

EC-TYPE EXAMINATION CERTIFICATE

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

EC-Type Examination Certificate Number: ITS15ATEX18378X

Equipment or Protective System: Optical Encoder Type OCM and Magnetic Encoder Type UCM

Manufacturer: FRABA B.V.

Address: Jan Campertstraat 11
6416 SG Heerlen
The Netherlands

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

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 102369261CHE-002 Dated: January 2016

Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2012 +A11:2013, EN 60079-1:2014 and EN 60079-31:2014 except in respect of those requirements referred to at item 16 of the Schedule.

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.


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.

The marking of the equipment or protective system shall include the following:-

 I M2 Ex db I Mb
II 2 G Ex db IIC T5 Gb
II 2 D Ex tb IIIC T100 °C Db IP6X
-40 °C ≤ Ta ≤ +70°C

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Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.


P Moss
Certification Officer
29 January 2016

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SCHEDULE

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13. Description of Equipment or Protective System

The Optical Encoders Type OCM and Magnetic Encoders Type UCM are small flameproof enclosures containing electronics. The encoder housing is manufactured from stainless steel or acid proof stainless steel with a drive shaft in one end shield. The shaft can be either solid type shaft or hollow type shaft. The body makes one cylindrical joint with the drive end shield on another side. Each end shield (the drive end and the non-drive end) is secured to the body with six M4 counter bored socket head cap screws. O-rings are fitted to each cylindrical joint. There is a shaft seal on drive end seal, where two ball bearings are mounted to the cylindrical joint between the shaft and the drive end shield. The encoder housing can be provided with up to three M20 x 1.5 or M25 x 1.5 threaded entries on the non-drive end shield. These threaded entries are closed with the suitable separately ATEX certified cable glands. All unused entries must be closed with suitable separately ATEX certified blanking elements. The apparatus is rated at 450 mA maximum current and voltage range up to 30 V dc. Rated speed for type variants with seal max 3000 rpm, without seal max. 6000 rpm. Max. permissible load on the shaft: axial 60 N and 80 N radial.

Additionally the encoders meet IP64/65/66/67 in accordance with EN 60529.

14. Report Number

Intertek Report 102337162CHE-002 Dated: January 2016

15. Conditions of Certification

(a). Special Conditions for safe use

- It is a condition of certification that the flame paths have to comply with the manufacturers drawings and can only be repaired by the manufacturer.
- It is a condition of certification that precautions must be taken to avoid dust from forming layers on the encoder.
- The fasteners used to secure enclosure body to end shields shall have a minimum yield stress of 450 MPa.
- Use only suitably certified Ex db I Mb/ Ex db IIC Gb and Ex tb IIIC Db cable glands, thread adapters and blanking elements.

(b). Conditions of Manufacture

- There are no routine tests.

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

The relevant EHSR's have been identified and assessed in Intertek Report 102369261CHE-002 Dated: January 2016

17. Drawings and Documents

Title	Drawing No.:	Rev. Level:	Date:
OCM (EXME) – Posital PL Marking label 100x23 Ex-dwg.	00240297	3	27.01.2016
UCM (EXME) – Posital PL Marking label 100x23 Ex-dwg.	00240340	1	27.01.2016

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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