



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: IECEx KDB 18.0004

Issue No: 0

Certificate history:

Issue No. 0 (2018-07-30)

Status: **Current**

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Date of Issue: **2018-07-30**

Applicant: **2RHP Sp. z o.o.**  
ul. Chorzowska 37, 41-709 Ruda Śląska  
**Poland**

Equipment: **REP 1.0 Repeater**

*Optional accessory:*

Type of Protection: **Equipment protection by intrinsic safety "I"**

Marking:  
Ex ia I Ma

*Approved for issue on behalf of the IECEx  
Certification Body:*

mgr inż. Piotr Madej

*Position:*

Head of ExCB

*Signature:  
(for printed version)*

*Date:*

1. 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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**Główny Instytut Górnictwa, Kopalnia Doświadczalna "BARBARA"**  
**(Central Mining Institute Experimental Mine "Barbara")**  
ul. Podleska 72  
43-190 Mikołów  
Poland





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Manufacturer: **2RHP Sp. z o.o.**  
ul. Chorzowska 37, 41-709 Ruda Śląska  
**Poland**

Additional Manufacturing location(s):

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 apparatus 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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-11 : 2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

*This Certificate **does not** indicate compliance with electrical 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:

[PL/KDB/ExTR18.0005/00](#)

Quality Assessment Report:

[PL/OBAC/QAR18.0004/00](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

REP 1.0 Repeater is an integral element of wireless (rescue) communication system designed to operate in underground excavation mines susceptible to firedamp and/or combustible dust.

REP 1.0 can be used to create ad-hoc backbone wireless communication network. When connected with MC1.0 Mediaconverter, it can also be used to create fiber optic network.

Backbone network, created using REP 1.0 Repeaters, enables wireless voice and data transmission between miners'/rescuers' PC 1.0 Personal Communicators and other elements of the system such as M1 Base located underground and, through an existing fiber optic network, with the devices above the ground.

Repeater REP 1.0 also enables connection of other devices equipped with 2.4GHz modem to the system in a telemetric way. The repeater is powered by a dedicated battery pack, which is an integral part of the device. The battery pack can be replaced in explosion hazard zone.

**SPECIFIC CONDITIONS OF USE: NO**

### Annex:

[CoC\\_KDB\\_18\\_0004\\_00\\_Attachment.pdf](#)

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### Data Sheet

Manufacturer: 2RHP Sp. z o.o.  
ul. Chorzowska 37, 41-709 Ruda Śląska, Poland

Equipment: REP1.0 Repeater

Intrinsically safe parameters:

Output parameters:

$U_o = 4,2 \text{ V}$

$I_o = 5,3 \text{ A}$

$P_o = 3,57 \text{ W}$

Lo [mH]	0,076	0,04	0,017	0,009	0,004	0,002	0,001
Co [ $\mu$ F]	314	595	850	850	850	850	850