



# 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 NEM 13.0013X Issue No: 3 Certificate history:  
Status: **Current** Issue No. 3 (2019-04-05)  
Date of Issue: **2019-04-05** Page 1 of 5 Issue No. 2 (2016-09-21)  
Applicant: **Jatronic A/S** Issue No. 1 (2014-03-28)  
Borgeskogen 5 Issue No. 0 (2013-08-16)  
3160 Stokke  
**Norway**

Equipment: **Key Switch and Microphone**  
*Optional accessory:*

Type of Protection: **Ex i**

Marking: Ex ib IIB T4 Gb

Key switch AB40-II GP340, AB40-II GP900:  
U<sub>i</sub>=U<sub>o</sub>: 9V, P<sub>i</sub>=P<sub>o</sub>: 1,3W, C<sub>i</sub>: 433nF, L<sub>i</sub>: 0 (Maximum internal inductance L<sub>i</sub>:Neg. + (Li of the Microphone))  
Output voltage, current and power are equal to input voltage, current and power.

Key switch AB40-II MTP850Ex:  
U<sub>i</sub>=U<sub>o</sub>: 9V, P<sub>i</sub>=P<sub>o</sub>: 1,3W, C<sub>i</sub>: 90nF, L<sub>i</sub>: 0 (Maximum internal inductance L<sub>i</sub>:Neg + (Li of the Microphone))  
Output voltage, current and power are equal to input voltage, current and power.

Key switch AB40-II STP8X:  
U<sub>o</sub>: 6,51V, I<sub>o</sub>: 169mA, P<sub>o</sub>: 274mW, C<sub>o</sub>: 300nF, L<sub>o</sub>: 1,2mH - (80μH from the microphone)  
The key switch can only be used together with Sepura STP8X series TETRA Radio certified in Baseefa12ATEX0002X  
and in accordance to document SPR-DOC-04100 rev. 1, date 02/04/15.

Microphone AB-40 (AB40, AB40 without gooseneck, AB40 with gooseneck and AB40 with gooseneck XLR plug):  
U<sub>i</sub>: 10V, P<sub>i</sub>: 1,3W, C<sub>i</sub>: negligible, L<sub>i</sub>: 80μH, L<sub>i</sub>/R<sub>i</sub>: 0,42μH/Ω

Microphone AB-40 gooseneck with extended cable: U<sub>i</sub>: 10V, P<sub>i</sub>: 1,3W, C<sub>i</sub>: 1,2nF, L<sub>i</sub>: 93μH, L<sub>i</sub>/R<sub>i</sub>: 0,48μH/Ω

Approved for issue on behalf of the IECEx  
Certification Body:

Asle Kaastad

Position:

Certification Manager

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:



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NEMKO  
Gaustadalleen 30  
Oslo N-0314  
Norway





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Manufacturer: **Jatronic A/S**  
Borgeskogen 5  
3160 Stokke  
Norway

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:

[NO/NEM/ExTR13.0011/00](#)  
[NO/NEM/ExTR13.0011/03](#)

[NO/NEM/ExTR13.0011/01](#)

[NO/NEM/ExTR13.0011/02](#)

### Quality Assessment Report:

[NO/NEM/QAR13.0001/00](#)  
[NO/NEM/QAR13.0001/03](#)

[NO/NEM/QAR13.0001/01](#)  
[NO/NEM/QAR13.0001/04](#)

[NO/NEM/QAR13.0001/02](#)



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## Schedule

### EQUIPMENT:

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

Key switch device (foot pedal) for connection to certified intrinsically safe radio transceivers and certified intrinsically safe accessories for instance the microphone AB40. The key switch device is incorporated in a footswitch.

Microphone enclosed in a microphone holder on top of a flexi arm with foot for mounting, without the foot, without the foot but with XLR plug or without foot and flexi arm, and the connection with a plug shall be to a key switch mounted in a separate box.

The key switches AB40-II GP340, AB40-II GP900, AB40-II MTP850Ex and AB40-II STP8X are certified to use together with the microphone AB40. The assembly is designated gas group IIB as an entity.

AB40-II STP8X: The key switch can only be used together with Sepura STP8X series TETRA Radio certified in Baseefa 12ATEX0002X and in accordance to document SPR-DOC-04100 rev. 1, date 02/04/15.

Model variant AB-40 gooseneck microphone with extended cable length of 20m has input parameters:  $U_i$ : 10V,  $P_i$ : 1,3W,  $C_i$ : 1,2nF,  $L_i$ : 93 $\mu$ H,  $L_i/R_i$ : 0,48 $\mu$ H/ $\Omega$

### SPECIFIC CONDITIONS OF USE: YES as shown below:

AB40 without gooseneck and AB40 with gooseneck:

- The free end of the connected cable must be installed such that the terminations are afforded a degree of protection of at least IP20.
- The clearance between the intrinsically safe circuit and a non-intrinsically safe circuit shall be at least 50mm.
- The clearance shall be at least 6mm between separate intrinsically safe circuits.
- The clearance shall be at least 3mm from earthed parts.
- Be according to clause 6.2.1 of IEC 60079-11.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):**

Issue 1: New variant of AB40 with gooseneck and XLR plug. Minor changes of descriptive documents.

Issue 2: New key switch, AB40-II STP 8X, and changed from gasgroup IIC to gasgroup IIB. Minor changes of descriptive documents. Update to the latest standards.

Issue 3: New variant of AB40 with gooseneck and extended cable. Minor changes of descriptive documents.