

Intertek



1. EC-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3. EC-Type Examination Certificate Number: ITS14ATEX18050X

4. Equipment or Protective System: CCX Cast Block Heater

5. Manufacturer: CHROMALOX INC

6. Address: 2150 N Ruion White Blvd,
Ogden,
UT 84404

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Intertek Testing and Certification Limited, notified body number 0359, in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Intertek Report Ref G101613567 Issue 001, dated January 2015

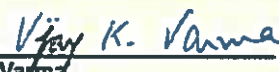
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012+A1:2013, EN 60079-7:2007 and EN 60079-1:2014 except in respect of those requirements referred to at Item 18 of the Schedule.

10. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11. This Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12. The marking of the equipment shall include the following :-

 II 2 G Ex de IIC T3 or T2 Gb Ta -20°C to +40°C or 60°C See Schedule


V K Vajma
Certification Officer
19 March 2015

Intertek Testing & Certification Limited
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB
Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977
<http://www.intertek.com>
Registered No: 3272281 Registered office: Academy Place, 1-9 Brook Street, Brentwood, Essex,
CM14 5NQ

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13. SCHEDULE

14. EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS14ATEX18050X

15. DESCRIPTION OF EQUIPMENT OR PROTECTIVE SYSTEM

The Chromalox CCX Cast Block Heater is based on the CFP family of heaters, certified in certificate numbers ITS02ATEX1022X for the CFP8 and ITS02ATEX1024X for CFP JB (Junction Box) sensor enclosure. The enclosure of the CFP8 enclosure which is drilled to accept metal sheathed heating elements, which pass through flameproof glands into the base. This version incorporates an Aluminium block which is cast around the heating elements. The process fluid flows through the block through inlet and outlet connections and is in turn heated.

A stand off is provided to limit the temperatures in the CFP enclosure. If the stand off is insulated then this thickness is added to the overall stand off dimension and not incorporated. The following table describes the parameters which are applicable:

Orientation	Stand off height (not including insulation thickness)	Ambient	Temperature Class
Vertically Mounted	120 mm	-20°C to +40°C	T3
Vertically Mounted	130 mm	-20°C to +60°C	T3
Horizontally Mounted	120 mm	-20°C to +40°C	T3
Horizontally Mounted	130 mm	-20°C to +60°C	T2

To avoid the heater exceeding the stated T-Class, three thermal trips are provided. The temperature protection thermocouples (or alternatively RTDs) are fitted by the manufacturer. The types of temperature sensors (RTD, Thermocouple or Cut-Out) are the same as for the CFP range. The type that is selected is dependant on what the end user's control system requires.

A third thermowell is provided for either process control or overtemperature control

If one or two of the temperatures sensors were to fail in the field then the set points of the remaining sensors would prevent an overtemperature situation from occurring until maintenance can be conducted

16. REPORT NUMBER

Intertek Report Ref G101613567 Issue 1 dated January 2015

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17. SPECIAL CONDITIONS FOR SAFE USE

1. Thermal trips are used to protect against exceeding the temperature class of the equipment. The following table provides guidance on the selection of temperatures at which the heater should de-activate so that the temperature class is not exceeded.

Orientation	Thermal Trip 1	Thermal Trip 2	Ambient	Temperature Class
Vertically Mounted	135.8 °C	145.4 °C	-20°C to +40°C	T3
Vertically Mounted	155.8 °C	164.4 °C	-20°C to +60°C	T3
Horizontally Mounted	134.1°C	159.5°C	-20°C to +40°C	T3
Horizontally Mounted	254.1°C	279.5°C	-20°C to +60°C	T2

It is the user's responsibility to determine what action is taken in the event of over temperature condition

2. It shall be ensured that the system is primed and full of fluid prior to switching the power on.

18. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (EHSR'S)

The relevant EHSR's have been identified and assessed in Intertek Report Ref G101613567 Issue 001 dated January 2015

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19. DRAWINGS

Number	Title	Issue	Date
196-071709-113	ATEX CAST BLOCK HEATER LABEL	4	03/10/15
053-306994-997 (sheet 1 of 3)	CAST ELEMENT BODY CIRCULATION HEATER 10kW – 30kW	4	01/21/15
053-306994-997 (sheet 2 of 3)	CAST ELEMENT BODY CIRCULATION HEATER 10kW – 30kW	4	01/21/15
053-306994-997 (sheet 3 of 3)	CAST ELEMENT BODY CIRCULATION HEATER 10kW – 30kW	4	01/21/15
044-306994-001 (sheet 2 of 3)	CAST ELEMENT BODY CIRCULATION HEATER 10kW – 30kW	1	12/23/13
337-018308-063 (Sheet 1 of 3)	WIRING DIAGRAM WD-018E01C-3D-220A- OP-6V-CO 18 ELEMENTS, 25mm PITCH	1	05/14/14
337-018308-063 (Sheet 3 of 3)	WIRING DIAGRAM WD-018E01C-3D-220A- OP-6V-CO 18 ELEMENTS, 25mm PITCH	1	12/13/13
053-306994-997 (sheet 1 of 3)	CAST ELEMENT BODY CIRCULATION HEATER 10kW – 30kW	3	01/16/15
053-306994-997 (sheet 1 of 3)	CAST ELEMENT BODY CIRCULATION HEATER 10kW – 30kW	3	01/16/15

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

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