



EU Type Examination Certificate CML 21ATEX1909X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment **Miniature Tank Heater (MTH)**
- 3 Manufacturer **EXHEAT LIMITED** **Exheat Industrial Limited**
- 4 Address **Threxton Road Industrial Estate,
Watton, Thetford, Norfolk,
IP25 6NG,
UK** **Threxton House, Threxton Road
Industrial Estate
Watton - Thetford – Norfolk, IP25
6NG, United Kingdom**
- 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, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 to the Directive.

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

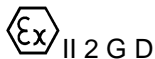
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 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 60079-1:2014

EN 60079-31:2014

- 10 The equipment shall be marked with the following:



II 2 G D

Ex db IIC T6...T3 Gb

Ex tb IIIC T85°C...T200°C Db

IP66/IP68

T_a: -40°C ≤ T_{amb} ≤ +60°C

T_a: -30°C ≤ T_{amb} ≤ +60°C when button thermostat used





CML 21ATEX1909X
Issue 0

11 Description

The Miniature Tank Heater (MTH) is a plug and play immersion heater. The MTH consists of a flameproof enclosure with an M16 cable entry at one end, and an M32 thread adapter at the process fixing end. The enclosure is made from anodised aluminium, whilst the heating element and threaded process fixing are made from either stainless steel or Incoloy 800 or 825. An over temperature trip device is also incorporated to cut out the process heating in the case of an over temperature fault. The MTH is designed to work within a vessel or tank to heat water, oils and any other medium depending upon its design. The MTH has the option to be used with a button type thermostat or without.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	09 May 2022	R14478A/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 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. In order to check the fillet weld, each unit shall be subjected to a routine overpressure test in accordance with the requirements of EN 60079-1:2014 clause 16. The test shall be conducted at a pressure of at least 15.45 bar for at least 10 seconds. There shall be no permanent damage or deformation that would invalidate the type of protection observed as a result of the test.
- iii. The maximum set point of the thermal cut out inside the Ex d enclosure must be 75°C.
- iv. The length of the process fixing between the Ex d enclosure and the process fluid shall be changed so that the temperature at the O-ring cannot exceed the COT of the O-rings (200°C) or the designated temperature class.

14 Specific Conditions of Use (Special Conditions)

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

- i. In accordance with clause 5.1 of EN 60079-1, the flameproof joints of the equipment as well as of the Ex db parts fitted on the enclosure shall not be repaired or modified. For maintenance and/or repairs and information on the dimensions of the flameproof joints contact the original equipment manufacturer.
- ii. The equipment must be mounted horizontally.
- iii. The heating element of the equipment shall be fully immersed in the process fluid before switching on the power supply and at all times when in operation.
- iv. The process temperature of the fluid that the heater is immersed in must not exceed the temperatures listed in the table below when assigned to the corresponding temperature classes:



CML 21ATEX1909X
Issue 0

Process Fluid Temperature	Temperature Class
195°C	T3
130°C	T4
95°C	T5
80°C	T6

Certificate Annex

Certificate Number CML 21ATEX1909X
Equipment Miniature Tank Heater (MTH)
Manufacturer EXHEAT LIMITED



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

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
2004-74-01	1 of 1	6	09 May 2022	Miniature Tank Heater General arrangement drawing
2004-74-02	1 of 1	5	09 May 2022	Mini Tank heater with button thermostat GA
2004-74-03	1 of 1	2	09 May 2022	Mini Tank heater Wiring Diagram
2004-74-06	1 of 1	5	09 May 2022	Mini Tank heater Process fitting and Element assembly
2004-74-10	1 of 1	4	09 May 2022	Mini Tank Heater Ex d enclosure
2004-74-13	1 of 1	4	09 May 2022	Mini Tank Heater Process Fixing Connector
2004-74-42	1 of 1	6	09 May 2022	Miniature Tank Heater nameplate Drawing