

TYPE EXAMINATION CERTIFICATE



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

- [3] Type Examination Certificate Number: **UL 21 ATEX 2536X Rev. 0**
- [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 equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S certifies that this 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.
- The examination and test results are recorded in confidential report no. **US/UL/ExTR21.0025/00**.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN ISO 80079-36:2016** **EN ISO 80079-37:2016**
- except in respect of those requirements listed at item 18 of the Schedule.
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.
- [12] The marking of the product shall include the following:

 **II 2 G** **Ex h 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: 2021-05-11

Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
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Schedule
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[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 to +55 °C.

Electrical data

ExR -2 Docking Station: 100V to 240Vac, 1300W max

ExR-2 Robot Operator: $U_m = 240V$, 45Vdc max, 1300W max

Intrinsically safe specifications:

U_m : 240 V

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.
- 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 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.

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Descriptive Documents

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

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Special Conditions of Use:

- Follow instructions for installation
- Do not repair the flameproof joints of robots or any of their components.
- Flameproof joints are closed using fasteners with a yield stress $\geq 450 \text{ Nmm}^2$.
- Do not repair robots' electronics boxes or any other components that are not mentioned in the section on Robot Servicing.

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Essential Health and Safety Requirements

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

Additional information

None.