

EU-Type Examination Certificate



1. **EU-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU**
3. **EU-Type Examination Certificate Number: ITS10ATEX16925X Issue 3**
4. **Product:** Optical Encoder Type EXME-A*, EXME-H*
5. **Manufacturer:** Scancon Encoders A/S
6. **Address:** Huginsvej 8, 3400 Hilleroed, Denmark
7. This product 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 17 of Directive 2014/34/EU of the European Parliament and of the Council dated 26 February 2014, certifies that the product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products 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 102853327CHE-001 dated June 2017.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with 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.
10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of 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:



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

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P Moss
Certification Officer
20th June 2017



SCHEDULE

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13. Description of Equipment or Protective System

The Optical Encoders EXME 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 (EXME-A) or hollow type shaft (EXME-H). 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 four M20x1.5, M25x1.5, ½"NPT or ¾"NPT 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 300 mA maximum current and voltage range from 10 V dc 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 Ref: 102853327CHE-001 dated June 2017.

15. Special Conditions of Certification

(a). Specific Conditions of 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 the 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 - Routine Tests

- There are no routine tests.

16. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report Ref: 102853327CHE-001 dated June 2017.



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17. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
*Certification dwg Housing EXAG/EXME Ex dwg	00132207C	7	17-05-2017
*Certification drawing – H. shaft/shaft Ø17 EXAG/EXME Ex dwg	00132208C	3	17-05-2017
*Certification dwg – Cover Tube EXAG Ex dwg	00132213C	4	17-05-2017
*Certification drawing – H. shaft/shaft Ø30 EXAG/EXME Ex dwg	00132215C	4	17-05-2017
*Certification dwg – EXAG Back Cover Ex dwg	00132216C	4	17-05-2017
Encoder type EXAG/EXME “k” calculation Ex-dwg	00230164	1	27.05.2015
Encoder type EXAG/EXME “m” calculation Ex-dwg	00230165	1	27.05.2015
Certification drawing – EXAG Back Cover, Internal External Earthing Ex dwg	80230175C	2	17-05-2017
Ring Cable Shoe Yellow – M4	06300054	1	09-07-2013
*Allen Screw M4x25 ISO4762 A2-70	07130026	2	17-05-2017
Allen screw M4x12 ISO4762 A2-70	07130059	3	18-10-2012
Allen Screw M4x35 ISO4762 A2-70	07130063	3	18-10-2012
*Allen screw M4x50 ISO4762 A4-80	07130074	3	17-05-2017
*Allen screw M4x12 ISO4762 A4-80	07130094	3	17-05-2017
*Allen screw M4x35 ISO4762 A4-80	07130097	4	17-05-2017
*Allen screw M4x25 ISO4762 A4-80	07130102	2	17-05-2017
*Allen screw M4x55 ISO4762 A4-80	07130103	2	17-05-2017
*Allen screw M8x1,25 25mm long DIN 912 A4-80	07160027	3	04-12-2013
*Allen screw M8x50 ISO4762 A4-80	07160028	3	17-05-2017
*Allen screw M8x80 ISO4762 A4-80	07160029	2	17-05-2017
*Allen screw M8x1,25 45mm long DIN 912 A4-80	07160030	3	04-12-2013
EXAG.. Adresse label 100x23 Ex-dwg.	00141742	2	05.01.2015
*Warning Label Label for mining and surface Ex-dwg.	00142898	7	17.05.2017
*EXME Warning Label Suppl. doc. to doc. 00142898 Ex-dwg.	00142898B	1	17.05.2017
*EXME Ordering Code Ex-dwg	00240171	2	17.03.2017
*EXME Marking Label 100x23 Ex-dwg.	00240172	2	17.05.2017
*EXME Marking label 100x35 Ex-dwg.	00240173	2	17.05.2017
*Type EXME Installation Guide (Pages 1 to 3)	00240719	1	17 May 2017

*Note: An * is included before the title of documents that are new or revised.*

