



120814

Type Examination Certificate CML 23ATEX4196X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **STREETEX-MN AND SQUAREX-MN LED Lighting Fixtures**
- 3 Manufacturer **Cortem S.p.A.**
- 4 Address **Via Aquileia 10,
34070 Villesse,
Gorizia,
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 67386717, Koopvaardijweg 32, 4906CV Oosterhout, 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 IEC 60079-15:2019

10 The equipment shall be marked with the following:



II 3 G

Ex nR IIC T... Gc

Ta = -** °C to +60



Ben Trafford
Certification Officer



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11 Description

The STREETEX-MN and SQUAREX-MN are LED lighting fixtures that are configured for use in Gas environments.

The STREETEX contains an integral LED Driver. The SQUAREX is powered from a separate LED Driver mounted within an external flameproof enclosure or in a safe area.

The STREETEX-MN and SQUAREX-MN models are suitable for Zone 2 applications.

STREETEX-MN- and SQUAREX-MN models are “restricted breathing” as per EN/IEC 60079-15.

The STREETEX-MN-.. lighting fixture is made by two Ex-nR protected compartments, the LED PCB compartment and the driver compartment. .

The different versions of STREETEX-MN-.. models differ in size, rating and configuration of the LED PCB.

The SQUAREX-MN-.. consists of a single compartment which houses the LED PCB.

The maximum power for the SQUAREX-MN-080100 is 100W.

For all versions of the STREETEX-MN equipment, the glass window is mechanically retained in the cover of the window, sealed with an O-ring

All STREETEX-MN-.. and SQUAREX-MN-.. versions have an environmental ingress protection level of IP 66.

Nomenclature of STREETEX

STREETEX - -

(1) (2) (3)

Where

- (1) = STREETEX Light Fixture
- (2) = Version of Lamp
MN = Cat 3, Zone 2: Ex-nR
- (3) = Size of lighting fixture
080,
100

- (4) = Power of lighting fixture
025 24 W
050 50 W
075 72 W
100 96 W
200 192 W



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Ratings

Type	Size	Nominal Wattage	Nominal Voltage(*)	Frequency
STREETEX-MN	080025	24 W	100-277 Vac, 142-431 Vdc	0-50-60 Hz
	080050	48 W		
	080075	72 W		
	080100	96 W		
	100200	192 W		

(*)The maximum voltage and ambient temperature range is limited dependant on the type of Ex Components fitted by the manufacturer in accordance with the following table:

Type	Size	Nominal Wattage	Nominal Current(*)	Frequency
SQUAREX-MN	080100	100 W	Up to 1,000 mA	0

Temperature Class and Maximum Surface Temperature

STREETEX-MN..

			Temperature Class (EPL Gc)			
Ambient Temperature			40 °C	50 °C	55 °C	60 °C
Light Fixture						
Type	Size	Nominal Power (W)				
StreetEX-MN..	080025	24 W	T5	T4	T4	T4
	080050	48 W	T5	T4	T4	T4
	080075	72 W	T5	T4	T4	T4
	080100	96 W	T5	T4	T4	T4
	100200	192 W	T5	T4	T4	T4

SQUAREX-MN..

			Temperature Class (EPL Gc)			
Ambient Temperature			40 °C	50 °C	55 °C	60 °C
Light Fixture						
Type	Size	Nominal Power (W)				
SQUAREX-MN..	080100	100 W	T5	T4	T4	T4



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Component approved parts

Component	Manufacturer	Type	Certificate number	Markings
Terminals	Cabur SRL	BLP4	CESI 03 ATEX 164U	II 2 G
			IECEX CES 11.0008U	Ex eb IIC Gb
	Cabur SRL	TPL4	CESI 03 ATEX 164U	II 2 G
			IECEX CES 11.0008U	Ex eb IIC Gb
	PHOENIX	UT2,5	KEMA 04 ATEX 2048U	II 2 G
			IECEX KEM 06.0027U	Ex eb IIC Gb
		UT4	KEMA 04 ATEX 2048U	
			IECEX KEM 06.0027U	
	PHOENIX	G5/3	PTB 06 ATEX 1034U	II 2 G Ex e II

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 July 2023	R15890A/00	Issue of prime certificate

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 of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The manufacturer shall ensure that all Ex-Components are installed in accordance with their Schedule of Limitations and manufacturer's instructions, including but not limited to, the creepage and clearance requirements of IEC 60079-7 and wiring size and termination method and that the equipment markings are within the service temperature range and ratings of all the Ex-Components fitted.
- iii. The Manufacturer shall provide copies of certificates and instructions for all certified components installed in the STREETEX AND SQUAREX Series.
- iv. A routine restricted breathing test shall be performed on all equipment as per Clause 12.2.2 of EN/IEC 60079-15.



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14 Specific Conditions of Use (Special Conditions)

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

- i. 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.
- ii. Use suitably certified cable glands with an IP Protection of IP 66 and an applicable method explosion protection applicable with the equipment markings:

The temperature at the entry point may reach up to 95 °C. Suitably rated cable and cable glands must be used as per Safety, maintenance, and mounting instructions.
- iii. The equipment shall be installed in a location that satisfies the requirement for a Low Risk of Mechanical Danger.
- iv. For inspection and replacement of seals and gaskets – consult the manufacturer.
- v. For details of restrictive breathing enclosure (nR) routine tests – see manufacturer's instructions.

Certificate Annex

Certificate Number CML 23ATEX4196X
Equipment STREETEX-MN AND SQUAREX-MN LED Lighting Fixtures
Manufacturer Cortem S.p.A.



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

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Drawing No	Sheets	Rev	Approved date	Title
A3-8094	1 to 2 of 9	0	06 Jul 2023	Lighting Fixture Series STREETEX Assembly and External Dimensions
A3-8094	3 of 9	0	06 Jul 2023	Lighting Fixture Series STREETEX Differences between -MN and -ME versions
A3-8094	4 of 9	0	06 Jul 2023	Lighting Fixture Series STREETEX Gasket dimensions and details of encapsulation
A3-8094	5 of 9	0	06 Jul 2023	Lighting Fixture Series STREETEX Wiring and Label
A3-8094	6 of 9	0	06 Jul 2023	Lighting Fixture Series STREETEX Details of mounting/ Typical Circuit Diagram
A3-8094	7 of 9	0	06 Jul 2023	Lighting Fixture Series SQUAREX Assembly and External Dimensions
A3-8094	8 of 9	0	06 Jul 2023	Lighting Fixture Series SQUAREX Gasket details / Typical Circuit Diagram
A3-8094	9 of 9	0	06 Jul 2023	Lighting Fixture Series SQUAREX Gasket and Dimension details
A4-8117	1 to 7	0	06 Jul 2023	Technical Note