



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:** ITS11ATEX27435X Issue 2

4. **Equipment or Protective System:** BDI-FLX Burst Disc Indicator

5. **Manufacturer:** Continental Disc Corporation

6. **Address:** 3160 West Heartland Drive  
Liberty, MO 64068  
USA

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 11051744 Issue 2 dated August 2015.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2012 and EN 60079-11:2012 except in respect of those requirements referred to at item 16 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 EC 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 or protective system shall include the following:-

**BDI-FLX Interface Cable:**

 II 1 GD Ex ia IIC T4 Ga Ex ia IIIC T135°C Da IP67 -40°C ≤ Ta ≤ +70°C

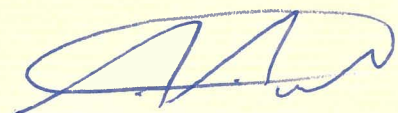
**BDI-FLX Sensor:**

 II 1 GD Ex ia IIC Tx Ga Ex ia IIIC Tx Da -40°C ≤ Ta ≤ +204°C

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**A T Austin**  
Certification Officer  
28<sup>th</sup> August 2015

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification's Conditions for Granting Certification.

## SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS11ATEX27435X Issue 2

### 13. Description of Equipment or Protective System

The **Continental Disc Corporation BDI-FLX System** is a burst disc indicator system powered from an intrinsically safe interface (with galvanic isolation or from a zener barrier) for location in Zone 0 or Zone 20 hazardous areas. The burst disc indicator includes a resistive sensor element which changes resistance in response to bending, and therefore provides warning of the rupture disc's burst. An interface unit mounted in close proximity to the sensor converts the sensor signal into a signal to be interpreted by a switch amplifier or similar device in the non-hazardous area.

IS Parameters:

$U_i = 12 \text{ Vdc}$   
 $I_i = 60 \text{ mA}$   
 $P_i = 180 \text{ mW}$   
 $C_i = 1.11 \mu\text{F}$   
 $L_i = 0$

### 14. Report Number

Intertek Report Ref 11051744 Issue 2 dated August 2015.

### 15. Conditions of Certification

(a). Special Conditions for safe use

Temperature Class of the BDI-FLX sensor is marked as Tx, since the surface temperature is controlled by the process temperature being monitored. The sensor itself exhibits negligible temperature rise.

When located in an area requiring EPL Ga / Category 1G (e.g. Zone 0 hazardous areas), the user shall ensure that electrostatic charging of the interface enclosure cannot occur.

When located in area requiring EPL Gb, Da or Db, Category 2G or 1D or 2D (e.g. Zone 1 or explosive dust atmospheres), the interface enclosure represents an electrostatic hazard and the enclosure shall only be cleaned using a damp cloth. Solvents shall not be used.

(b). Conditions of Manufacture

None

### 16. Essential Health and Safety Requirements (EHSR's)

The relevant EHSR's have been identified and assessed in Intertek Report Ref 11051744 Issue 2 dated August 2015.

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**SCHEDULE**

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**17. Drawings and Documents**

Document No.	Sheets	Document Title	Issue	Date (mm-dd-yy)
BDI-FLXCD	1	BDI-FLX Control Drawing	B	6-14-12
SNS-XXXX-12-XX-FLX	1	1"-12" BDI-FLX Sensor	C	2-1-12
429-1000-01	2	BDI-FLX Two Wire Intrinsically Safe Printed Circuit Board	D	2-1-12
431-1000-0X	1	BDI-FLX Interface Cable	F	1/29/2014
LMD-ICL-1001	1	BDI-FLX 2W-IS Interface Cable Label	C	6/4/2014
LMD-FSL-1001	1	BDI-FLX Burst Disc Sensor Label	C	6/3/2014

**18. Revisions**

**February 2012**

Issue 1 Original certificate issue (11051744)

**August 2015**

Issue 2 Update to standards & drawings (G101585709)

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