



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	IECEx LCI 07.0005X	issue No.:1	Certificate history: Issue No. 1 (2008-11-21) Issue No. 0 (2007-6-5)
Status:	Current		
Date of Issue:	2008-11-21	Page 1 of 4	
Applicant:	<b>EXHEAT LIMITED</b> Threxton Road Industrial Estate Watton, Thetford, Norfolk IP25 6NG United Kingdom		
Electrical Apparatus: <i>Optional accessory:</i>	FWD and FWD-T Flameproof Air Warmer		
Type of Protection:	Flameproof 'd' and Dust 'tD'		
Marking:	<b>EXHEAT LIMITED</b> Type : FWD or FWD-T Serial Number Year of construction Ex d IIC T2 to T4 Ex tD A21 IP 66 T...°C IECEx LCI 07.0005 X WARNING - DO NOT OPEN WHILE ENERGIZED WARNING - DO NOT OPEN WHEN AN EXPLOSIVE DUST ATMOSPHERE IS PRESENT T cable entry = +82 °C (Ta = +60°C) T branching point = + 80 °C (Ta = +60°C)		
Approved for issue on behalf of the IECEx Certification Body:	Marc GILLAUX		
Position:	Ex certification manager		
Signature: (for printed version)			
Date:	21-11-2008		

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

**Laboratoire Central des Industries Electriques (LCIE)**  
33 Avenue du General Leclerc  
FR-92260 Fontenay-aux-Roses  
France







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Manufacturer: **EXHEAT LIMITED**  
Threxton Road Industrial Estate  
Watton, Thetford, Norfolk  
IP25 6NG  
**United Kingdom**

**Manufacturing location(s):**

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

**STANDARDS:**

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2003</b> Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

**TEST & ASSESSMENT REPORTS:**

*A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in*

Test Report:

FR/LCI/EXTR07.0005/01

Quality Assessment Report:

FR/LCI/QAR06.0005/00





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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The FWD air warmer is a tubular convector heater comprising a ceramic core type electric heating element fitted in an horizontally mounted mild steel or stainless steel externally finned tube and terminated in an integral Ex d IIC terminal enclosure.

A FWD-T model additionally includes the option of integral externally adjustable thermostatic control.

The maximum rating is established to ensure that whilst continuously energised at its rated voltage a given temperature class cannot be exceeded in a given ambient.

The enclosure is made of mild steel or stainless steel of welded construction with a threaded cover for the FWD model and of cast aluminium with a spigot cover for the FWD-T model. All electrical connections are terminated in the terminal enclosure. The equipment for both model is designed to operate in a -60°C to +60°C ambient temperature.

### CONDITIONS OF CERTIFICATION: YES as shown below:

Ambient operating temperature range: -60°C to +60°C

Temperature classification according to a power density of 0.33W/cm<sup>2</sup>:

T4 for gas and T135°C for dust according to an ambient operating temperature range of -60°C to +40°C

T3 for gas and T200°C for dust according to an ambient operating temperature range of -60°C to +60°C

Temperature classification according to a power density of 0.67W/cm<sup>2</sup>:

T3 for gas and T200°C for dust according to an ambient operating temperature range of -60°C to +40°C

T2 for gas and T300°C for dust according to an ambient operating temperature range of -60°C to +60°C





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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

- Change of company name : EXHEAT instead of HEATEX
- Low ambient temperature : -60°C