increased safety lighting fixtures LifEx series is to be designed in accordance with general electrical safety standards.

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

i. Cable entries are provided which have less than 5 threads engaged. Care must be taken to ensure the correct gaskets and washers are sued with the cable gland to maintain IP66.

ii. The equipment uses an external part that is constructed from non-metallic materials, and as such care is to be taken to prevent an electro-static charging hazard. See instruction manual for details.

iii. For versions with glass window of 4mm thickness without cover, the luminaire must be installed in a location with a low risk of mechanical danger.

iv. The temperature at the entry point may reach up to 75°C. Suitably rated cable glands must be used.

Certificate Annex

Certificate Number	CML 20ATEX3019X
Equipment	LifEx-MN series of linear lighting fixtures
Manufacturer	Cortem S.p.A.

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
A3-7466	1 to 6	0	06 May 2020	LifEx-M Luminaires
A4-7467	1 to 6	0	06 May 2020	Technical Note