





Translation

EC-Type Examination Certificate

- (1)
- (2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use
in potentially explosive atmospheres
- (3) **BVS 05 ATEX E 113 X**
- (4) **Equipment: Signal horn type 07- 4602-1*1***
- (5) **Manufacturer: BARTEC GmbH**
- (6) **Address: 97980 Bad Mergentheim, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the schedule to this type examination certificate.
- (8) The certification body of EXAM BBG Prüf- und Zertifizier GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in the test and assessment report BVS PP 05.2086 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
EN 50014:1997 + A1 – A2 General requirements
EN 50019:2000 Increased safety "e"
EN 50028:1987 Encapsulation "m"
EN 50281-1-1:1998+A1 Dust explosion protection
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate
- (12) The marking of the equipment shall include the following:

| | | |
|---|---------------------------|--------------------|
|  | II 2G EEx m II T5 | Type 07- 4602-1*11 |
|  | II 2G EEx me II T5 | Type 07- 4602-1*12 |
| | II 2D IP65 T 70 °C | |

EXAM BBG Prüf- und Zertifizier GmbH

Bochum, dated 15. August 2005

Signed: Dr. Jockers

Certification body

Signed: Dr. Eickhoff

Special services unit

(13) Appendix to

(14) **EC-Type Examination Certificate**

BVS 05 ATEX E 113 X

(15) 15.1 Subject and type

Signal horn type 07- 4602-1*1*

| | | |
|---|-----|--|
| ┌ | 1 = | version with sound outlet, type of protection „m” |
| | 2 = | version with flat housing , type of protection „me” and dust |
| └ | 1 = | DC 24 V |
| | 2 = | AC 24 V |
| | 3 = | AC 42... 48 V |
| | 4 = | AC 115, 120 V |
| | 5 = | AC 230 V |

15.2 Description

The signal horn type 07- 4602-1*1* consists of an electromagnetic vibrating system, in which the armatur coil serves as the vibrating mass and is mounted at the membrane. The movement of the membrane and the noise caused by the armatur hitting the core produce the sound of the signal horn.

The signal horn type 07- 4602-1*11 meets category 2G (type of protection EEx m),
 Type 07- 4602-1*12 meets category 2G (type of protection EEx me) and category 2D.

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 Type 07- 4602-111*

| | | | |
|----------------------|----|-----|----|
| voltage | DC | 24 | V |
| current | | 350 | mA |
| upstream fuse (fast) | | 500 | mA |

15.3.1.2 Type 07- 4602-121*

| | | | |
|----------------------|----|-----|----|
| voltage | AC | 24 | V |
| frequency | | 50 | Hz |
| current | | 450 | mA |
| upstream fuse (fast) | | 630 | mA |

15.3.1.3 Type 07- 4602-131*

| | | | |
|----------------------|----|----------|----|
| voltage | AC | 42... 48 | V |
| frequency | | 50 | Hz |
| current | | 200 | mA |
| upstream fuse (fast) | | 315 | mA |

15.3.1.4 Type 07- 4602-141*

| | | | |
|----------------------|----|--------|----|
| voltage | AC | 115 | V |
| frequency | | 50/ 60 | Hz |
| current | | 205 | mA |
| oder | | | |
| voltage | AC | 120 | V |
| frequency | | 60 | Hz |
| current | | 200 | mA |
| upstream fuse (fast) | | 315 | mA |

| | | | | |
|----------|---|----|------------------|-------|
| 15.3.1.5 | Type 07- 4602-151* | | | |
| | voltage | AC | 230 | V |
| | current | | 70 | mA |
| | frequency | | 50 | Hz |
| | upstream fuse (fast) | | 125 | mA |
| 15.3.2 | Thermal data | | | |
| | ambient temperature | | - 40 °C...+50 °C | |
| | temperature class | | | T5 |
| | max.surface temperature T | | 70 | °C |
| 15.3.3 | Degrees of protection according to EN 60529 | | | |
| | Type 07- 4602-1*12 | | | IP 65 |

(16) Test and assessment report
BVS PP 05.2086 EG as of 15.08.2005

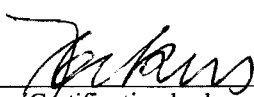
(17) Special conditions for safe use

- A fuse according to IEC 127 with the parameters given in paragraph 15.3 “parameters” has to be connected in the incoming circuit of the signal horn type 07- 4602-1*11.
- The signal horn type 07- 4602-1*12 is only suitable for use in areas with combustible dust having a minimum ignition energy of > 1 mJ.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 15. August 2005
BVS-Hk/Kw A 20050315

EXAM BBG Prüf- und Zertifizier GmbH



Certification body



Special services unit

Translation

(1) 1. Supplement to the EC-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC Supplement accordant with Annex III number 6

(3) No. of EC-Type Examination Certificate: **BVS 05 ATEX E 113 X**

(4) Equipment: **Signal horn type 07 - 4602-1*1***

(5) Manufacturer: **BARTEC GmbH**

(6) Address: **97980 Bad Mergentheim, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test and assessment report BVS PP 05.2086 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

| | |
|------------------|--------------------------|
| EN 60079-0:2006 | General requirements |
| EN 60079-7:2007 | Increased Safety 'e' |
| EN 60079-18:2004 | Encapsulation 'm' |
| EN 61241-0:2006 | General requirements |
| EN 61241-1:2004 | Protection by enclosures |

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.

(11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

 **II 2G Ex mb II T5** type 07-4602-1*11

 **II 2G Ex emb II T5**
II 2D Ex tD A21 IP65 T70°C type 07-4602-1*12

DEKRA EXAM GmbH
Bochum, dated 07.02.2012

Signed: Simanski

Certification body

Signed: Dr. Eickhoff

Special services unit

- (13) Appendix to
- (14) **1. Supplement to the EC-Type Examination Certificate
BVS 05 ATEX E 113 X**
- (15) 15.1 Subject and type

Signal horn type 07- 4602-1*1*

| | | | | |
|-----|----|--|---|--|
| 1 = | L | Version with sound outlet, type of protection „em“ | | |
| 2 = | | version with flat housing, type of protection „e“ and dust | | |
| 1 = | DC | 24 | V | |
| 2 = | AC | 24 | V | |
| 3 = | AC | 42...48 | V | |
| 4 = | AC | 115, 120 | V | |
| 5 = | AC | 230 | V | |

15.2 Description

The signal horn type 07- 4602-1*1* consists of an electromagnetic vibrating system, in which the armature coil serves as the vibrating mass and is mounted at the membrane. The movement of the membrane and the noise caused by the armature hitting the core produce the sound of the signal horn.

The signal horn type 07- 4602-1*11 meets category 2G (type of protection Ex mb),

Type 07- 4602-1*12 meets category 2G (type of protection Ex emb) and category 2D.

The reason for the supplement is the updating to EN 60079-et seq. resp. EN 61241-et seq.

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 Type 07- 4602-111*

| | | | |
|----------------------|----|-----|----|
| voltage | DC | 24 | V |
| current | | 350 | mA |
| upstream fuse (fast) | | 500 | mA |

15.3.1.2 Type 07- 4602-121*

| | | | |
|----------------------|----|-----|----|
| voltage | AC | 24 | V |
| frequency | | 50 | Hz |
| current | | 450 | mA |
| upstream fuse (fast) | | 630 | mA |

15.3.1.3 Type 07- 4602-131*

| | | | |
|----------------------|----|----------|----|
| voltage | AC | 42... 48 | V |
| frequency | | 50 | Hz |
| current | | 200 | mA |
| upstream fuse (fast) | | 315 | mA |

15.3.1.4 Type 07- 4602-141*

| | | | |
|----------------------|----|-------|----|
| voltage | AC | 115 | V |
| frequency | | 50/60 | Hz |
| current | | 205 | mA |
| or | | | |
| voltage | AC | 120 | V |
| frequency | | 60 | Hz |
| current | | 200 | mA |
| upstream fuse (fast) | | 315 | mA |

15.3.1.5 Type 07- 4602-151*

| | | | |
|----------------------|----|-----|----|
| voltage | AC | 230 | V |
| current | | 70 | mA |
| frequency | | 50 | Hz |
| upstream fuse (fast) | | 125 | mA |

| | | |
|--------|---|-----------------|
| 15.3.2 | Thermal data | |
| | ambient temperature | -40 °C...+50 °C |
| | temperature class | T5 |
| | max.surface temperature T | 70 °C |
| 15.3.3 | Degrees of protection according to EN 60529 | |
| | Type 07- 4602-1*12 | IP 65 |

(16) Test and assessment report

BVS PP 05.2086 EG as of 07.02.2012

(17) Special conditions for safe use Installation instructions

- A fuse according to IEC 127 with the parameters given in paragraph 15.3 "parameters" has to be connected in the incoming circuit of the signal horn type 07- 4602-1*11.
- The signal horn type 07- 4602-1*12 is only suitable for use in areas with combustible dust having a minimum ignition energy of > 1 mJ.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 07.02.2012
BVS-Hk/Her A 20110733



Certification body



Special services unit

Translation

(1) 2. Supplement to the EC-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC Supplement accordant with Annex III number 6

(3) No. of EC-Type Examination Certificate: **BVS 05 ATEX E 113 X**

(4) Equipment: **Signal horn type 07-4602-1*11/******

(5) Manufacturer: **BARTEC GmbH**

(6) Address: **Max-Eyth-Straße 16, 97980 Bad Mergentheim, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test and assessment report BVS PP 05.2086 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:


EN 60079-0:2012 General requirements
EN 60079-7:2007 Increased safety "e"
EN 60079-18:2009 Encapsulation "m"
EN 60079-31:2009 Protection by enclosure "t"

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.

(11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

 **II 2G Ex mb IIC T5 Gb** Type 07-4602-1*11/****

 **II 2G Ex e mb IIC T5 Gb**
II 2D Ex tb IIIC T70°C Db Type 07-4602-1*12/****

DEKRA EXAM GmbH
Bochum, dated 21st August 2013

Signed: Migenda

Signed: Wittler

Certification body

Special services unit

- (13) Appendix to
- (14) **2. Supplement to the EC-Type Examination Certificate
BVS 05 ATEX E 113 X**
- (15) 15.1 Subject and type

Signal horn type 07-4602-1*1*/****

- | | |
|----------|--|
| Asterisk | Description |
| 1 | Supply voltage |
| | 1 DC 24 V |
| | 2 AC 24 V, 50 Hz |
| | 3 AC 42 ... 48 V, 50 Hz |
| | 4 AC 115/120 V, 50 / 60 Hz |
| | 5 AC 230 V, 50 Hz |
| 2 | Variant |
| | 1 Variant with sound outlet in type of protection 'mb' |
| | 2 Variant with flat housing in type of protection 'e', 'mb' and 'tb' |
| 3...6 | Without influence to explosion protection |

15.2 Description

The signal horn type 07-4602-1*1*/**** consists of an electro-magnetic oscillating system, in which the coil anchor is mounted at the horn's membrane to provide the oscillating mass needed. The acoustic signal of the horn is created by the moving membrane in combination with the anchor hitting the core.

The signal horn type 07-4602-1*1*/**** consists of a non-metallic enclosure with gaskets.

The signal horn type 07-4602-1*11*/**** is designed in type of protection Encapsulation 'mb' for use in areas endangered by gas atmospheres.

The signal horn type 07-4602-1*12*/**** is designed in type of protection Increased Safety 'e' and Encapsulation 'mb' for use in areas endangered by gas atmospheres. Furthermore it is designed in type of protection Protection by Enclosure 'tb' for use in areas endangered by dust atmospheres.

Reason for this supplement is the update to the current standards.

15.3 Parameters

Electrical parameters

| Type | Rated voltage [V] | Rated current [mA] | Frequency [Hz] | Upstream fuse (fast) [mA] |
|-------------------|-------------------|--------------------|----------------|---------------------------|
| 07-4602-111*/**** | 24 DC | 350 | --- | 500 |
| 07-4602-121*/**** | 24 AC | 450 | 50 | 630 |
| 07-4602-131*/**** | 42 ... 48 AC | 200 | 50 | 315 |
| 07-4602-141*/**** | 115 AC | 205 | 50/60 | 315 |
| | 120 AC | 200 | 60 | 315 |
| 07-4602-151*/**** | 230 AC | 70 | 50 | 125 |

Thermal parameters

Ambient temperature range

-40 °C ... 50 °C

Miscellaneous parameters

IP Degree of Protection type 07-4602-1*1*/****

IP65



(16) Test and assessment report

BVS PP 05.2086 EG as of 21st August 2013

(17) Special conditions for safe use

- A fuse according to IEC 127 with the parameters given in paragraph 4 *Parameters* has to be connected in the incoming circuit of the signal horn type 07-4602-1*1*/****.
- The signal horn type 07-4602-1*12/**** is only suitable for use in areas with combustible dust having a minimum ignition energy of > 1 mJ.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 21st August 2013
BVS-Kir/Ma A20130723



Certification body



Special services unit