[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: **UL 21 ATEX 2535X Rev. 1**

[4] Product: **ExR-2 Robot Operator and ExR-2 Docking Station**

[5] Manufacturer: **ExRobotics B.V.**

[6] Address: **Effenseweg 1, Breda, 4838BA, 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 **US/UL/ExTR21.0025/01**.

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

EN IEC 60079-0:2018	**EN 60079-1: 2014**	**EN 60079-5:2015**
EN IEC 60079-7:2015/A1:2018	**EN 60079-11:2012**	**EN 60079-18:2015/A1:2017**

[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 q IIB T4 Gb

Certification Manager
Thomas Wilson

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.

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Notified Body UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Accredited by DANAK under registration number 7011 to certification of products.

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[13] [14]

Schedule
EU-TYPE EXAMINATION CERTIFICATE No.
UL 21 ATEX 2535X Rev. 1

[15] Description of Product

The ExR-2 Robot Operator is a remotely operated vehicle that is used to inspect oil and gas facilities. The ExR-2 Docking Station is provided as one method of charging the ExR-2 Robot Operator and is permissible for charging within the Hazardous (Explosive) Atmosphere. The vehicle is constructed of certified components including cameras, lights, motors, and various sensors. The various components are interconnected with certified cable glands and suitable cables.

Temperature range

The ambient temperature range is -40°C … -20°C to 50°C … 55°C.

Electrical data

ExR-2 Docking Station 100V to 240Vac, 1300W max
ExR-2 Robot Operator: Um = 240V, 45Vdc max, 1300W max

Intrinsically safe specifications

U_m : 240 V

Routine tests

- 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.
- Routine Pressure Test in accordance with Clause 5.2.1 of EN 60079-5 shall be performed on each ELE 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.

[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:

- The Dome PTZ, when fitted, may be used only in locations with a low risk of mechanical impact
- Potential electrostatic charging hazard – see instructions
- Do not repair the flameproof joints of robots or any of their components.
- Flameproof joints are closed using fasteners with a yield stress ≥ 450 Nmm^2 except for:
    - The Dome PTZ module, use fasteners with a yield stress of ≥ 640 N/mm^2.
    - Det-tronics hydrocarbon gas module, use fasteners with a yield stress of ≥ 65000 psi (448 N/ mm^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 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.

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