

EU-TYPE EXAMINATION CERTIFICATE



Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [2] EU-Type Examination Certificate Number: **DEMKO 16 ATEX 1667X Rev. 2**
- [4] Product: **FX range of Enclosure Heaters, FXB225, FXB325, FXH225, FXH90, FXS**
- [5] Manufacturer: **EXHEAT Limited**
- [6] Address: **Thrextton Road Industrial Estate, Watton -Thetford -Norfolk, IP25 6NG United Kingdom**
- [7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to 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 confidential report no. **4788175499**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0:2012+A11:2013 EN 60079-1:2014 EN 60079-31:2014**
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.
- [11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.
- [12] The marking of the product shall include the following:



II 2 GD

Ex db IIC T4...T3 Gb

Ex tb IIIC T135°C...T200°C Db

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2016-12-02

Re-issued: 2017-10-24



Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Schedule

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[15]

Description of Product

The products in the FX range consist of an extruded Aluminium finned body with an electrical cartridge heating element fitted within a central bore. The range uses fixed resistance and self-regulating heating elements.

FXB type, fixed resistance heaters must be mounted with the fins oriented vertically to allow for optimal airflow and convection.

FXH type, fixed resistance heaters may be mounted either vertically or flat to the base of the enclosure.

FXS type, self-regulating heaters may be mounted vertically, horizontally or flat on the base of the enclosure.

An electrical supply cable is fitted to the heater using a suitably certified cable gland. The cable must be terminated in suitably certified terminals or enclosure for the area of use (terminals/enclosure not supplied with the heater).

Where a fixed resistance heating element is utilised, the assembled heater shall be able to run at the specified temperature class indefinitely.

Product nomenclature

'FX' – Denotes the overall FXB, FXH and FXS heater ranges.

'FXB' – Block type extruded enclosure heater with fins on front and back, available in 225 mm and 325 mm lengths, all other dimensions are the common to both lengths.

'FXH' – Flat block type enclosure heater with fins on front face only, available in 90 mm and 225 mm lengths. Models use same fin design but differ significantly in size and features.

'FXS' - Self-regulating type enclosure heater that does not follow the dimensional specifications of the FXB or FXH models.

Each of the 4 sizes of heater will be available in a range of fixed resistance and self-regulating variants.

The FXS enclosure is only available with the self-regulating element

Temperature range

Maximum ambient temperature range -60°C to +180°C

Depending upon configuration and construction materials.

The relation between ambient temperature and the assigned temperature class is as follows:

Model	Maximum Ambient temperature	Temperature class Group II / III
When fitted with a Fixed Resistance Heater Element		
FXB325 511W	+40°C	T3 / 200°C
FXB325 252W	+40°C	T4 / 135°C
FXB325 252W	+80°C	T3 / 200°C
FXB225 376W	+40°C	T3 / 200°C
FXB225 210W	+40°C	T4 / 135°C
FXB225 210W	+80°C	T3 / 200°C
FXH225 204W	+40°C	T3 / 200°C
FXH225 135W	+40°C	T4 / 135°C
FXH225 135W	+80°C	T3 / 200°C
FXH90 85W	+40°C	T3 / 200°C
FXH90 45W	+40°C	T4 / 135°C
FXH90 45W	+80°C	T3 / 200°C
When fitted with a Self-Regulating Heater Element		
FXS 110°C	+130°C	T4 / 135°C
FXB 110°C	+130°C	T4 / 135°C
FXH 110°C	+130°C	T4 / 135°C
FXS 160°C	+160°C	T3 / 200°C
FXB 160°C	+160°C	T3 / 200°C
FXH 160°C	+160°C	T3 / 200°C
FXS 180°C	+180°C	T3 / 200°C
FXB 180°C	+180°C	T3 / 200°C
FXH 180°C	+180°C	T3 / 200°C

Electrical data

Certified up to:

FXB325, Fixed Resistance - 511W, 600VAC

FXB225 Fixed Resistance - 376W, 600VAC

FXH225 Fixed Resistance – 204W, 600VAC

FXH90 Fixed Resistance – 85W, 600VAC

FXS, FXB, FXH Self Regulating – 265VAC

Rated up to 15A max for range

Routine tests

Routine tests according to EN 60079-1 cl. 16 are not required; the enclosure has a free internal volume of ≤10cm³ and does not incorporate welded construction.

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Schedule

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Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

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Specific conditions of use:

- No repair to the flameproof joints is permitted.
- Special precautions are necessary to reduce the risk due to electro-static discharge in fixed installations. Refer to the installation/operation instructions.

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Essential Health and Safety Requirements

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

Additional information



The trademark **EX HEAT** will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.