

EU TYPE-EXAMINATION CERTIFICATE

1. EU type-examination Certificate (Module B)
2. Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)



3. EU type examination certificate Nr **ITS11ATEX27435X R.2**

4. **Product:** BDI-FLX Burst Disc Indicator

5. **Manufacturer:** Continental Disc Corporation, LLC

Applicant: Continental Disc Corporation, LLC

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

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7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.
8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the 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 system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. 11051744 issue 1, dated February 2012, 104302656CRT-001a dated 1-May-2020 and 104646863CRT-002a dated 01-June-2021.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 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 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 this certificate.
12. The marking of the product shall include the following:



BDI-FLX Interface Cable:

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

BDI-FLX Sensor:

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

Certificate issue date

23 June 2021



Todd L. Relyea
Certification Officer
Intertek Italia S.p.A. (NB 2575)



PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements



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.

Intertek Italia S.p.A. Via Miglioli, 2/A - 20063 Cernusco sul Naviglio, Milano - Italy



SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS11ATEX27435X R.2

13. DESCRIPTION OF THE 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:

$U_i = 12\text{VDC}$

$I_i = 60\text{ mA}$

$P_i = 180\text{ mW}$

$C_i = 1.11\mu\text{F}$

$L_i = 0$

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.

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.

14. DRAWINGS AND DOCUMENTS

TITLE	DOCUMENT Nr	LEVEL	DATE
BDI-FLX Control Drawing (sheet 1)	BDI-FLXCD	D	4/15/2020
1"-12" BDI-FLX Sensor (sheet 1)	SNS-XXXX-12-XX-FLX	E	4/15/2020
BDI-FLX Two Wire Intrinsically Safe Printed Circuit Board (sheets 2)	429-1000-01	F	4/15/2020
BDI-FLX Interface Cable (sheet 1)	431-1000-0X	H	4/15/2020
BDI-FLX 2W-IS Interface Cable Label (sheet 1)	LMD-ICL-1001-SD	G	4/30/2021
BDI-FLX Burst Disc Sensor Label (sheet 1)	LMD-FSL-1001-SD	F	4/30/2021

Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

15. SPECIAL CONDITIONS FOR SAFE USE

- When located in a Zone 0 hazardous area, the user shall ensure that electrostatic charging of the interface enclosure cannot occur.
- When located in Zone 1 or Zone 2, the interface enclosure represents an electrostatic hazard and the enclosure shall only be cleaned using a damp cloth. Solvents shall not be used.



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16. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek 11051744 issue 1, dated February 2012, 104302656CRT-001a dated 21-May-2020 and 104646863CRT-002a dated 01-June-2021.

17. ROUTINE (FACTORY) TESTS

None

18. DETAIL OF CERTIFICATE CHANGES

R.1 (28 May 2020):

- Revised drawing 429-1000-01 from revision D date 02.01.2012 to F date 4/15/2020
- Revised drawing 431-1000-0X from revision D date 02.01.2012 to H date 4/15/2020
- Revised drawing BDI-FLXCD from revision A date 02.01.2012 to D date 4/15/2020
- Revised drawing LMD-FSL-1001-02 from revision N/R date 02.16.2012 to LMD-FSL-1001 revision E date 4/15/2020
- Revised drawing LMD-ICL-1001-02 from revision N/R date 02.16.2012 to LMD-ICL-1001 revision F date 4/15/2020
- Revised drawing SNS-XXXX-12-XX-FLX from revision C date 02.01.2012 to revision E date 4/15/2020
- Updated standard from EN 60079-0:2012 to EN 60079-0:2012 +A11:2013.

R.2 (23 June 2021):

- Change Applicant and Manufacturer Name from Continental Disc Corporation to Continental Disc Corporation, LLC
- Updated standard from EN 60079-0:2012 +A11:2013 to EN IEC 60079-0:2018.
- Drawing LMD-ICL-1001-01 replace with drawing LMD-ICL-1001-01-SD revision G date 4/30/2021.
- Drawing LMD-FSL-1001-01 replace with drawing LMD-FSL-1001-01-SD revision F date 4/30/2021.