

**SCANCON®****Сертификат ISO 9001:2000**

U N D E R W R I T E R S L A B O R A T O R I E S I N C .
C E R T I F I C A T E O F R E G I S T R A T I O N

Scancon A/S

Tranevang 1
DK-3450 Allerød
Denmark

Underwriters Laboratories Inc.® (UL) issues this certificate to the Firm named above, after assessing the Firm's quality system and finding it in compliance with

ISO 9001:2000

EN ISO 9001:2000; BS EN ISO 9001:2000; ANSI/ASQ Q9001:2000

for the following scope of registration

3829 (US) : Measuring and Controlling Devices, Not Elsewhere Classified

The design and manufacture of encoders.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2000 requirements may be obtained by consulting the organization.

This quality system registration is included in UL's Directory of Registered Firms and applies to the provision of goods and/or services as specified in the scope of registration from the address(es) shown above. By issuance of this certificate the firm represents that it will maintain its registration in accordance with the applicable requirements. This certificate is not transferable and remains the property of Underwriters Laboratories Inc. ®.

File Number: A11675

Volume: 1

Issue Date: May 14, 2003

Renewal Date: May 14, 2006

S. Joe Bhatia
Executive Vice President and
Chief Operating Officer - International





[1] **PRODUCT QUALITY ASSURANCE NOTIFICATION**

[2] **Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC**



[3] Notification Number: **05 ATEX Q133034**

[4] Equipment or Protective System or Components as listed
**Encoders with the following Protection principle:
Flameproof Enclosure "d"**

[5] **Applicant:** **Scandinavian Construction Company A/S**
Tranevang 1
3450 Allerød
Denmark

[6] **Manufacturer:** **Same as applicant**

[7] UL International Demko A/S notified body number 0539 for Annex VII in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, notifies to the applicant that the actual manufacturer has a quality system which complies to Annex VII of the Directive.

[8] This notification is based on audit report No.
133034-02 Dated 2005-10-14.

This notification can be withdrawn if the manufacturer no longer satisfies the requirements of Annex VII. The Manufacturer is obliged to inform UL International Demko A/S of any changes in their ISO 9001:2000 registration or other aspects upon which this notification has been given.

Results of periodical re-assessment of the quality system are a part of this notification.

[9] This notification supersedes earlier issued 02 ATEX Q133034 dated 2002-09-07 and is valid until:
2008-10-14

This notification can be withdrawn if the Manufacturer does not satisfy the product quality assurance re-assessment.

[10] According to Article 10[1] of the Directive 94/9 EC the CE marking shall be followed by the identification number 0539 identifying the notified body involved in the production control stage.

On behalf of UL International Demko A/S

Herlev, 2005-11-11

Klaus Møller Hansen
QRS Lead Auditor

Notification: 05 ATEX Q133034

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in its entirety and without any change



[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: DEMKO 02 ATEX 132220

[4] Equipment: Optoelectronic Incremental Encoder

[5] Manufacturer: Scandinavia Construction Comp. A/S

[6] Address: Tranevang 1, 3450 Allerød, Denmark

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

[8] UL International Demko A/S, notified body number 0539 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 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 report no. 132220-01

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50014: 1997 E incl. A1+A2 EN 50018: 2000 E EN 50281-1-1: 1998

[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.

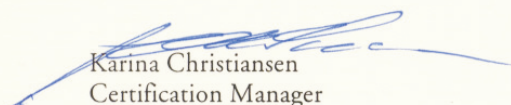
[11] This EC-Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system.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

[12] The marking of the equipment or protective system shall include the following:

Ex II 2 G/D EEx d IIC T6

On behalf of UL International Demko A/S

Herlev, 2002-11-20


Karina Christiansen
Certification Manager

UL International Demko A/S

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Certificate: 02 ATEX: 132220

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[13]

Schedule

[14]

EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 02 ATEX 132220

[15]

Description of Equipment or protective system

The Incremental Encoder is a small flameproof construction containing the electronics. Based on the very low current consumption the temperature class will not be affected by the electronics. The shaft is designed with 2 precision ball bearings and a separate flame path.

Nomenclature for type: 2REX-A and 2REX-H a b c d e f g h

a b c d e f g h where:

- a: indicates Pulses/rev.
- b: indicates materiel of housing and body
- c: indicates Output signal.
- d: indicates diameter of shaft or hollow shaft
- e: indicates IP-rating
- f: indicates Length of cable in meters.
- g: indicates type and placement of cable outlet
- h: indicates type of flange on body

The approval covers the above mentioned type variants, which do not have any influence on the flameproof construction of the enclosure.

Temperature range

The ambient temperature range is -40 °C to +75 °C.

Installation instructions

All cable entry devices and blanking elements shall be certified in type of explosion protection flameproof enclosure "d", suitable for the conditions of use and correctly installed.

Routine tests

The maximum reference pressure measured according to EN 50018, subclause 14.1.2 is 2.4 bars. The enclosure has been type tested according to EN 50018, sub-clause 14.1.3.1 by a static pressure of 4 times the reference pressure, i.e. 9.6 bars. Unit testing of the equipment may therefore be excluded.

[16]

Report No.

Project Report No.: 132220-01 (Hazardous Location Testing)

Project Report No.: 132220-02 (Hazardous Location Testing)

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Certificate: 02 ATEX 132220
Report: 132220-02

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Schedule

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EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 02 ATEX 132220

Number	Date	Description
01-4-7430	2002-10-07	2REX -X-X. Typeskilt
01-4-9754	2002-09-12	2REX numbering code
01-4-7440	2003-03-10	IG.-2REX A/H Kappe Sideudg. ½" NPT
01-3-7366	2002-09-12	Encoder type 2REX-Hconstruction dwg.
01-3-7442	2002-10-01	Encoder type 2REX med NPT Ex-forskruning
01-3-7410	2002-10-01	Encoder type 2REX med Scancon Ex-forskrun
01-4-8173	2002-09-13	IG.-Rex A/H housing for cable entry side
01-4-8452	2002-09-12	IG.-Rex A/H housing for cable entry back
01-4-8177	2002-09-12	2REX-SR cable gland
01-4-3108	2002-09-10	IG 2D EEx (d) / 2REX cable gland insert
01-3-7406	2002-09-12	Encoder type 2REX-H samlingstegn.
01-3-7407	2002-09-12	Encoder type 2REX-A samlingstegn.
01-3-7386	2002-09-12	Encoder type 2REX-H catalog dwg.
01-3-7387	2002-09-12	Encoder type 2REX-A catalog dwg.
01-2-9640	2002-10-09	2REX-SR body for IP67
01-3-8175	2002-09-12	2REX-SR shaft ø10
01-3-7392	2002-09-12	2REX shaft ø10
01-3-8286	2002-09-12	2REX-A-SR aksel ø10
01-3-7477	2002-09-12	2REX hollow shaft ø10
01-3-7478	2002-09-12	2REX hollow shaft ø12
01-3-7393	2002-09-12	2REX hollow shaft ø14
01-3-9840	2002-09-12	2REX hollow shaft ø15
01-4-8126	2002-09-12	2REX / 2RHI IP66 counter for nut for IP67
01-4-8283	2002-09-16	2REX -A-SR M20x1,5 cable gland
01-2-0019	2002-11-01	2REX Encoder body for ID no 591205
01-4-0018	2002-11-01	1G 2REX A/H kappe bagud for ID no 591205
01-3-0020	2002-11-01	Encoder type 2REX-A ID no 591205
00130986	2006-04-28	Encoder type 2REX with M20x1,5 ex-cable Gland spaltetegning
00140985	2006-04-27	IG.-2REX SR A/H Cap for M20x1,5 ATEX Cable Gland
00140996	2006-05-18	IG.-2REX-AL-A/H Cap for M20x1,5 ATEX Cable Gland

[17]

Conditions for safe use:

None

[18]

Essential Health and Safety Requirements

Concerning ESR this Schedule verifies compliance with the Ex standards only. The manufacturer's Declaration of Conformity declares compliance with other relevant Directives.

UL International Demko A/S

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Certificate: 02 ATEX 132220

Report: 132220-02

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Schedule

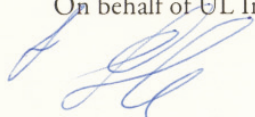
[14]

EC-TYPE EXAMINATION CERTIFICATE No. DEMKO 02 ATEX 132220

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in ANNEX III to Directive 94/9/EC of the European Parliament and the Council of 23 March 1994.

On behalf of UL International Demko A/S

Herlev, 2006-08-29


Karina Christiansen
Certification Manager



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