



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 UL 16.0160

Issue No: 1

Certificate history:

[Issue No. 1 \(2018-10-30\)](#)

[Issue No. 0 \(2017-01-09\)](#)

Status: **Current**

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Date of Issue: **2018-10-30**

Applicant: **BARTEC GmbH**
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Equipment: **Intrinsically Safe Tablet Computer - Agile X IS, Type 17-A1B*-****/*******

Optional accessory:

Type of Protection: **Intrinsic Safety "ia" and Optical Radiation "op is"**

Marking:

Ex ia op is IIC T4 Ga

Ex ia op is IIC T4 Gb

Ex ia op is I Ma

Ex ia op is I Mb

-20°C ≤ Ta ≤ +50°C

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

Katy A. Holdredge

Position:

Senior Staff Engineer

*Signature:
(for printed version)*

Date:

2018-10-30

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](#).

Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





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Manufacturer: **BARTEC GmbH**
Max-Eyth-Straße 16
97980 Bad Mergentheim
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 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

IEC 60079-28 : 2015 Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

*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:

[US/UL/ExTR16.0185/01](#)

Quality Assessment Report:

[DE/TUN/QAR06.0017/10](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The device covered by this certificate is a handheld tablet computer with touch screen. It is powered by a non-replaceable, rechargeable, internal battery and an optional, replaceable external battery pack. Connection facilities are provided for a USB stick, an SD card, a SIM card, and other external accessories. The device may be configured with a RFID/NFC reader and/or a laser barcode scanner.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: NO



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

Issue 1: Added alternative enclosure material, Group I certification and intrinsic safety entity parameters to various external ports. Revised nomenclature to designate Group I models, increased the ingress protection to IP65, various minor electrical and mechanical changes.

Annex:

[Annex to IECEx UL 16.0160 Issue 1.pdf](#)



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TYPE DESIGNATION

Nomenclature for "Agile X IS" Tablet PC, Type 17-A1B*_****_*****.

Type 17- A1B *_****/***** (Certification)

3 or 4 or A – Group II, Zone 1 Certified – Ex ia op is IIC T4 Gb

5 or 6 or B – Group II, Zone 0 Certified – Ex ia op is IIC T4 Ga

C – Groups I and II, Zone 1 Certified – Ex ia op is IIC T4 Gb, Ex ia op is I Mb

D – Groups I and II, Zone 0 Certified – Ex ia op is IIC T4 Ga, Ex ia op is I Ma

E – Group I, Zone 1 Certified – Ex ia op is I Mb

F – Group I, Zone 0 Certified – Ex ia op is I Ma

Type 17- A1B *_****/***** (Display)

1 – 10" Capacitive

Type 17- A1B *_****/***** (WAN Carriers)

0 – None

1 or 2 – 4G/LTE

Type 17- A1B *_****/***** (Operating System)

0-9 – Functions not affecting construction

Type 17- A1B *_****/***** (Processor)

0-9 – Functions not affecting construction

Type 17- A1B *_****/***** (Memory)

0-9 – Functions not affecting construction

Type 17- A1B *_****/***** (Memory)

0-9 – Functions not affecting construction

Type 17- A1B *_****/***** (Camera)

0 – None

1 – 5MP Rear, 2MP Front

Type 17- A1B *_****/***** (External Battery)

0 – None

1 – 7.4V / 4200mAh

Type 17- A1B *_****/***** (Data Acquisition)

0 – None

1 – RFID HF/NFC

Type 17- A1B *_****/***** (Scanner)

0 – None

1 – 1D/2D-Imager SE4500

Type 17- A1B *_****/***** (Customer variants)

A-Z/0-9 – Customer Variants not affecting construction

PARAMETERS RELATING TO THE SAFETY

Powered by internal battery rated 7.4V, 4200mAh, and optional external battery pack, BARTEC Type 17-A1Z0-0006 rated 7.4V, 4200mAh. The external battery pack may be replaced in a hazardous location.

$U_m = 25V$ for the DCin jack and Docking Connector, which may not be used in a hazardous location.



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Accessories:

The device may be used with the following BARTEC accessories, which are included as part of this certification:

- Type 17-A1Z0-0007 USB Memory Stick. Alternatively, the USB Port has the following intrinsic safety entity parameters:

USB Port:	U ₀ = 6.07V			
	I ₀ = 4.46A			
	P ₀ = 2.15W			
	Co = 28μF	Co = 12μF	Co = 9μF	Co = 6.9μF
	Lo = 2μH	Lo = 5μH	Lo = 7μH	Lo = 9μH

- Type 17-A1Z0-00** SD Memory Card, where ** is 08, 09, or 10. Alternatively, the SD Card Port has the following intrinsic safety entity parameters:

SD Card Port:	U ₀ = 4.63V
	I ₀ = 2.76A
	P ₀ = 1.18W
	Co = 79μF
	Lo = 2μH

- Expansion Port – The Expansion Port has the following intrinsic safety entity parameters. Under this certificate, the Agile X IS has been subjected to additional mechanical tests with the BARTEC Model 17-A1Z0-0005 HART Module connected. The Model 17-A1Z0-0005 HART Module is certified under IECEx EPS 15.0065X.

Expansion Port:	U ₀ = 8.11V	
	I ₀ = 5.69A	
	P ₀ = 8.04W	
	Co = 7.6μF	Co = 5.3μF
	Lo = 2μH	Lo = 5μH



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MARKING

Marking has to be readable and indelible; it has to include the following indications:

TABLET-PC – Type 17-A1B3-*****/*****

Agile X IS - Type: 17-A1B3-*****/*****

 II 2 G Ex ia op is IIC T4 Gb
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Gb
IECEx UL16.0160
-20°C ≤ Ta ≤ +50°C; IP65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A1Z0-0006 / USB-Stick - No. 17-A1Z0-0007
and Micro SD cards - No. 17-A1Z0-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants :
lot de batteries – réf. 17-A1Z0-0006 / clé USB – réf. 17-A1Z0-0007
et cartes MicroSD – réf. 17-A1Z0-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).
AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1B4-*****/*****

Agile X IS - Type: 17-A1B4-*****/*****

 II 2 G Ex ia op is IIC T4 Gb
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Gb
IECEx UL16.0160
Class I, Division 1, Groups A, B, C, and D; T4
Class I, Zone 1, AEx ia IIC T4 Gb; Ex ia IIC T4 Gb
-20°C ≤ Ta ≤ +50°C; IP65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A1Z0-0006 / USB-Stick - No. 17-A1Z0-0007
and Micro SD cards - No. 17-A1Z0-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants :
lot de batteries – réf. 17-A1Z0-0006 / clé USB – réf. 17-A1Z0-0007
et cartes MicroSD – réf. 17-A1Z0-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).
AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1B5-****/*****

Agile X IS - Type: 17-A1B5-****/*****

 II 1 G Ex ia op is IIC T4 Ga
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Ga
IECEx UL16.0160

-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A120-0006 / USB-Stick - No. 17-A120-0007
and Micro SD cards - No. 17-A120-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants :
lot de batteries – réf. 17-A120-0006 / clé USB – réf. 17-A120-0007
et cartes MicroSD – réf. 17-A120-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).
AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1B6-****/*****

Agile X IS - Type: 17-A1B6-****/*****

 II 1 G Ex ia op is IIC T4 Ga
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Ga
IECEx UL16.0160
Class I, Division 1, Groups A, B, C, and D; T4
Class I, Zone 0, AEx ia IIC T4 Ga; Ex ia IIC T4 Ga

-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A120-0006 / USB-Stick - No. 17-A120-0007
and Micro SD cards - No. 17-A120-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants :
lot de batteries – réf. 17-A120-0006 / clé USB – réf. 17-A120-0007
et cartes MicroSD – réf. 17-A120-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).
AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1BA-****/*****

Agile X IS - Type: 17-A1BA-****/*****

II 2 G Ex ia op is IIC T4 Gb
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Gb
IECEx UL16.0160
Class I, Division 1, Groups A, B, C, and D;
Class II, Division 1, Groups E, F and G; Class III; T4
Class I, Zone 1, AEx ia IIC T4 Gb; Ex ia IIC T4 Gb

-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A120-0006 / USB-Stick - No. 17-A120-0007
and Micro SD cards - No. 17-A120-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001

Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants:
lot de batteries – réf. 17-A120-0006 / clé USB – réf. 17-A120-0007
et cartes MicroSD – réf. 17-A120-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.

Read user manual before use (11-A1B4-7D0001).

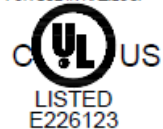
AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1BB-****/*****

Agile X IS - Type: 17-A1BB-****/*****

II 1 G Ex ia op is IIC T4 Ga
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Ga
IECEx UL16.0160
Class I, Division 1, Groups A, B, C, and D;
Class II, Division 1, Groups E, F and G; Class III; T4
Class I, Zone 0, AEx ia IIC T4 Ga; Ex ia IIC T4 Ga

-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A120-0006 / USB-Stick - No. 17-A120-0007
and Micro SD cards - No. 17-A120-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001

Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants:
lot de batteries – réf. 17-A120-0006 / clé USB – réf. 17-A120-0007
et cartes MicroSD – réf. 17-A120-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.

Read user manual before use (11-A1B4-7D0001).

AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1BC-****/*****

Agile X IS - Type: 17-A1BC-****/*****

 II 2 G Ex ia op is IIC T4 Gb
I M2 Ex ia op is I Mb
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Gb
Ex ia op is I Mb
IECEx UL16.0160
Class I, Division 1, Groups A, B, C, and D;
Class II, Division 1, Groups E, F and G; Class III; T4
Class I, Zone 1, AEx ia IIC T4 Gb; Ex ia IIC T4 Gb
-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A120-0006 / USB-Stick - No. 17-A120-0007
and Micro SD cards - No. 17-A120-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants:
lot de batteries – réf. 17-A120-0006 / clé USB – réf. 17-A120-0007
et cartes MicroSD – réf. 17-A120-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).

AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1BD-****/*****

Agile X IS - Type: 17-A1BD-****/*****

 II 1 G Ex ia op is IIC T4 Ga
I M1 Ex ia op is I Ma
DEMKO 16 ATEX 1803
Ex ia op is IIC T4 Ga
Ex ia op is I Ma
IECEx UL16.0160
Class I, Division 1, Groups A, B, C, and D;
Class II, Division 1, Groups E, F and G; Class III; T4
Class I, Zone 0, AEx ia IIC T4 Ga; Ex ia IIC T4 Ga
-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A120-0006 / USB-Stick - No. 17-A120-0007
and Micro SD cards - No. 17-A120-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants:
lot de batteries – réf. 17-A120-0006 / clé USB – réf. 17-A120-0007
et cartes MicroSD – réf. 17-A120-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).

AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1BE-****/*****

Agile X IS - Type: 17-A1BE-****/*****

I M2 Ex ia op is I Mb
DEMKO 16 ATEX 1803
Ex ia op is I Mb
IECEx UL16.0160

-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A1Z0-0006 / USB-Stick - No. 17-A1Z0-0007
and Micro SD cards - No. 17-A1Z0-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants:
lot de batteries – réf. 17-A1Z0-0006 / clé USB – réf. 17-A1Z0-0007
et cartes MicroSD – réf. 17-A1Z0-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).
AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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TABLET-PC – Type 17-A1BF-****/*****

Agile X IS - Type: 17-A1BF-****/*****

I M1 Ex ia op is I Ma
DEMKO 16 ATEX 1803
Ex ia op is I Ma
IECEx UL16.0160

-20°C ≤ Ta ≤ +50°C; IP 65

Intrinsically safe when used with BARTEC
battery pack - No. 17-A1Z0-0006 / USB-Stick - No. 17-A1Z0-0007
and Micro SD cards - No. 17-A1Z0-0008/-0009/-0010
and other accessories per manual 11-A1B4-7D0001
Sécurité intrinsèque assurée par l'emploi des produits BARTEC suivants:
lot de batteries – réf. 17-A1Z0-0006 / clé USB – réf. 17-A1Z0-0007
et cartes MicroSD – réf. 17-A1Z0-0008/-0009/-0010
et autres accessoires indiqués dans le manuel 11-A1B4-7D0001

WARNING: Do not charge battery or use docking connector in a hazardous area. Um = 25V.
Read user manual before use (11-A1B4-7D0001).
AVERTISSEMENT: Ne pas recharger la batterie ou utiliser une station d'accueil en zone dangereuse. Um = 25V.
Lire attentivement le mode d'emploi avant toute utilisation (11-A1B4-7D0001).

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