



Translation

EC-Type Examination Certificate

- Directive 94/9/EC -

**Equipment and protective systems intended for use
in potentially explosive atmospheres**

BVS 03 ATEX E 118 X

- (4) **Equipment:** Signal horn type 750 000 **
- (5) **Manufacturer:** WERMA Signaltechnik GmbH & Co.
- (6) **Address:** 78604 Rietheim-Weilheim, 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 Deutsche Montan Technologie 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 03.2095 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
EN 50014:1997 + A1 – A2 General requirements
EN 50028:1987 Encapsulation 'm'
- (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 IIB T5**

Deutsche Montan Technologie GmbH

Essen, dated 20. May 2003

Signed: Dr. Eickhoff

Certification body

Signed: Dr. Arnold

Special services unit

(13) Appendix to

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

BVS 03 ATEX E 118 X

(15) 15.1 Subject and type

Signal horn type 750 000 **

55 =	DC	24 V
65 =	AC	24 V
66 =	AC	42 V
67 =	AC	115 V
68 =	AC	230 V

15.2 Description

The signal horn type 750 000 ** consists of a 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.

15.3 Parameters

15.3.1 Type 750 000 55

Rated voltage	DC	24	V
Rated current		350	mA
Upstream fuse (FLINK)		500	mA

15.3.2 Type 750 000 65

Rated voltage	AC	24	V
Rated current		450	mA
Upstream fuse (FLINK)		630	mA

15.3.3 Type 750 000 66

Rated voltage	AC	42	V
Rated current		200	mA
Upstream fuse (FLINK)		315	mA

15.3.4 Type 750 000 67

Rated voltage	AC	115	V
Current		205	mA
Upstream fuse (FLINK)		315	mA

15.3.5 Type 750 000 68

Rated voltage	AC	230	V
Current		70	mA
Upstream fuse (FLINK)		125	mA

(16) Test and assessment report

BVS PP 03.2095 EG as of 20.05.2003

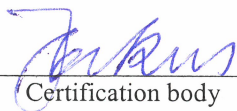
(17) Special conditions for safe use

To the signal horn type 750 000 ** a fuse has to be connected which complies with the values of the 'Parameters' defined in clause 4 of IEC 127.

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, 27.08.2007
BVS-Hk/Ar E 1094/07

DEKRA EXAM GmbH



Certification body

Special services unit



Translation
1st Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate
BVS 03 ATEX E 118 X

Equipment: Signal horn type 750 000 ***

Manufacturer: WERMA Signaltechnik GmbH & Co.

Address: 78604 Rietheim-Weilheim, Germany

Description

The electronics of the signal horn of the following types, i.e. 750 000 65, 750 000 66, 750 000 67 and 750 000 68 are modified according to the documents listed below.

Type 750 000 66 sees an increase of the nominal voltage from 42 V AC to 48 V AC.

Signal horn type 750 000 ** is also suitable for hazardous areas of Group IIC, Gases.

Signal horn type 750 000 ** is supplemented by type 761 000 **.

Signal horn type 761 000 ** complies with category 2G (type of protection EEx me) and category 2D.

All types listed under item 1) are suitable for an ambient temperature range of -40 °C...+50 °C.

Thus, the complete type marking shall read:

Signal horn type 7** 000 **

55 =	DC	24	V
65 =	AC	24	V
66 =	AC	42... 48	V
67 =	AC	115, 120	V
68 =	AC	230	V
50 =	Version with megaphone, type of protection 'm'		
61 =	Version with flat enclosure, type of protection 'me' and Dust		

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 50014:1997 + A1 – A2	General requirements
EN 50028:1987	Encapsulation 'm'
EN 50281-1-1:1998+A1	Dust explosion protection

Electrical data

Type 7** 000 55			
Voltage	DC	24	V
Current		350	mA
Upstream fuse (FLINK)		500	mA

Type 7** 000 65			
Voltage	AC	24	V
Frequency		50	Hz
Current		450	mA
Upstream fuse (FLINK)		630	mA

Type 7** 000 66			
Voltage	AC	42... 48	V
Frequency		50	Hz
Current		200	mA
Upstream fuse (FLINK)		315	mA

Type 7** 000 67			
Voltage	AC	115	V
Frequency		50/ 60	Hz
Current		205	mA
or			
Voltage	AC	120	V
Frequency		60	Hz
Current		200	mA
Upstream fuse (FLINK)		315	mA

Type 7** 000 68			
Voltage	AC	230	V
Current		70	mA
Frequency		50	Hz
Upstream fuse (FLINK)		125	mA

Thermal data

Ambient temperature	- 40 °C...	50	°C
Temperature class			T5
Max. surface temperature T		70	°C

Type of protection according to EN 60529

Type 761 000 ** IP 65

Marking

Type 750 000 **

 II 2G EEx m II T5

Type 761 000 **

 II 2G EEx me II T5
II 2D IP65 T 70 °C

Special conditions for safe use

- To the signal horn type 750 000 **, a fuse must be connected ahead which complies with the values defined in the clause 'Parameters' of IEC 127.
- The signal horn type 761 000 ** is only suitable for the use in hazardous areas of combustible dusts of a minimum ignition energy exceeding > 1 mJ.

Test and assessment report

BVS PP 03.2095 EG as of 16.09.2004

EXAM BBG Prüf- und Zertifizier GmbH

Bochum, dated 16. September 2004

Signed: Dr. Jockers

Signed: Dr. Eickhoff

Certification body

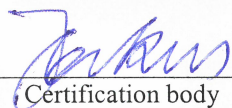
Special services unit

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, 27.08.2007

BVS-Hk/Ar E 1094/07

DEKRA EXAM GmbH



Certification body



Special services unit



Translation 2nd Supplement

(Supplement in accordance with Directive 94/9/EC Annex III number 6)

to the EC-Type Examination Certificate BVS 03 ATEX E 118 X

Equipment: Ex-Signal horn type 750 000 ** and type 761 000 **
Manufacturer: WERMA Signaltechnik GmbH + Co. KG
Address: 78604 Rietheim-Weilheim, Germany

Description

This supplement was made because of the update to the new standards.

The type code, electrical parameters, thermal parameters and the marking remain unchanged as stated in supplement 1.

The Ex-Signal horns type 750 000 ** and type 761 000 ** can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:

EN 60079-0:2006	General requirements
EN 60079-7:2007	Increased safety
EN 60079-18:2004	Encapsulation
EN 61241-0:2006	General requirements
EN 61241-1:2004	Protection by enclosures

The marking of the equipment shall include the following:



II 2G Ex mb II T5

Type 750 000 **



II 2G Ex emb II T5

II 2D Ex tD A21 IP65 T70°C

Type 761 000 **

Special conditions for safe use

- To the signal horn type 7** 000 **, a fuse must be connected ahead which complies with the values defined in the clause 4 'Parameters' of IEC 127 stated in the test report BVS PP 03.2095 EG / N1.
- The signal horn type 761 000 ** is only suitable for the use in hazardous areas of combustible dusts of a minimum ignition energy exceeding > 1 mJ.

Test and assessment report

BVS PP 03.2095 EG / N2 as of 29.07.2008

DEKRA EXAM GmbH

Bochum, dated 29. July 2008

Signed: Dr. Jockers

Signed: Dr. Eickhoff

Certification body

Special services unit

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, 12.08.2008
BVS-Kr/Ar A 20080533

DEKRA EXAM GmbH



Certification body



Special services unit

Translation

(1) 3. 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 03 ATEX E 118 X**
- (4) Equipment: **Ex signal horn type 750 *** ** and 761 *** ****
- (5) Manufacturer: **WERMA Signaltechnik GmbH + Co. KG**
- (6) Address: **Dürbheimer Strasse 15, 78604 Rietheim-Weilheim, 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 03.2095 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 750 * ****



II 2G Ex e mb IIC T5 Gb
II 2D Ex tb IIIC T70°C Db

Type 761 * ****

DEKRA EXAM GmbH
Bochum, dated 09. April 2013

Signed:

Certification body

Signed:

Special services unit

- (13) Appendix to
- (14) **3. Supplement to the EC-Type Examination Certificate
BVS 03 ATEX E 118 X**
- (15) 15.1 Subject and type

Ex signal horn type 7** *** **

Asterisk Description

1 ... 2 Variant

50 : Variant with megaphone in type of protection „mb“

61 : Variant with flat enclosure in type of protection „e“ and „mb“ or „tb“

3 ... 5 Without influence to explosion protection

6 Current

5 : DC

6 : AC

7 Rated voltage

5 : 24 V

6 : 48 V

7 : 115 / 120 V

8 : 230 V

15.2 Description

The signal horn type 7** *** ** consists of a 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 7** *** ** consists of a non-metallic enclosure with gaskets.

The signal horn type 750 *** ** is designed in type of protection Encapsulation “mb” for use in areas endangered by gas atmospheres.

The signal horn type 761 *** ** is designed in type of protection Increased Safety “e” and Encapsulation “m” for use in areas endangered by gas atmospheres. Furthermore it is designed in type of protection Protection by Enclosure “t” for use in areas endangered by dust atmospheres.

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

15.3 Parameters

15.3.1 Electrical ratings

Type	Rated voltage [V]	Rated current [mA]	Frequency [Hz]	Fuse in supply line (fast) [mA]
7** *** 55	24	350	---	500
7** *** 65	24	450	50	630
7** *** 66	42 ... 48	200	50	315
7** *** 67	115	205	50/60	315
	120	200	50	315
7** *** 68	230	70	50	125

15.3.2 Thermal ratings

Ambient temperature range

-40 °C ... +50 °C

15.3.3 Other ratings

Degree of protection for Type 761 *** **

IP65

(16) Test and assessment report

BVS PP 03.2095 EG as of 09.04.2013

(17) Special conditions for safe use

To the signal horn type 7** *** **, a fuse must be connected ahead which complies with the values defined in the clause 15.3 'Parameters' of IEC 127.

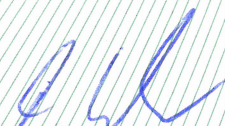
The signal horn type 761 *** ** is only suitable for the use in hazardous areas of combustible dusts of a minimum ignition energy exceeding > 1 mJ.

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, 09. April 2013
BVS-Kir/Sp A 20121068



Certification body



Special services unit