

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CML 20.0056X Page 1 of 3 Certificate history:

R C Marshall

Status: Current Issue No: 0

Date of Issue: 2020-06-01

Applicant: Rotork Controls Ltd.

Brassmill Lane

BA1 3JQ

United Kingdom

Equipment: Remote Hand Station

Optional accessory:

Type of Protection: Flameproof "db", Dust Ignition "tb"

Marking: Ex db IIC T4 Gb

Ex tb IIIC T135°C Db

IP66/IP68 - Only IP6X is endorsed by CML

 $Ta = -**^{\circ}C \text{ to } +**^{\circ}C$

** down to -50°C, up to +70°C

Approved for issue on behalf of the IECEx

Certification Body:

Position: Certification Officer

Signature:

(for printed version)

Date: <u>2020-06-01</u>

- L. This certificate and schedule may only be reproduced in full.
- 2. This certificate is not transferable and remains the property of the issuing body.
- 3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited Unit 1, Newport Business Park New Port Road Ellesmere Port, CH65 4LZ United Kingdom







IECEx Certificate of Conformity

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Date of issue: 2020-06-01 Issue No: 0

Manufacturer: **Rotork Controls Ltd.**

Brassmill Lane

Bath **BA1 3JO**

United Kingdom

Additional manufacturing

locations:

Rotork Controls, Inc. 675 Mile Crossing Blvd

Rochester

NY 14624

United States of America

Rotork UK Ltd.

9 Brown Lane West

Holbeck

Leeds LS12 6BH **United Kingdom**

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017

Edition:7.0

Explosive atmospheres - Part 0: Equipment - General requirements

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" Edition:7.0

Edition:2

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

This Certificate does not indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

GB/CML/ExTR20.0061/00

Quality Assessment Reports:

GB/CML/QAR19.0012/00 GB/CML/QAR20.0010/00

GB/SIR/QAR07.0003/07



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Certificate No.: IECEx CML 20.0056X Page 3 of 3

Date of issue: 2020-06-01 Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Remote Hand Station (RHS) is the electrical enclosure and associated display and control circuitry from a Rotork Actuator incorporated with an appropriate back-housing that includes field wiring facilities so that it can be mounted remotely from an actuator. This allows an operator to monitor and control a Rotork Actuator which is mounted in an inaccessible location.

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for specific conditions of use.

Annex:

IECEx CML 20.0056X Iss. 0 Certificate Annex.pdf

Annexe to: IECEx CML 20.0056X Issue 0

Applicant: **Rotork Controls Limited**

Apparatus: Remote Hand Station



Description

The Remote Hand Station (RHS) is the electrical enclosure and associated display and control circuitry from a Rotork Actuator incorporated with an appropriate back-housing that includes field wiring facilities so that it can be mounted remotely from an actuator. This allows an operator to monitor and control a Rotork Actuator which is mounted in an inaccessible location.

The RHS comprises an electrical control and terminal enclosure attached via a common backhousing casting. The back-housing casting is manufactured in aluminium alloy and provides the back-housing for two electrical enclosures, all of which are designed to satisfy the requirements for flameproof equipment.

The electrical enclosure is formed by a cover which connects to the back-housing casting by means of a spigoted flamepath joint and is secured by four M8 socket cap-head screws. The electrical enclosure can be provided in two lengths, short and extra-short and contains monitoring and control circuitry. At one end of the electrical enclosure a window is provided to allow the observation of an internal LCD device. The window is manufactured from toughened glass and potted into the electrical cover. The electrical enclosure has external, non-penetrative local controls.

The terminal enclosure is formed by a cover which connects to the back-housing casting by means of a spigoted flamepath joint and is secured by three M5 socket cap-head screws. The terminal enclosure provides all electrical field wiring terminals. A single threaded entry point is provided for the installation of a suitable cable entry facility. The volumes of the terminal enclosure and the electrical enclosure are separated by a potted, cable feed-through bushing.

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Unit 1, Newport Business Park New Port Road Ellesmere Port CH65 4LZ



Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. Each Remote Hand Station shall be subject to a routine overpressure test in accordance with IEC 60079-1 clause 16 at the following values:

Routine overpressure tests Tamb -20°C

Equipment	Test Pressure (bar)
With Short Electrical Cover	
Back Housing/Electrical Enclosure - Aluminium Alloy to BS1490, Grade: LM25TF (heat treated) (or equivalent)	13.77
With Extra-Short Electrical Cover	
Back Housing/Electrical Enclosure - Aluminium Alloy to BS1490, Grade: LM25TF (heat treated) (or equivalent)	13.30

Routine overpressure tests Tamb below -20°C

Equipment	Test Pressure (bar)
With Short Electrical Cover	
Back Housing/Electrical Enclosure - Aluminium Alloy to BS1490, Grade: LM25TF (heat treated) (or equivalent)	18.26
With Extra-Short Electrical Cover	
Back Housing/Electrical Enclosure - Aluminium Alloy to BS1490, Grade: LM25TF (heat treated) (or equivalent)	18.48



Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

- i. The Remote Hand Station shall be installed such that the risk of impact to the window is low.
- ii. WARNING There is the risk of potential electrical charging hazard associated with the external non-metallic parts including the coating; see user instructions.
- iii. The grades of the fasteners securing the cover are indicated in the table below, if these fasteners are replaced in service the correct fastener grade must be used:

Location	Grade
Electrical Cover/Back Housing	A4-80 (ISO 3506-1)
Terminal Cover/Back Housing	12.9 (ISO 10642)

iv. In accordance with the requirements of IEC 60079-1 clause 5.1, the critical dimensions of the flamepaths are as follows:

Flamepath	Max. Gap (mm)	Min <i>L</i> (mm)
Electrical Cover/Back Housing	0.15	26.0
Terminal Cover/Back Housing	0.15	12.5
Cable Feed-Through Bush/Back Housing	0.15	25.0