

Translation

EU-Type Examination Certificate Supplement 4

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 04 ATEX E 205 X**

Product: **Vibrations-Grenzschalter VEGASWING**

Manufacturer: **VEGA Grieshaber KG**

Address: **Am Hohenstein 113, 77761 Schiltach, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 04 ATEX E 205 to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 04.2147 EU.

The Essential Health and Safety Requirements are assured in consideration of:


EN IEC 60079-0:2018	General requirements
IEC 60079-26:2021	Separation Elements or combined Levels of Protection
EN 60079-31:2014	Protection by Enclosure "t"

Except in respect of those requirements listed under item 18 of the appendix.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 II 1/2D Ex ta/tb IIIC T see manual Da/Db or
II 2D Ex tb IIIC T see manual Db
IP66

DEKRA Testing and Certification GmbH
Bochum, 2021-07-05

Signed: Jörg-Timm Kilisch

Managing Director

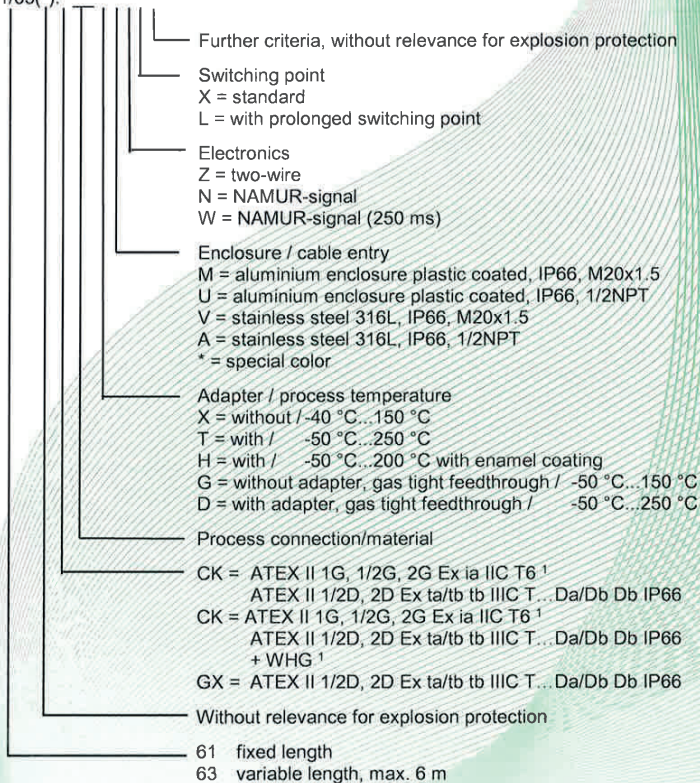
Page 1 of 4 of BVS 04 ATEX E 205 / N4 – Jobnumber 342294600
This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
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- 13 **Appendix**
- 14 **EU-Type Examination Certificate**
- BVS 04 ATEX E 205 X**
- Supplement 4**
- 15 **Product description**
- 15.1 **Subject and type**

Vibrating level switch VEGASWING with type code
 SWING 61/63(*)



¹ The assessment for use in explosive gas atmospheres and WHG is not part of this Test Report.



17 **Special Conditions for Use**

Intensive electrostatic charging for instance by the process has to be avoided. In case of extremely ignitable dusts (MIE < 3 mJ) the equipment must not be used in areas where intensive charging processes are to be expected.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

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 Testing and Certification GmbH
 Bochum, 2021-07-05
 BVS-Hor/MGR A20210393



Managing Director



Translation

EU-Type Examination Certificate Supplement 3

Change to Directive 2014/34/EU

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 04 ATEX E 205 X**

Product: **Vibrating level switch type VEGASWING 61/63(*) *******

Manufacturer: **VEGA Grieshaber KG**

Address: **Am Hohenstein 113, 77761 Schiltach, Germany**

This supplementary certificate extends EC-Type Examination Certificate No. BVS 04 ATEX E 205 to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 04.2147 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN 60079-0:2012 + A11:2013 General requirements
EN 60079-31:2014 Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 1/2 D Ex ta/tb IIIC T see manual Da/Db resp..**
II 2 D Ex tb IIIC T see manual Db

DEKRA Testing and Certification GmbH
Bochum, 2019-03-21

Signed: Jörg-Timm Kilisch

Managing Director

13 Appendix
14 EU-Type Examination Certificate

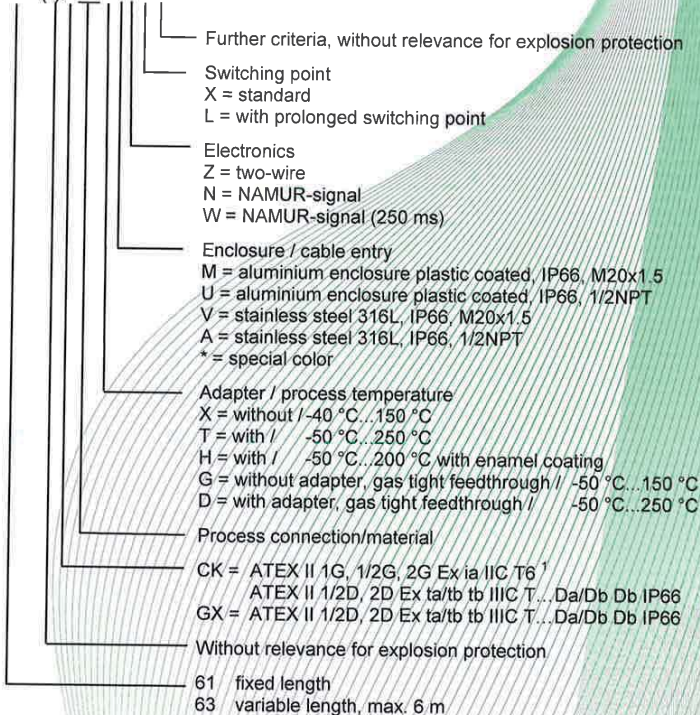
BVS 04 ATEX E 205 X
Supplement 3

15 Product description

15.1 Subject and type

Vibrating level switch type VEGASWING

61/63(*) * * * * *



¹ The assessment for use in explosive gas atmospheres is not part of this Certificate.

Translation

2nd 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 04 ATEX E 205**
- (4) Equipment: **Vibrating level switch type VEGASWING 61/63(*) * * * * ***
- (5) Manufacturer: **VEGA Grieshaber KG**
- (6) Address: **Am Hohenstein 113, 77761 Schiltach, 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 04.2147 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
EN 60079-0:2012 + A11:2013 General requirements
EN 60079-31:2014 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 1/2 D Ex ta/tb IIIC T** see manual **Da/Db** resp.
II 2 D Ex tb IIIC T see manual **Db**

DEKRA EXAM GmbH
Bochum, dated 2016-01-21

Signed: Dr. Eickhoff

Certification body

Signed: Dr. Wittler

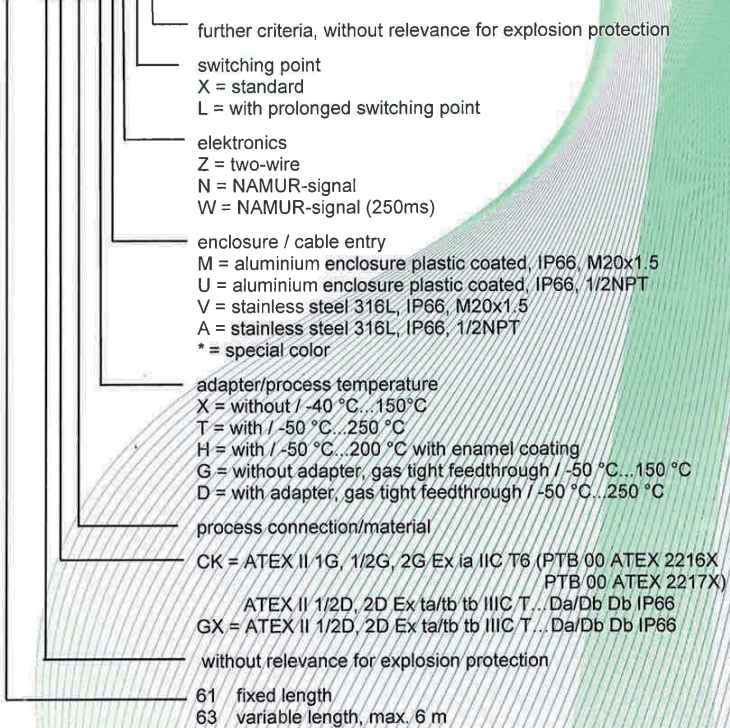
Special services unit



- (13) Appendix to
- (14) **2nd Supplement to the EC-Type Examination Certificate
BVS 04 ATEX E 205**
- (15) 15.1 Subject and type

Vibrating level switch type VEGASWING

61/63(*)*****



15.2 Description

The **Vibrating Level Switch** type VEGASWING 6*GX/CK***** is used for level monitoring, controlling and regulating in silos with dust generating material. The probe of the Vibrating Level Switch vibrates at its mechanical resonant frequency. In case the probe is covered with material, the vibration is damped and a switch signal is generated.

The reason for this supplement is a modified type code and the updating to the current standards.

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 Type VEGASWING 61/63(*) GX/CK **** * Z **
with electronics insert SW E60ZEX built in
Supply and signal circuit

in type of protection Intrinsic Safety Ex ia IIC
only for connection to a certified intrinsically
safe circuit with the following maximum values:
 $U_i = 29 \text{ V}$ $U_i = 24 \text{ V}$
 $I_i = 116 \text{ mA}$ or $I_i = 131 \text{ mA}$
 $P_i = 841 \text{ mW}$ $P_i = 786 \text{ mW}$
effective internal capacitance negligible
effective internal inductivity negligible

15.3.1.2 Type VEGASWING 61/63(*) GX/CK **** * N/W **
with electronics insert SW E60NEX built in
Supply and signal circuit

in type of protection Intrinsic Safety Ex ia IIC
only for connection to a certified intrinsically
safe circuit with the following maximum values:
 $U_i = 20 \text{ V}$
 $I_i = 103 \text{ mA}$
 $P_i = 516 \text{ mW}$
effective internal capacitance negligible
effective internal inductivity negligible

15.3.2 Thermal data

15.3.2.1 Permitted process temperature at the probe, category 1D or 2D

Type VEGASWING 61/63(*) GX *** X ****	-40 °C...+ 150 °C
Type VEGASWING 61/63(*) GX *** T ****	-50 °C...+ 250 °C
Type VEGASWING 61/63(*) GX *** H ****	-50 °C...+ 200 °C
Type VEGASWING 61/63(*) GX *** G ****	-50 °C...+ 150 °C
Type VEGASWING 61/63(*) GX *** D ****	-50 °C...+ 250 °C

15.3.2.2 Max. surface temperature T at the probe process temperature + 2 K

15.3.2.3 Permitted ambient temperature at the electronics enclosure -40 °C...+ 60 °C

15.3.2.4 Maximum surface temperature at the electronics enclosure ambient temperature+ 13 K

15.3.3 Degrees of protection according to EN 60529 IP66

(16) Test and Assessment Report

BVS PP 04.2147 EG as of 2016-01-21

(17) Special conditions for safe use


None



Translation

EC-Type Examination Certificate

- (1)
- (2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use
in potentially explosive atmospheres
- (3) **BVS 04 ATEX E 205**
- (4) **Equipment:** Vibrating level switch type VEGASWING SWING6*.GX/CK***Z/N*
- (5) **Manufacturer:** VEGA Grieshaber KG
- (6) **Address:** D 77757 Schiltach
- (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 04.2147 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
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 1/2 D IP 66 T** see 15.3.2 or
II 2 D IP 66 T see 15.3.2

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 07. September 2004

Signed: Dr. Jockers

Certification body

Signed: Dr. Eickhoff

Special services unit

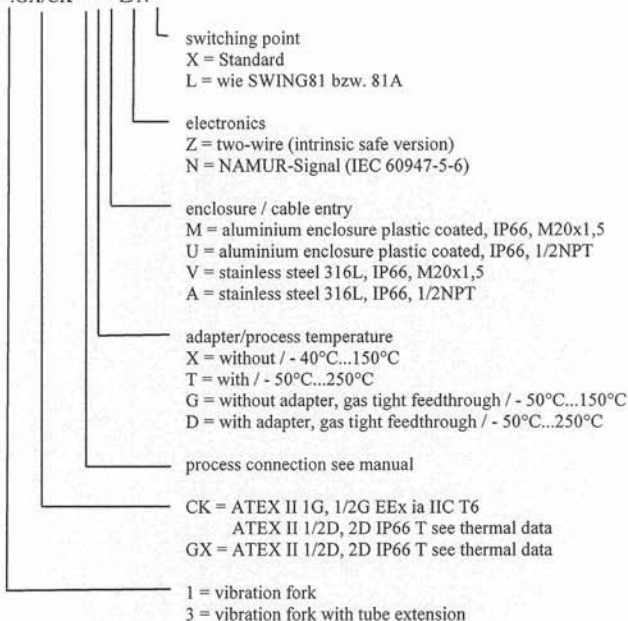
(13) Appendix to

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

BVS 04 ATEX E 205

(15) 15.1 Subject and type

Vibrating level switch type VEGASWING
SWING 6 *.GX/CK *** Z/N *



15.2 Description

The Vibrating Level Switch type VEGASWING SWING6*.GX/CK***Z/N* is used for level monitoring, controlling and regulating in silos with dust generating material
The probe of the Vibrating Level Switch vibrates at its mechanical resonant frequency. In case the probe is covered with material, the vibration is damped and a switch signal is generated.

15.3 Parameters

15.3.1 Electrical data

- 15.3.1.1 Type VEGASWING SWING6*.GX/CK***Z*
with electronics insert SW E60ZEX built in
Supply and signal circuit

in type of protection Intrinsic Safety EEx ia IIC
only for connection to a certified intrinsically safe circuit
with the following maximum values

$$\begin{array}{ll} U_i = 29 \text{ V} & U_i = 24 \text{ V} \\ I_i = 116 \text{ mA} & I_i = 131 \text{ mA} \\ P_i = 841 \text{ mW} & P_i = 786 \text{ mW} \end{array} \quad \text{oder - or}$$

effective internal capacitance negligible
effective internal inductivity negligible

- 15.3.1.2 Type VEGASWING SWING6*.GX/CK***N*
with electronics insert SW E60NEX built in
Supply and signal circuit

in type of protection Intrinsic Safety EEx ia IIC
only for connection to a certified intrinsically safe circuit
with the following maximum values

$$\begin{array}{l} U_i = 20 \text{ V} \\ I_i = 103 \text{ mA} \\ P_i = 516 \text{ mW} \end{array}$$

effective internal capacitance negligible
effective internal inductivity negligible

15.3.2 Thermal data

- 15.3.2.1 Permitted process temperature at the probe, category 1D or 2D

Types VEGASWING SWING6*.GX/CK*X*Z/N*	- 40 °C...+ 150 °C
Types VEGASWING SWING6*.GX/CK*G*Z/N*	- 50 °C...+ 250 °C
Types VEGASWING SWING6*.GX/CK*T/D*Z/N*	- 50 °C...+ 250 °C

- 15.3.2.2 Max. surface temperature T at the probe process temperature + 2 K
- 15.3.2.3 Permitted ambient temperature at the electronics enclosure - 40 °C...+ 60 °C
- 15.3.2.4 Maximum surface temperature at the electronics enclosure ambient temperature+ 13 K
- 15.3.3 Degrees of protection according to EN 60529 IP66

- (16) Test and assessment report
BVS PP 04.2147 EG as of 07.09.2004
- (17) Special conditions for safe use
None

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, 07.09.2004
BVS-Hk/Mi A 20040538

EXAM BBG Prüf- und Zertifizier 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 04 ATEX E 205

Equipment: Vibrations-Grenz-Schalter type VEGASWING
SWING 61.GX/CK****Z/N* and SWING 63.GX/CK****Z/N

Manufacturer: VEGA Grieshaber KG

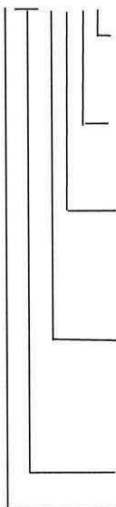
Address: 77757 Schiltach

Description

The vibrating level switch meets the requirements of the standards EN 61241-0:2006 and EN 61241-1:2004. The model code was changed according to the descriptive documents as mentioned in the pertinent test and assessment report. The cover of the enclosure can optionally be modified according to the descriptive documents as mentioned in the pertinent test and assessment report.

Subject and type

Vibrating level switch type VEGASWING
SWING 61.*****



switching point
X = Standard
L = as SWING81 bzw. 81A

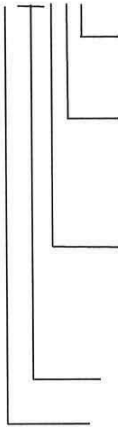
electronics
Z = two-wire (intrinsic safe version)
N = NAMUR-Signal (IEC 60947-5-6)

enclosure / cable entry
M = aluminium enclosure plastic coated, IP66, M20x1.5
U = aluminium enclosure plastic coated, IP66, 1/2NPT
V = stainless steel 316L, IP66, M20x1.5
A = stainless steel 316L, IP66, 1/2NPT

adapter/process temperature
X = without / - 40 °C...150 °C
T = with / - 50 °C...250 °C
G = without adapter, gas tight feedthrough / - 50 °C...150 °C
D = with adapter, gas tight feedthrough / - 50 °C...250 °C

process connection/material
CK = ATEX II 1G, 1/2G Ex ia IIC T6 (PTB 00 ATEX 2216X
PTB 00 ATEX 2217X)
ATEX II 1/2D, 2D Ex tD IP66 T see thermal data
GX = ATEX II 1/2D, 2D Ex tD IP66 T see thermal data

SWING 63.* * * * *



electronics

Z = two-wire (intrinsic safe version)

N = NAMUR-Signal (IEC 60947-5-6)

enclosure / cable entry

M = aluminium enclosure plastic coated, IP66, M20x1.5

U = aluminium enclosure plastic coated, IP66, 1/2NPT

V = stainless steel 316L, IP66, M20x1.5

A = stainless steel 316L, IP66, 1/2NPT

adapter/process temperature

X = without / - 40 °C...150 °C

T = with / - 50 °C...250 °C

G = without adapter, gas tight feedthrough / - 50 °C...150 °C

D = with adapter, gas tight feedthrough / - 50 °C...250 °C

process connection/material

CK = ATEX II 1G, 1/2G Ex ia IIC T6 (PTB 00 ATEX 2216X
PTB 00 ATEX 2217X)

ATEX II 1/2D, 2D Ex tD IP66 T see thermal data

GX = ATEX II 1/2D, 2D Ex tD IP66 T see thermal data

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

EN 61241-0:2006 General requirements

EN 61241-1:2004 Protection by enclosures

The marking of the equipment shall include the following:



II 1/2 D Ex tD A20/21 IP66 T see manual or

II 2 D Ex tD A21 IP66 T see manual

Special conditions for safe use

none

Test and assessment report
BVS PP 04.2147 EG as of 05.02.2008

DEKRA EXAM GmbH

Bochum, dated 05. February 2008

Signed: Dr. Jockers

Certification body

Signed: Dr. Eickhoff

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, 05.02.2008
BVS-Hk/Mi A 20070778

DEKRA EXAM GmbH


Certification body


Special services unit

