

EU-TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 2014/34/EU**

[3]

EU-Type Examination Certificate Number: **DEMKO 18 ATEX 1932X Rev. 0**

[4]

Product: **ExR-1 Robot Operator**

[5]

Manufacturer: **ExRobotics B.V.**

[6]

Address: **Effenseweg 1, Breda, 4838 BA, The Netherlands**

[7]

This product and any acceptable variation thereto are 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 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to 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 report no. **4787990813.8.3**

[9]

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0:2012+A11:2013
EN 60079-7:2015**

**EN 60079-1:2014
EN 60079-11:2012**

**EN 60079-5:2015
EN 60079-18:2015**

[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 the certificate.

[12]

The marking of the product shall include the following:



II 2 G Ex db eb ib mb qb IIB T4 Gb

Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2018-09-28

Notified Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com



[13]

[14]

Schedule

EU-TYPE EXAMINATION CERTIFICATE No.

DEMKO 18 ATEX 1932X Rev. 0

[15]

Description of Product

The ExR-1 Robot Operator is a remotely operated robotic vehicle that is used to inspect oil and gas facilities. The ExR-1 Robot Operator is constructed of certified components including cameras, lights, motors, and various sensors. The various components are interconnected with certified cable glands and suitable cables.

Performance testing

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is not covered in this certificate.

Temperature range

The ambient temperature range is $-20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$.

Electrical data

Maximum Wattage 1300W

Intrinsically safe specifications:

U_m : 240V

Routine tests

- Routine Surface Resistance test in accordance with Clause 4.2.3 of EN 60079-32-2 shall be conducted on each Thistle Track Centipede. Reference Drawing 20180716IP1 for further details.
- Routine Dielectric Strength Test in accordance with Clause 5.2.2 of EN 60079-5 shall be performed on each lot of Swarco glass beads. Reference Drawing 20180720RS1 for further details.
- Routine Pressure Test in accordance with Clause 5.2.1 of EN 60079-5 shall be performed on each Electronics Box at a pressure of 50kPa for a duration of not less than 10 seconds. No permanent deformation of the enclosure is to exceed 0.5mm in any dimension. Reference Drawing 20180710IP1 for further details.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17]

Specific conditions of use:

- Do not repair flameproof joints.
- The flameproof joints are closed using fasteners with a yield stress $\geq 450 \text{ Nmm}^2$.


[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information



The trademark  will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.