



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

Certificate No.: **IECEX BVS 15.0121U** issue No.:1

Certificate history:
Issue No. 1 (2017-11-7)
Issue No. 0 (2016-1-15)

Status: **Current**

Date of Issue: **2017-11-07** Page 1 of 5

Applicant: **Friemann & Wolf Batterietechnik GmbH**
Industriestraße 22
63654 Büdingen
Germany

Equipment: **Cell Saft M20 EX SV**
Optional accessory:

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

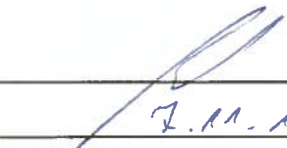
Marking: **Small Ex Component marking**

Approved for issue on behalf of the IECEX Certification Body: **Jörg Koch**

Position: **Head of Certification Body**

Signature:
(for printed version)

Date:


7.11.17

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:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



IECEx Certificate of Conformity

Certificate No.: IECEx BVS 15.0121U

Date of Issue: 2017-11-07

Issue No.: 1

Page 2 of 5

Manufacturer: **Friemann & Wolf Batterietechnik GmbH**
Industriestraße 22
63654 Büdingen
Germany

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 electrical 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:

[DE/BVS/ExTR15.0111/01](#)

Quality Assessment Report:

[DE/BVS/QAR13.0006/03](#)



IECEX Certificate of Conformity

Certificate No.: IECEx BVS 15.0121U

Date of Issue: 2017-11-07

Issue No.: 1

Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

General product information:

Cell type Saft M20 EX SV

There are six different variants of the cell type Saft M20 EX SV. The different part numbers and configurations are not relevant for intrinsic safety.

Cell designation	Part Number	Tab configuration
Saft M20 EX SV KP/S	414 2187 103	Positive and negative end caps
Saft M20 EX SV /T	414 4180 203	+/- tab in C-configuration
Saft M20 EX SV /T/Z	414 4180 703	+/- tab in Z-configuration
Saft M20 EX SV K/+T	414 2180 403	Only +tab with endcap
Saft M20 EX SV K/T	414 2180 203	+/- tab in C-configuration with endcap
Saft M20 EX SV K/T/Z	414 2180 703	+/- tab in Z-configuration with endcap

The cell type Saft M20 EX SV is a lithium-manganese dioxide (Li-MnO₂) cell and contains spirally wound electrodes with a separator between them. The cell type is produced as variants B and C. This component should not be brought without any additional safety elements in a potentially explosive atmosphere.

Technical parameters

Nominal voltage	U ₀ = 3.0 V
Rated capacity	12.4 Ah at 150 mA

SPECIFIC CONDITIONS OF USE: NO



IECEx Certificate of Conformity

Certificate No.: IECEx BVS 15.0121U

Date of Issue: 2017-11-07

Issue No.: 1

Page 4 of 5

EQUIPMENT(continued):

Schedule of Limitations:

1. This component should not be brought without any additional safety elements in a potentially explosive atmosphere.
2. The combination of the cell and the safety elements must be tested and certified.
3. For the temperature class T4 this cell is intended for use in a temperature range at the mounting location from -40 °C to +72 °C.
4. Operating Instructions Saft M20 EX SV Cell



IECEX Certificate of Conformity

Certificate No.: IECEx BVS 15.0121U

Date of Issue: 2017-11-07

Issue No.: 1

Page 5 of 5

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

The construction of the cell type Saft M20 EX SV was slightly modified.