

INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

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

Certificate No.: **IECEx BVS 20.0048X** Page 1 of 6 Certificate history:

Status: Current Issue No: 1

Date of Issue: 2023-02-14

Applicant: **BARTEC GmbH**

Max-Eyth-Staße 16 97980 Bad Mergentheim

Germany

Equipment: APC -APEX resp. SPC - SILAS Pressurized Cabinet type *7-3704-****/****

Optional accessory:

Intrinsic safety "i"; Pressurized enclosure "p" Type of Protection:

Marking: APC - APEX Pressurized Cabinet type *7-3704-****/****

Ex pxb/pyb * IIC T5-T3 Gb

Ex pxb/pyb * IIIC T95°C-T130°C Db

SPC - SILAS Pressurized Cabinet type *7-3704-****/****

Ex pzc ** IIC T5-T3 Gc Ex pzc ** IIIC/IIIB T95°C-T130°C Dc

* Optional the marking can be amplified with the following types of protection db, eb, ib, mb, op is, qb, [ia Ga/Da] and/ or [ib Gb/Db]) for using separately certified components.

** Optional the marking can be amplified with the following types of protection dc, ec, ib, ic, mc, op is, qc, [ia *a], [ib *b]

Dr Franz Eickhoff

and/or [ic *c]) for using separately certified components.

Approved for issue on behalf of the IECEx

Certification Body:

Position: Senior Lead Auditor, Certification Manager and officially recognised expert

Signature:

(for printed version)

(for printed version)

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Issue 0 (2020-08-03)

Certificate issued by:

DEKRA Testing and Certification GmbH

Certification Body Dinnendahlstrasse 9 44809 Bochum Germany





Certificate No.: IECEx BVS 20.0048X Page 2 of 6

Date of issue: 2023-02-14 Issue No: 1

Manufacturer: BARTEC GmbH

Max-Eyth-Staße 16 97980 Bad Mergentheim

Germany

Manufacturing

locations:

BARTEC GmbH

Max-Eyth-Staße 16 97980 Bad Mergentheim

Germany

BARTEC TECHNOR AS

Dusavikveien 39 4001 Stavanger

Norway

BARTEC Pte Ltd

63 Hillview Avenue

#07-18 to #07-/23 Lam Soon Industrial

Building

Singapore 669569 Singapore

See following pages for more locations

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

Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

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

Edition:6.0

IEC 60079-2:2014-07 Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"

Edition:6

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:

DE/BVS/ExTR20.0044/01

Quality Assessment Reports:

DE/TUN/QAR06.0017/14 NL/DEK/QAR11.0034/06 NL/DEK/QAR12.0061/09 NO/NEM/QAR07.0003/13

NL/DEK/QAR12.0059/07



Certificate No.: IECEx BVS 20.0048X Page 3 of 6

Date of issue: 2023-02-14 Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and Type

APC – APEX resp. SPC – SILAS Pressurized Cabinet type *1)7-3704 *2)*3)*4)*5)/****6)

1) product marking

0 = APC - APEX Pressurized Cabinet

A = SPC - SILAS Pressurized Cabinet

²⁾ use

1 = EPL Gb / Db | EPL Gc / Dc

2 = EPL Gb | EPL Gc

3 = EPL Db | EPL Dc

3) Ex p system

1 = Ex pyb | Ex pzc

2 = Ex pxb

4) size of pressurized enclosure

1 =Size I to 50 dm^3

2 =Size II over $50 \text{ dm}^3 \text{ to } 150 \text{ dm}^3$

3 =Size III over 150 dm 3 to 300 dm 3

 $4 = \text{Size IV over } 300 \text{ dm}^3 \text{ to } 700 \text{ dm}^3$

 $5 = \text{Size V over } 700 \text{ dm}^3 \text{ to } 1440 \text{ dm}^3$

 $6 = \text{Size VI over } 1440 \text{ dm}^3 \text{ to } 5405 \text{ dm}^3$

 $7 = \text{Size VII over } 5405 \text{ dm}^3 \text{ to } 9370 \text{ dm}^3$

 $8 = \text{Size VIII over } 9370 \text{ dm}^3 \text{ to } 13365 \text{ dm}^3$

9 = Size IX over 13365 dm^3 to 17300 dm^3

5) material pressurized cabinet

1 = sheet steel, coated

2 = stainless steel

3 = aluminium (separate certified)

4 = plastic (separate certified)

no influence on explosion protection

Description

The APC-APEX Pressurized Cabinet type 07-3704-****/**** is a cabinet-system which is protected by pressurized enclosure "p" for zone 1/21. It consists of a cabinet with a control unit, pressure regulator with pressure gauge, digital purge valve and / or a proportional purge valve. The cabinet-system can be built in nine different enclosure sizes.

The BARTEC Ex p control unit APC (IECEX BVS 19.0038X) in combination with Ex p control unit APEX (IECEX BVS 19.0032U) will be used. Alternatively the Ex p control unit APEX

(IECEx BVS 19.0032U) can be mounted directly into the Ex p housing.

Optionally following parts can be part of the pressurized cabinet:

- · Safety glass window
- Safety foil
- Operating and viewing panels with or without touch function (Touch with a barrier in equipment protection by intrinsic safety "ib")
- Actuating elements (e.g. pushbutton, lamp modules, and / or illuminated button)
- Keyboards in two variants. Keyboard with metal front or keyboard with front foil and a barrier in equipment protection by intrinsic safety
 "ib"
- · Direct installation of Ex components in the Ex p housing, which are certified separately

SPECIFIC CONDITIONS OF USE: YES as shown below:

The specification of use for the separately certified equipment have to be observed by the user.



Certificate No.: IECEx BVS 20.0048X Page 4 of 6

Date of issue: 2023-02-14 Issue No: 1

Equipment (continued):

• The SPC – SILAS Pressurized Cabinet type A7-3704-****/**** is a cabinet-system which is protected by pressurized enclosure "p" for zone 2/22. It consists of a cabinet with a control unit, pressure regulator with pressure gauge, digital purge valve. The cabinet-system can be built in nine different enclosure sizes.

The BARTEC Ex p control unit SILAS (IECEx BVS 19.0038X) in combination with Ex p control unit SILAS (IECEX BVS 19.0032U) or BARTEC Ex p control unit SILAS (TÜV 09 ATEX 553359) will be used. Alternatively the Ex p control unit APEX (IECEx BVS 19.0032U) can be mounted directly into the Ex p housing.

Optionally following parts can be part of the pressurized cabinet:

- · Safety glass window
- · Safety foil
- · Operating and viewing panels with or without touch function (Touch with a barrier in equipment protection by intrinsic safety "ib")
- Actuating elements (e.g. pushbutton, lamp modules, and / or illuminated button)
- Keyboards in two variants. Keyboard with metal front or keyboard with front foil and a barrier in equipment protection by intrinsic safety "ib" or "ic"
- · Direct installation of Ex components in the Ex p housing, which are certified separately

Parameters

 $\begin{array}{lll} \mbox{Nominal voltage} & \mbox{max. 10 kV} \pm \mbox{10 \%} \\ \mbox{Nominal current} & \mbox{max. 10 kA} \\ \mbox{Cabinet volume} & \mbox{max. 17300 dm}^{3} \end{array}$

IP-protection ≥ IP 4x

Ambient temperature max. -55 $^{\circ}$ C ... +70 $^{\circ}$ C (T3 – T5) (depends on the used empty enclosure and mounting equipment) -20 $^{\circ}$ C ... +40 $^{\circ}$ C (T6)

Purging gas pre compression 1 ... 25 bar

Service pressure 2 ... 4 mbar (or 50 ... 200 mbar) (depends on the application)

Purging pressure 1 ... 20 mbar Minimum overpressure 0.8 mbar



Certificate No.: IECEX BVS 20.0048X Page 5 of	Certificate No.:	IECEx BVS 20.0048X	Page 5 of 6
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Date of issue: 2023-02-14 Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Alternatively, a slotprinter can be used.
- Alternatively, separately certified devices can be used.



Certificate No.: IECEx BVS 20.0048X Page 6 of 6

Date of issue: 2023-02-14 Issue No: 1

Additional manufacturing locations:

BARTEC NEDERLAND B.V.

Boelewerf 25 2987 VD Ridderkerk **Netherlands** BARTEC Explosion Proof Appliances (Shanghai) Co., Ltd.

New Building 7

No 188 Xinjung Ring Rd. Caoheijing Pujiang Hi-tech park Minhang District, Shanghai **China**