



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx PTB 13.0043X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 3 Issue 2 (2016-04-11)  
Date of Issue: 2019-04-24 Issue 1 (2015-09-08)  
Issue 0 (2014-01-27)  
Applicant: **BARTEC GmbH**  
Max-Eyth-Straße 16  
97980 Bad Mergentheim  
Germany  
Equipment: **Mobile Computer type series MC92N0ex 17-A1A3-\*\*\*\*/\*\*\*\*\***  
Optional accessory:  
Type of Protection: **General Requirements, Powder Filling "q", Intrinsic Safety "i", Protection of equipment and transmission systems using optical radiation**

Marking:

Mobile Computer MC92N0ex type series	Marking
17-A1A3-***0/*****, 17-A1A3-R**2/*****, 17-A1A3-R**4/*****, 17-A1A3-R**5/*****, 17-A1A3-R**6/*****	II 2 G Ex q op is [ib] IIC T4 Gb
17-A1A3-R**1/*****, 17-A1A3-R**3/*****, 17-A1A3-R**A/*****, 17-A1A3-R**B/*****	II 2 G Ex q [ib] IIC T4 Gb
17-A1A3-R**7/*****, 17-A1A3-R**8/*****	II 2 G Ex q op is [ib] IIB T4 Gb
17-A1A3-R**C/*****, 17-A1A3-R**D/*****	II 2 G Ex q [ib] IIB T4 Gb

Approved for issue on behalf of the IECEx  
Certification Body:

**Dr.-Ing. Frank Lienesch**

Position:

**Department Head "Explosion Protection in Sensor Technology  
and Instrumentation"**

Signature:  
(for printed version)

Date:

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Certificate issued by:

**Physikalisch-Technische Bundesanstalt (PTB)**  
Bundesallee 100  
38116 Braunschweig  
Germany





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

Additional  
manufacturing  
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 60079-0:2011** 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

**IEC 60079-5:2015** Explosive atmospheres –Part 5: Equipment protection by powder filling “q”  
Edition:4.0

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/PTB/ExTR14.0001/03](#)

Quality Assessment Report:

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



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**EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The mobile computers type series MC92N0ex 17-A1A3-\*\*\*\*/\*\*\*\*\* are hand-held electrical apparatus. They are used for the mobile acquisition, processing and radio transmission of data inside the hazardous area. They are used in hazardous areas where equipment group II, EPL Gb is required. If the screen protector type 17-A1Z0-0003 is used as an option, the mobile computer is classified into gas group IIB.

Further details see annex.

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

Details of specific conditions of use see annex.



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

Updating of the standard IEC 60079-5:2015. Inclusion of standard IEC 60079-28:2015 to the test specification. Adaptation of the marking. Extension of the electrical data with the inclusion of Micro SD-cards and the extension of the available batteries in the battery pack. Further changes concern the internal structure.

**Annex:**

Annex to [Annex IECEx-PTB-130043X-3.pdf](#)



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

Electrical Apparatus: Mobile Computer MC92N0ex type series 17-A1A3-\*\*\*\*/\*\*\*\*\*

The mobile computers MC92N0ex type series 17-A1A3-\*\*\*\*/\*\*\*\*\* are hand-held electrical apparatus. They are used for the mobile acquisition, processing and radio transmission of data inside the hazardous area. They are used in hazardous areas where equipment group II, EPL Gb are required.

If the screen protector type 17-A1Z0-0003 is used as an option, the mobile computer is classified into gas group IIB.

The relationship between the marking and the mobile computer type is shown in the following table:

Mobile Computer MC92N0ex type series	Marking
17-A1A3-***0/*****, 17-A1A3-R**2/*****, 17-A1A3-R**4/*****, 17-A1A3-R**5/*****, 17-A1A3-R**6/*****	 II 2 G Ex q op is [ib] IIC T4 Gb
17-A1A3-R**1/*****, 17-A1A3-R**3/*****, 17-A1A3-R**A/*****, 17-A1A3-R**B/*****	 II 2 G Ex q [ib] IIC T4 Gb
17-A1A3-R**7/*****, 17-A1A3-R**8/*****	 II 2 G Ex q op is [ib] IIB T4 Gb
17-A1A3-R**C/*****, 17-A1A3-R**D/*****	 II 2 G Ex q [ib] IIB T4 Gb



Type key:

Type-No.	17	-	A	1	A	3	-	*	*	*	*	/	*	*	*	*	*	*	*	
Digit- No	A		B	C	D	E		F	G	H	I		J	K	L	M	N	O	P	Q

Explanations of digits:

Digit	Digit for:	Variations:	Description
A	Product range	17	Electronic device
B	Device group	A	Data capture
C	Ex-Protection	1	Ex I and/or Ex II Category 2/Div 1
D	Type	A	MC 92 Series
E	Certificate	3	ATEX / IECEx Zone 1
F	WAN	0 R	without Reader
G	Version	G K	Gun Brick
H	Scan engine	0 3 5 8 A J	without Blockbuster Imager (SE4500-SR) Blockbuster Imager (SE4500-HD) Blockbuster Imager (SE4500-DL) Standard Range Scan Engine (SE965) Long Range Scan Engine (LORAX, SE1524)
I	Reader	0 1 2 3 4 5 6 7 8 A B C D	without RFID LF int. Module RFID LF ext. Module RFID HF int. Module RFID HF ext. Module RFID UHF [US] ext. Module RFID UHF [EU] ext. Module RFID UHF [US] ext. Module with ext. antenna RFID UHF [EU] ext. Module with ext. Antenna RFID UHF [US] int. Module RFID UHF [EU] int. Module RFID UHF [US] int. Module with ext. Antenna RFID UHF [EU] int. Module with ext. Antenna
0	Display	S	Color VGA
K, L, M, N, O, P, Q	Digits without influence to explosion protection		



Electrical data

Supply

in type of protection Intrinsic Safety Ex ib IIC  
for mobile computer MC92N0ex type series  
17-A1A3-\*\*\*0/\*\*\*\*\*, 17-A1A3-R\*\*1/\*\*\*\*\*  
17-A1A3-R\*\*2/\*\*\*\*\*, 17-A1A3-R\*\*3/\*\*\*\*\*  
17-A1A3-R\*\*4/\*\*\*\*\*, 17-A1A3-R\*\*5/\*\*\*\*\*  
17-A1A3-R\*\*6/\*\*\*\*\*, 17-A1A3-R\*\*A/\*\*\*\*\*  
17-A1A3-R\*\*B/\*\*\*\*\*

in type of protection Intrinsic Safety Ex ib IIB  
for mobile computer MC92N0ex type series  
17-A1A3-R\*\*7/\*\*\*\*\*, 17-A1A3-R\*\*8/\*\*\*\*\*  
17-A1A3-R\*\*C/\*\*\*\*\*, 17-A1A3-R\*\*D/\*\*\*\*\*

only from the appropriate battery type 17-A1Z0-0001  
7,4 V, 2200 mAh or 2400 mAh  
7,2 V, 2880 mAh

Headset-connector  
(microphon + loudspeaker)

in type of protection Intrinsic Safety Ex ib IIC  
for mobile computer MC92N0ex type series  
17-A1A3-\*\*\*0/\*\*\*\*\*, 17-A1A3-R\*\*1/\*\*\*\*\*  
17-A1A3-R\*\*2/\*\*\*\*\*, 17-A1A3-R\*\*3/\*\*\*\*\*  
17-A1A3-R\*\*4/\*\*\*\*\*, 17-A1A3-R\*\*5/\*\*\*\*\*  
17-A1A3-R\*\*6/\*\*\*\*\*, 17-A1A3-R\*\*A/\*\*\*\*\*  
17-A1A3-R\*\*B/\*\*\*\*\*

in type of protection Intrinsic Safety Ex ib IIB  
for mobile computer MC92N0ex type series  
17-A1A3-R\*\*7/\*\*\*\*\*, 17-A1A3-R\*\*8/\*\*\*\*\*  
17-A1A3-R\*\*C/\*\*\*\*\*, 17-A1A3-R\*\*D/\*\*\*\*\*

Maximum values:

$$U_o = 8,6 \text{ V}$$

$$\Sigma I_o = 354 \text{ mA}$$

$$P_o = 479 \text{ mW}$$

characteristic linear

$C_i$  and  $L_i$  are negligibly small

Maximum values of together occurring reactances:  
(acc. ISPART 6.0)

$$C_o = 930 \text{ nF}$$

$$L_o = 460 \text{ }\mu\text{H}$$



**SD-memory cards**

in type of protection Intrinsic Safety Ex ib IIC  
for mobile computer MC92N0ex type series  
17-A1A3-\*\*\*0/\*\*\*\*\*, 17-A1A3-R\*\*1/\*\*\*\*\*,  
17-A1A3-R\*\*2/\*\*\*\*\*, 17-A1A3-R\*\*3/\*\*\*\*\*,  
17-A1A3-R\*\*4/\*\*\*\*\*, 17-A1A3-R\*\*5/\*\*\*\*\*,  
17-A1A3-R\*\*6/\*\*\*\*\*, 17-A1A3-R\*\*A/\*\*\*\*\*,  
17-A1A3-R\*\*B/\*\*\*\*\*

in type of protection Intrinsic Safety Ex ib IIB

for mobile computer MC92N0ex type series  
17-A1A3-R\*\*7/\*\*\*\*\*, 17-A1A3-R\*\*8/\*\*\*\*\*,  
17-A1A3-R\*\*C/\*\*\*\*\*, 17-A1A3-R\*\*D/\*\*\*\*\*

SD memory cards 17-28BE-F006/xxxx may be used in  
the SD memory card holder, e.g.:

512	MB	Art.Nr. 17-28BE-F006/0001
1	GB	Art.Nr. 17-28BE-F006/0002
2	GB	Art.Nr. 17-28BE-F006/0003
4	GB	Art.Nr. 17-28BE-F006/0004
8	GB	Art.Nr. 17-28BE-F006/0005
16	GB	Art.Nr. 17-28BE-F006/0006
32	GB	Art.Nr. 17-28BE-F006/0007

Micro SD memory cards types 17-A1Z0-0008/xxxx,  
17-A1Z0-0008, 17-A1Z0-0009 and 17-A1Z0-0010 may  
be used in the Micro SD memory card holder, e.g.:

512	MB	Art.Nr. 17-A1Z0-0008/0001
1	GB	Art.Nr. 17-A1Z0-0008/0002
2	GB	Art.Nr. 17-A1Z0-0008/0003
4	GB	Art.Nr. 17-A1Z0-0008/0004
8	GB	Art.Nr. 17-A1Z0-0008
16	GB	Art.Nr. 17-A1Z0-0009
32	GB	Art.Nr. 17-A1Z0-0010

WLAN / Bluetooth

radiated transmitter power 210 mW

HF-output power

radiated transmitter power max. 2 W





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Special conditions for safe use

1. If the screen protector type 17-A1Z0-0003 is used as an option, the mobile computer shall only be operated in hazardous areas in gas group IIB.
2. The battery type 17-A1Z0-0001 shall be charged outside the hazardous area only.
3. The exchange of keyboard and SD/micro SD memory card shall only be performed outside of the hazardous area – (see notes in the manual).
4. The mobile computer MC92N0ex type series 17-A1A3-\*\*\*\*/\*\*\*\*\* shall not be used in strong charge-generating processes. These can occur e.g. during electrostatic painting, in pneumatically conveyed dust, flowing liquids and droplets, mechanically driven belts, brushes and foils etc.