THE STRONGEST LINK.

Certificates
Keyboard KBDi

Variant KBD(i)-PS2-**
Variant KBD(i)-*-PS2-****
Variant KBDi-JS2-PS2-**

R. STAHL HMI Systems GmbH
Adolf-Grimme-Allee 8
D 50829 Köln

Certificates version: **01.00.04**
Issue: **06.12.2019**

Table of contents

1 Preface

NOTICE	This document contains all valid certificates for the KBDi keyboards. All technical details contained in the EC type examination certificate are also part of the associated operating instructions. All certificates are also available on r-stahl.com, on the CDs / DVDs / USB sticks included in the delivery or a copy can also be ordered from R. STAHL HMI Systems GmbH.

2 EC-Declaration of Conformity

2.1 KBD(i)-PS2-** keyboard version

EG/EU-Konformitätserklärung
EC/EU Declaration of Conformity
Déclaration de Conformité CE/UE

R. STAHL HMI Systems GmbH • Adolf-Grimme-Allee 8 • 50829 Köln, Germany
erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: *that the product:* *que le produit:*	**Keyboard**
Typ(en), *type(s), type(s):*	**KBD(i)-PS2-***** *** = In the complete type denomination, the asterisks are replaced by letters or numbers to identify different variations. These variations have no influence on explosion protection.

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / *Directive(s) / Directive(s)*	**Norm(en)** / *Standard(s) / Norme(s)*	
		Das Produkt entspricht Anforderungen aus: *Product corresponds to requirements from:* *Produit correspond aux exigences:*
2014/34/EU **ATEX-Richtlinie** *2014/34/EU* *ATEX Directive* *2014/34/UE* *Directive ATEX*	EN 60079-0:2012/A11:2013 EN 60079-11:2012	
Kennzeichnung, *marking, marquage:*	Ⓔx **II 2G Ex ib IIC T4 Gb** **CE 0158**	

EG/EU-Baumusterprüfbescheinigung: *EC/EU Type Examination Certificate:* *Attestation d'examen CE/UE de type:*	**BVS 06 ATEX E 080** **DEKRA EXAM GmbH (NB 0158)** Dinnedahlstrasse 9, 44809 Bochum, Germany
2014/30/EU **EMV-Richtlinie** *2014/30/EU* *EMC Directive* *2014/30/UE* *Directive CEM*	EN 61000-6-2: 2006 EN 61000-6-4: 2007 + A1:2011 EN 61326-1:2013
Produktnormen nach RoHS-Richtlinie (2011/65/EU): *Product standards according to RoHS Directive:* *Normes des produit pour la Directive RoHS:*	EN 50581:2012

Köln, 2017-02-24 — **Ort und Datum** *Place and date* *Lieu et date*

i.V. — **J. Düren** Technical Director

i.V. — **A. Jung** Ex Representative

20170870010 Konformitätserklärung KBDi-PS2-xxx.docx

Template_ EGEU_Konf_20150720.docx, Page **1 / 1**

2.2 KBD(i)-***-PS2-** keyboard version

EG/EU-Konformitätserklärung
EC/EU Declaration of Conformity
Déclaration de Conformité CE/UE

R. STAHL HMI Systems GmbH • Adolf-Grimme-Allee 8 • 50829 Köln, Germany
erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: *that the product:* *que le produit:*	**Keyboard with Joystick / Trackball**
Typ(en), *type(s), type(s):*	**KBD(i)-TB-PS2-**** und / and / et **KBD(i)-JS-PS2-**** **=any character without relevance for explosion protection

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / *Directive(s) / Directive(s)*			**Norm(en)** / *Standard(s) / Norme(s)*	
Bis/*Until/Jusque'au* 2016-04-19:		**Ab/*From/De* 2016-04-20:**	EN 60079-0: 2009 EN 60079-11:2007 EN 61241-11:2006	Das Produkt entspricht Anforderungen aus: *Product corresponds to requirements from:* *Produit correspond aux exigences:* EN 60079-0: 2012 EN 60079-11: 2012
94/9/EG *94/9/EC* *94/9/CE*	**ATEX-Richtlinie** *ATEX Directive* *Directive ATEX*	**2014/34/EU** *2014/34/EU* *2014/34/UE*		

Kennzeichnung, *marking, marquage:*

II 2G Ex ib IIC T4 Gb
II 2D Ex ib IIIB T90 °C Db

CE 0158

EG/EU-Baumusterprüfbescheinigung:
EC/EU Type Examination Certificate:
Attestation d'examen CE/UE de type:

BVS 07 ATEX E 019

DEKRA EXAM GmbH (NB 0158)
Dinnendahlstraße 9, 44809 Bochum, Germany

Bis/*Until/Jusque'au* 2016-04-19:		**Ab/*From/De* 2016-04-20:**	EN 55022:1994 +A1:1995 +A2:1997 EN 55024:1998 EN 61000-6-2:2001
2004/108/EG *2004/108/EC* *2004/108/CE*	**EMV-Richtlinie** *EMC Directive* *Directive CEM*	**2014/30/EU** *2014/30/EU* *2014/30/UE*	
Produktnormen nach RoHS-Richtlinie (2011/65/EU): *Product standards according to RoHS Directive:* *Normes des produit pour la Directive RoHS:*			EN 50581:2012

Köln, 2015-12-11
Ort und Datum
Place and date
Lieu et date

i.V. Joachim Düren
J. Düren
Technical Director

i.V. W. Bertges
W. Bertges
Quality Manager

201550700100 Konformitätserklärung KBDi-TB-JS.docx

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2.3 KBDi-JS2-PS2-** keyboard version

EG/EU-Konformitätserklärung
EC/EU Declaration of Conformity
Déclaration de Conformité CE/UE

R. STAHL HMI Systems GmbH • Adolf-Grimme-Allee 8 • 50829 Köln, Germany
erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*

dass das Produkt: *that the product:* *que le produit:*	**Keyboard with Joystick**
Typ(en), *type(s), type(s):*	**KBDi-JS2-PS2-xx** xx = The asterisks are replaced by letters to mark different country-specific keyboard-designs. These differences have no relevance for explosion protection.

mit den Anforderungen der folgenden Richtlinien und Normen übereinstimmt.
is in conformity with the requirements of the following directives and standards.
est conforme aux exigences des directives et des normes suivantes.

Richtlinie(n) / *Directive(s) / Directive(s)*		**Norm(en)** / *Standard(s) / Norme(s)*	
			Das Produkt entspricht Anforderungen aus: *Product corresponds to requirements from:* *Produit correspond aux exigences:*
2014/34/EU *2014/34/EU* *2014/34/UE*	**ATEX-Richtlinie** *ATEX Directive* *Directive ATEX*	EN 60079-0:2012/A11:2013 EN 60079-11:2012	
Kennzeichnung, *marking, marquage:*		Ⓔx II 2G Ex ib IIC T4 Gb CE 0158	
EG/EU-Baumusterprüfbescheinigung: *EC/EU Type Examination Certificate:* *Attestation d'examen CE/UE de type:*		**BVS 16 ATEX E 122** **DEKRA EXAM GmbH (NB 0158)** Dinnedahlstrasse 9, 44809 Bochum, Germany	
2014/30/EU *2014/30/EU* *2014/30/UE*	**EMV-Richtlinie** *EMC Directive* *Directive CEM*	EN 61000-6-2: 2006 EN 61000-6-4: 2007 + A1:2011 EN 61326-1:2013	
Produktnormen nach RoHS-Richtlinie (2011/65/EU): *Product standards according to RoHS Directive:* *Normes des produit pour la Directive RoHS:*		EN 50581:2012	

Köln, 2017-02-22	i.V. Joachim Düren	i.V. A. Jung
Ort und Datum *Place and date* *Lieu et date*	**J. Düren** Technical Director	**A. Jung** Ex Representative

20170570030 Konformitätserklärung KBDi-JS2-PS2-xx.docx Template_ EGEU_Konf_20150720.docx, Page 1 / 1

3 ATEX EC type examination certificate

3.1 KBD(i)-PS2-** keyboard version

BBG Prüf- und Zertifizier GmbH

Translation

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

(2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use in potentially explosive atmospheres

(3) **BVS 06 ATEX E 080**

(4) **Equipment:** **Keyboard Typ KBD(i)-***-PS2-****

(5) **Manufacturer:** **R. STAHL HMI Systems GmbH**

(6) **Address:** **50767 Köln, 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 06.2071 EG.

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

EN 50014:1997+A1-A2 General requirements
EN 50020:2002 Intrinsic safety ´i´

(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 ib IIC T4

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 30. June 2006

Signed: Dr. Jockers
Certification body

Signed: Dr. Eickhoff
Special services unit

Page 1 of 2 to BVS 06 ATEX E 080
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Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110

EXAM
BBG Prüf- und Zertifizier GmbH

(13) Appendix to

(14) # EC-Type Examination Certificate

BVS 06 ATEX E 080

(15) 15.1 Subject and type

Keyboard type KBD(i)-***-PS2-***
Instead of the *** in the complete denomination letters and numerals will be inserted which characterize different modifications; those modifications have no influence on explosion protection.

15.2 Description
The keyboard is used for input of data and commands and is designed for mounting in a panel.
The keyboard consist of a pc board, which is fixed behind a light metal plate and protected by a metal cover; the light metal plate has openings for the operation of switching elements and a a plastic foil at the front side.

15.3 Parameters

Voltage	Ui	DC 6	V
Current	Ii	350	mA
Power	Pi	1,2	W
Max. internal capacitance	Ci	14	µF
Max. internal inductivitance	Li	negligible	
Ambient temperature range	Ta	-10 °C up to +60 °C	

(16) Test and assessment report
BVS PP 06.2071 EG as of 30.06.2006

(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, 10.07. 2006
BVS-Schu/Mi A 20060364

EXAM BBG Prüf- und Zertifizier GmbH

Certification body

Special services unit

Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110

3.1.1 1st Supplement

Translation

1 **Type Examination Certificate Supplement 1**
Change to Directive 2014/34/EU

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

3 Type Examination Certificate Number: **BVS 06 ATEX E 080**

4 Product: **Keyboard type KBD(i)-PS2-*****

5 Manufacturer: **R. STAHL HMI Systems GmbH**

6 Address: **Adolf-Grimme Allee 8, 50829 Köln, Germany**
formerly: **Im Gewerbegebiet Pesch 14, 50767 Köln, Germany**

7 This supplementary certificate extends EC-Type Examination Certificate No. BVS 06 ATEX E 080 to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any variations specified in the appendix attached to this certificate and the documents referred to therein.

8 DEKRA EXAM GmbH 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 06.2071 EU.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 + A11:2013 **General requirements**
EN 60079-11:2012 **Intrinsic Safety "i"**

10 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.

11 This 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.

12 The marking of the product shall include the following:

II 2G Ex ib IIC T4 Gb

DEKRA EXAM GmbH
Bochum, 2016-09-16

Signed: Jörg Koch
Certifier

Signed: Dr. Michael Wittler
Approver

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

13 **Appendix**

14 **Type Examination Certificate**

BVS 06 ATEX E 080
Supplement 1

15 **Product description**

15.1 **Subject and type**

Keyboard type KBD(i)-PS2-***

In the complete type denomination, the asterisks are replaced by letters or numbers to identify different variations. These variations have no influence on explosion protection.

Note: The former type designation KBD(i)-***-PS2-*** was reduced: As the first 3 asterisks in the type key are not filled, they are deleted from the denomination.

15.2 **Description**

With this supplement the certificate is changed to Directive 2014/34/EU.
(Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

Description of the product:

The keyboard is used for input of data and commands and is designed for mounting into a panel or desk enclosure.
The keyboard consists of a printed circuit board which is fixed behind a light metal plate and protected by a metal cover. The light metal plate has openings for the operation of switching elements and a plastic foil at the front side.
The connection is made by a permanently connected cable (length ca. 1.5 m).

Reasons for the supplement:

- Change to Directive 2014/34/EU
- Assessment of the keyboard for accordance with the current standard versions
- Modified components and layout
- The manufacturer's address was changed.

Listing of all components used referring to older standards:

None

15.3 **Parameters**

15.3.1 Intrinsically safe supply circuit
Wires yellow (+5V), white (Clock), brown (Data), green (Ground)

Maximum input voltage	U_i	DC	6	V
Maximum input current	I_i		350	mA
Maximum input power	P_i		1.2	W
Effective internal capacitance	C_i		14	µF
Effective internal inductance	L_i			negligible

15.3.2 Ambient temperature range T_a -10 °C up to 60 °C

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

16 **Report Number**

BVS PP 06.2071 EU, as of 2016-09-16

17 **Special Conditions for Use**

None

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 EXAM GmbH
Bochum, dated 2016-09-16
BVS-Le/Nu A 20160068

Certifier

Approver

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

3.2 KBD(i)-***-PS2-** keyboard version

EXAM
BBG Prüf- und Zertifizier GmbH

Translation

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

(2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use in potentially explosive atmospheres

(3) **BVS 07 ATEX E 019**

(4) **Equipment:** **Keyboard Typ KBD(i)-***-PS2-****

(5) **Manufacturer:** **R. STAHL HMI Systems GmbH**

(6) **Address:** **50767 Köln, 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 07.2012 EG.

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

EN 60079-0:2004 General requirements
EN 60079-11:2007 Intrinsic safety ´i´

(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 Ex ib IIC T4

EXAM BBG Prüf- und Zertifizier GmbH
Bochum, dated 12. February 2007

Signed: Dr. Jockers
Certification body

Signed: Dr. Eickhoff
Special services unit

Page 1 of 2 to BVS 07 ATEX E 019
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Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail ZS@bg-exam.de

EXAM
BBG Prüf- und Zertifizier GmbH

(13) Appendix to

(14) # EC-Type Examination Certificate

BVS 07 ATEX E 019

(15) 15.1 Subject and type

Keyboard type KBD(i)-***-PS2-**
Instead of the *** in the complete denomination letters and numerals will be inserted which characterize different modifications; those modifications have no influence on explosion protection.

15.2 Description
The keyboard is used for input of data and commands and is designed for mounting in a panel.
The keyboard consist of a pc board, which is fixed behind a light metal plate and protected by a metal cover; the light metal plate has openings for the operation of switching elements and a a plastic foil at the front side.

15.3 Parameters

Voltage	Ui	DC 6	V
Current	Ii	350	mA
Power	Pi	1,2	W
Max. internal capacitance	Ci	25	µF
Max. internal inductivitance	Li	negligible	
Ambient temperature range	Ta	-10 °C up to +60 °C	

(16) Test and assessment report
BVS PP 07.2012 EG as of 12.02.2007

(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, 12.02.2007
BVS-Schu/Mi A 20070050

EXAM BBG Prüf- und Zertifizier GmbH

Certification body

Special services unit

Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail ZS@bg-exam.de

3.2.1 1. Supplement

DEKRA

Translation

1st Supplement

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

to the EC-Type Examination Certificate
BVS 07 ATEX E 019

Equipment:	**Keyboard type KBD(i)-***-PS2-**
Manufacturer:	**R. STAHL HMI Systems GmbH**
Address:	**50767 Cologne, Germany**

Description
The keyboard will be modified and only be manufactured 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 60079-11:2007 Intrinsic safety 'i'

The marking of the equipment shall include the following:

II 2G Ex ib IIC T4

Parameters

Voltage	Ui	DC 6	V
Current	Ii	350	mA
Power	Pi	1.2	W
Max. Capacitance	Ci	25	µF
Max. Inductance	Li	negligible	
Ambient temperature range	Ta	-10 °C up to +60 °C	

Special conditions for safe use
None

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com

DEKRA

Test and assessment report
BVS PP 07.2012 EG as of 16.06.2008

DEKRA EXAM GmbH
Bochum, dated 16. June 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, 16. June 2008
BVS-Schu/Sz A 20080358

DEKRA EXAM GmbH

Certification body

Special services unit

3.2.2 2. Supplement

DEKRA

Translation

2nd Supplement

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

to the EC-Type Examination Certificate
BVS 07 ATEX E 019

Equipment: **Keyboard type KBD(i)-***-PS2-****

Manufacturer: **R. STAHL HMI Systems GmbH**

Address: **50767 Cologne, Germany**

Description
The circuitry of the keyboard has been modified and the apparatus has been tested according to the standards EN 60079-0:2009 and EN 61241-11:2006.

The Essential Health and Safety Requirements of the modified equipment are assured by compliance with:
EN 60079-0:2009 General requirements
EN 60079-11:2007 Intrinsic safety 'i'
EN 61241-11:2006 Protection by Intrinsic safety 'iD'

The marking of the equipment shall include the following:

II 2G Ex ib IIC T4 Gb
II 2D Ex ib IIIB T90°C Db

Special conditions for safe use
None

Test and assessment report
BVS PP 07.2012 EG as of 30.08.2010

DEKRA EXAM GmbH
Bochum, dated 30th August 2010

Signed:Hans Christian Simanski — Certification body

Signed: Dr. Franz 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, 30.08.2010
BVS-Schu/Ar A 20100444

DEKRA EXAM GmbH

Certification body

Special services unit

Page 1 of 1 to BVS 07 ATEX E 019 / N2
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3.3 KBDi-JS2-PS2-** keyboard version

Translation

1 # EU-Type Examination Certificate

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

3 EU-Type Examination Certificate Number: **BVS 16 ATEX E 122**

4 Product: **Keyboard type KBDi-JS2-PS2-****

5 Manufacturer: **R. STAHL HMI Systems GmbH**

6 Address: **Adolf-Grimme Allee 8, 50829 Köln, Germany**

7 This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA EXAM 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 16.2205 EU.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012 + A11:2013 **General requirements**
EN 60079-11:2012 **Intrinsic Safety "i"**

10 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.

11 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.

12 The marking of the product shall include the following:

Ex **II 2G Ex ib IIC T4 Gb**

DEKRA EXAM GmbH
Bochum, 2016-12-08

Signed: Jörg Koch
Certifier

Signed: Dr. Michael Wittler
Approver

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 16 ATEX E 122

15 **Product description**

15.1 **Subject and type**

Keyboard type KBDi-JS2-PS2-**

The asterisks are replaced by letters to mark different country-specific keyboard-designs. These differences have no relevance for explosion protection.

15.2 **Description**

The keyboard type KBDi-JS2-PS2-** is used for input of data and commands via buttons and a joystick. It is designed for use in areas requiring EPL Gb.

The keyboard consists of a printed circuit board which is fixed behind a light metal plate and protected by a metal cover; the light metal plate has openings for the operation of the switching elements and a plastic foil at the front side.
The connection is made via a permanently connected cable (length 1.6 m).

Listing of all components used referring to older standards

None

15.3 **Parameters**

Maximum input voltage	U_i	DC	6 V
Maximum input current	I_i		350 mA
Maximum input power	P_i		1.2 W
Effective internal capacitance	C_i		25 µF
Effective internal inductance	L_i		negligible
Ambient temperature range	T_a		-10 °C up to +60 °C

16 **Report Number**

BVS PP 16.2205 EU, as of 2016-12-08

17 **Special Conditions for Use**

None

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 EXAM GmbH
Bochum, dated 2016-12-08
BVS-Le/Nu A 20160583

Certifier Approver

DEKRA EXAM GmbH, Dinnendahlstrasse 9, 44809 Bochum, Germany,
telephone +49.234.3696-105, Fax +49.234.3696-110, zs-exam@dekra.com

4 IECEx certificate

4.1 KBD(i)-PS2-** keyboard version

4.1.1 Issue No 0

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 BVS 06.0015** Issue No.: **0**

Status: **Current**

Date of Issue: **2006-10-11** Page **1** of **3**

Applicant: **R. Stahl HMI Systems GmbH**
Im Gewerbegebiet Pesch 14
50767 Köln
Germany

Electrical Apparatus: **Keyboard type KBD(i)-PS2-******
Optional accessory:

Type of Protection: **Intrinsic safety**

Marking: **Ex ib IIC T4**

Approved for issue on behalf of the IECEx Certification Body: Dr. R. Jockers

Position: Head of Certification Body

Signature:
(for printed version)

Date: 11.10.2006

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:

EXAM BBG Prüf- und Zertifizier GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

EXAM
BBG Prüf- und Zertifizier GmbH

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 06.0015**

Date of Issue: **2006-10-11** Issue No.: **0**

Page **2** of **3**

Manufacturer: **R. Stahl HMI Systems GmbH**
Im Gewerbegebiet Pesch 14
50767 Köln
Germany

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 manufacture'rs 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 electrical 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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

*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:

DE/BVS/ExTR06.0047/00

Quality Assessment Report:

DE/BVS/QAR06.0007/01

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 06.0015**

Date of Issue: **2006-10-11** Issue No.: **0**

Page **3** of **3**

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

Product description

Keyboard type KBD(i)-***-PS2-***
Instead of the *** in the complete denomination letters and numerals will be inserted which characterize different modifications; those modifications have no influence on explosion protection.

The keyboard is used for input of data and commands and is designed for mounting in a panel.

Parameters

Voltage	Ui	DC	6	V
Current	Ii		350	mA
Power	Pi		1,2	W
Max. internal capacitance	Ci		14	µF
Max. internal inductance	Li		negligible	
Ambient temperature range	Ta	-10 °C up to +60 °C		

CONDITIONS OF CERTIFICATION: NO

4.1.2 Issue No 1

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 BVS 06.0015	Issue No: 1	Certificate history:
Status:	**Current**	Page 1 of 4	Issue No. 2 (2016-09-20) Issue No. 1 (2011-07-20) Issue No. 0 (2006-10-11)
Date of Issue:	**2011-07-20**		
Applicant:	**R. Stahl HMI Systems GmbH** Im Gewerbegebiet Pesch 14 50767 Köln **Germany**		
Equipment: *Optional accessory:*	**Keyboard type KBD(i)-PS2-******		
Type of Protection:	**Intrinsic safety**		
Marking:	Ex ib IIC T4		

Approved for issue on behalf of the IECEx Certification Body: H.-Ch. Simanski

Position: Head of Certification Body

Signature:
(for printed version)

Date:

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:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA EXAM GmbH

IECEx Certificate of Conformity

Certificate No:	IECEx BVS 06.0015	Issue No: 1
Date of Issue:	**2011-07-20**	Page 2 of 4
Manufacturer:	**R. Stahl HMI Systems GmbH** Im Gewerbegebiet Pesch 14 50767 Köln **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 electrical 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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'

*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:

DE/BVS/ExTR06.0047/00

Quality Assessment Report:

DE/BVS/QAR10.0002/01

IECEx Certificate of Conformity

Certificate No: IECEx BVS 06.0015 Issue No: 1

Date of Issue: **2011-07-20** Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Product description

Keyboard type KBD(i)-***-PS2-***
Instead of the *** in the complete denomination letters and numerals will be inserted which characterize different modifications; those modifications have no influence on explosion protection.

The keyboard is used for input of data and commands and is designed for mounting in a panel.

Parameters

Voltage	Ui	DC	6	V
Current	Ii		350	mA
Power	Pi		1,2	W
Max. internal capacitance	Ci		14	µF
Max. internal inductance	Li		negligible	
Ambient temperature range	Ta	-10 °C up to +60 °C		

CONDITIONS OF CERTIFICATION: NO

IECEx Certificate of Conformity

Certificate No:	IECEx BVS 06.0015	Issue No: 1
Date of Issue:	**2011-07-20**	Page 4 of 4

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

Details of changes for issues 1 and above:

This new issue of the Certificate is to cover a change in the ExCB for conducting surveillance assessment and issuing of QARs.

4.1.3 Issue No 2

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 BVS 06.0015	Issue No: 2	Certificate history:
			Issue No. 2 (2016-09-20)
Status:	**Current**	Page 1 of 5	Issue No. 1 (2011-07-20)
			Issue No. 0 (2006-10-11)
Date of Issue:	**2016-09-20**		
Applicant:	**R. Stahl HMI Systems GmbH** Adolf-Grimme Allee 8 50829 Köln **Germany**		
Equipment: *Optional accessory:*	**Keyboard type KBD(i)-PS2-*****		
Type of Protection:	**Equipment protection by intrinsic safety "i"**		
Marking:	Ex ib IIC T4 Gb		

Approved for issue on behalf of the IECEx Certification Body: J. Koch

Position: Head of Certification Body

Signature:
(for printed version)

Date:

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:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

IECEx Certificate of Conformity

Certificate No:	IECEx BVS 06.0015	Issue No: 2
Date of Issue:	**2016-09-20**	Page 2 of 5
Manufacturer:	**R. Stahl HMI Systems GmbH** Adolf-Grimme Allee 8 50829 Köln **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 electrical 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 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:

DE/BVS/ExTR06.0047/01

Quality Assessment Report:

DE/BVS/QAR06.0007/08

IECEx Certificate of Conformity

Certificate No: IECEx BVS 06.0015 Issue No: 2

Date of Issue: **2016-09-20** Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Subject and Type

Keyboard type KBD(i)-PS2-***

In the complete type denomination, the asterisks are replaced by letters or numbers to identify different variations. These variations have no influence on explosion protection.
Note: The former type designation KBD(i)-***-PS2-*** was reduced: As the first 3 asterisks in the type key are not filled, they are deleted from the denomination.

Description

The keyboard is used for input of data and commands and is designed for mounting into a panel or desk enclosure.
The keyboard consists of a printed circuit board which is fixed behind a light metal plate and protected by a metal cover. The light metal plate has openings for the operation of switching elements and a plastic foil at the front side.
The connection is made by a permanently connected cable (length ca. 1.5 m).

Listing of all components used referring to older Standards

None

CONDITIONS OF CERTIFICATION: NO

IECEx Certificate of Conformity

Certificate No: IECEx BVS 06.0015 Issue No: 2

Date of Issue: **2016-09-20** Page 4 of 5

EQUIPMENT (continued):

Parameters

Intrinsically safe supply circuit

Wires yellow (+5V), white (Clock), brown (Data), green (Ground)

Maximum input voltage	U_i	DC	6	V
Maximum input current	I_i		350	mA
Maximum input power	P_i		1.2	W
Effective internal capacitance	C_i		14	µF
Effective internal inductance	L_i			negligible
Ambient temperature range	T_a		-10 °C up to 60 °C	

IECEx Certificate of Conformity

Certificate No: IECEx BVS 06.0015 Issue No: 2

Date of Issue: **2016-09-20** Page 5 of 5

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

•Assessment of the keyboard for accordance with the current standard Versions
• Modified components and layout
• Additionally, the applicant's address was changed.

4.2 KBD(i)-***-PS2-** keyboard version

4.2.1 Issue No 0

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 BVS 07.0002** Issue No.: **0**

Status: **Current**

Date of Issue: **2007-02-26** Page **1** of **3**

Applicant: **R. STAHL HMI Systems GmbH**
Im Gewerbegebiet Pesch 14
50767 Cologne
Germany

Electrical Apparatus: **Keyboard type KBD(i)-TB-PS2-*** and type KBD(i)-JS-PS2-*****
Optional accessory:

Type of Protection: **Intrinsic safety "i"**

Marking: **Ex ib IIC T4**

Approved for issue on behalf of the IECEx Certification Body: Dr. R. Jockers

Position: Head of Certification Body

Signature:
(for printed version)

Date: 26.02.2007

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:

EXAM BBG Prüf- und Zertifizier GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

EXAM
BBG Prüf- und Zertifizier GmbH

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 07.0002**

Date of Issue: **2007-02-26** Issue No.: **0**

Page **2** of **3**

Manufacturer: **R. STAHL HMI Systems GmbH**
Im Gewerbegebiet Pesch 14
50767 Cologne
Germany

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 manufacture'rs 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 electrical 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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:

DE/BVS/ExTR07.0002/00

Quality Assessment Report:

DE/BVS/QAR06.0007/01

IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 07.0002**

Date of Issue: **2007-02-26** Issue No.: **0**

Page **3** of **3**

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

Description
The keyboard is used for input of data and commands and is designed for mounting in a panel.
The keyboard consist of a pc board, which is fixed behind a light metal plate and protected by a metal cover; the light metal plate has openings for the operation of switching elements and a plastic foil at the front side.

Type
Keyboard type KBD(i)-***-PS2-***
Instead of the *** in the complete denomination letters and numerals will be inserted which characterize different modifications; those modifications have no influence on explosion protection.

Parameters

Voltage	Ui	DC	6	V
Current	Ii		350	mA
Power	Pi		1.2	W
Max. internal capacitance	Ci		25	µF
Max. internal inductance	Li		negligible	
Ambient temperature range	Ta		-10 °C up to +60 °C	

CONDITIONS OF CERTIFICATION: NO

4.2.2 Issue No 1

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 BVS 07.0002 issue No.:1	Certificate history: Issue No. 1 (2008-6-16) Issue No. 0 (2007-2-26)
Status:	**Current**	
Date of Issue:	**2008-06-16** Page 1 of 4	
Applicant:	**R. STAHL HMI Systems GmbH** Im Gewerbegebiet Pesch 14 50767 Cologne **Germany**	
Electrical Apparatus: *Optional accessory:*	**Keyboard type KBD(i)-***-PS2-***	
Type of Protection:	**Intrinsic safety "i"**	
Marking:	**Ex ib IIC T4**	
Approved for issue on behalf of the IECEx Certification Body:	Dr. R. Jockers	
Position:	Head of Certification Body	
Signature: *(for printed version)*	Jockers	
Date:	16.06.2008	

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:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
DEKRA EXAM GmbH

IECEx Certificate of Conformity

Certificate No.: IECEx BVS 07.0002

Date of Issue: **2008-06-16** Issue No.: **1**

Page 2 of 4

Manufacturer: **R. STAHL HMI Systems GmbH**
Im Gewerbegebiet Pesch 14
50767 Cologne
Germany

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 electrical 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 : 2004 Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:

DE/BVS/ExTR07.0002/00
DE/BVS/ExTR07.0002/01

Quality Assessment Report:
DE/BVS/QAR06.0007/02

IECEx Certificate of Conformity

Certificate No.: IECEx BVS 07.0002

Date of Issue: **2008-06-16** Issue No.: **1**

Page 3 of 4

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

Description
The keyboard is used for input of data and commands and is designed for mounting in a panel.
The keyboard consist of a pc board, which is fixed behind a light metal plate and protected by a metal cover; the light metal plate has openings for the operation of switching elements and a plastic foil at the front side.

Type
Keyboard type KBD(i)-***-PS2-***
Instead of the *** in the complete denomination letters and numerals will be inserted which characterize different modifications; those modifications have no influence on explosion protection.

Parameters

Voltage	Ui	DC	6	V
Current	Ii		350	mA
Power	Pi		1.2	W
Max. internal capacitance	Ci		25	µF
Max. internal inductance	Li		negligible	
Ambient temperature range	Ta		-10 °C up to +60 °C	

CONDITIONS OF CERTIFICATION: NO

IECEx Certificate of Conformity

Certificate No.: IECEx BVS 07.0002

Date of Issue: **2008-06-16** Issue No.: **1**

Page 4 of 4

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

Changes for issue 1
The keyboard has got a modified circuitry.

4.3 KBDi-JS2-PS2-** keyboard version

4.3.1 Issue No 0

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 BVS 16.0088 issue No.:0	Certificate history:
Status:	**Current**	
Date of Issue:	**2016-12-12** Page 1 of 4	
Applicant:	**R. STAHL HMI Systems GmbH** Adolf-Grimme Allee 8 50829 Köln **Germany**	
Equipment: *Optional accessory:*	**Keyboard type KBDi-JS2-PS2-****	
Type of Protection:	**Equipment protection by intrinsic safety "i"**	
Marking:	Ex ib IIC T4 Gb	
Approved for issue on behalf of the IECEx Certification Body:	J. Koch	
Position:	Head of Certification Body	
Signature: *(for printed version)*		
Date:	12.12.16	

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:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
On the safe side.

IECEx Certificate of Conformity

Certificate No.: IECEx BVS 16.0088

Date of Issue: **2016-12-12** Issue No.: **0**

Manufacturer: **R. STAHL HMI Systems GmbH**
Adolf-Grimme Allee 8
50829 Köln
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 electrical 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 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

*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:
DE/BVS/ExTR16.0087/00

Quality Assessment Report:

DE/BVS/QAR06.0007/08

IECEx Certificate of Conformity

Certificate No.: IECEx BVS 16.0088

Date of Issue: **2016-12-12** Issue No.: **0**

Page 3 of 4

Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

Subject and Type

Keyboard type KBDi-JS2-PS2-**
The asterisks are replaced by letters to mark different country-specific keyboard-designs. These differences have no relevance for explosion protection.

Description

The keyboard type KBDi-JS2-PS2-** is used for input of data and commands via buttons and a joystick. It is designed for use in areas requiring EPL Gb.
The keyboard consists of a printed circuit board which is fixed behind a light metal plate and protected by a metal cover; the light metal plate has openings for the operation of the switching elements and a plastic foil at the front side.
The connection is made via a permanently connected cable (length 1.6 m).

Listing of all components used referring to older Standards

None

SPECIFIC CONDITIONS OF USE: NO

IECEx Certificate of Conformity

Certificate No.: IECEx BVS 16.0088

Date of Issue: **2016-12-12** Issue No.: **0**

EQUIPMENT(continued):

Parameters

Maximum input voltage	U_i DC	6	V
Maximum input current	I_i	350	mA
Maximum input power	P_i	1.2	W
Effective internal capacitance	C_i	25	µF
Effective internal inductance	L_i		negligible
Ambient temperature range	T_a	-10 °C up to +60 °C	

5 EAC certificate

Russia / Kazakh / Belarus certification

5.1 KBD(i)-PS2-** keyboard version

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

СЕРТИФИКАТ СООТВЕТСТВИЯ

EAC

№ ЕАЭС RU C-DE.HA91.B.00085/19

Серия RU № 0110932

ОРГАН ПО СЕРТИФИКАЦИИ Орган по сертификации продукции Общества с ограниченной ответственностью Сертификационный центр «ЭНДЬЮРЕНС». Место нахождения (адрес юридического лица) и адрес места осуществления деятельности: 115114, Россия, город Москва, 2-й Павелецкий проезд, дом 5, строение 1, этаж 5, помещение VII, комната 11. Регистрационный номер аттестата аккредитации RA.RU.11HA91, дата регистрации аттестата аккредитации 23.11.2018; номер телефона: +7 (495) 799-07-93; адрес электронной почты: info@ccendce.com

ЗАЯВИТЕЛЬ Общество с ограниченной ответственностью «Р. ШТАЛЬ». Место нахождения (адрес юридического лица) и адрес места осуществления деятельности: 129085, Россия, город Москва, Звёздный бульвар, дом 21, строение 1. Основной государственный регистрационный номер: 5087746541493, номер телефона: +7(495)615-04-73, адрес электронной почты: info@stahl.ru.com.

ИЗГОТОВИТЕЛЬ R. STAHL HMI Systems GmbH. Место нахождения (адрес юридического лица) и адрес места осуществления деятельности по изготовлению продукции: Adolf-Grimme-Allee 8, 50829 Koeln, Германия.

ПРОДУКЦИЯ Терминалы управления серий ET и MT во взрывозащищенном исполнении. Продукция изготовлена в соответствии с технической документации предприятия-изготовителя R. STAHL HMI Systems GmbH.
Серийный выпуск.

КОД ТН ВЭД ЕАЭС 8537 10 990 0

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ Технического регламента Таможенного союза ТР ТС 012/2011 "О безопасности оборудования для работы во взрывоопасных средах".

СЕРТИФИКАТ СООТВЕТСТВИЯ ВЫДАН НА ОСНОВАНИИ Протокола испытаний № А0025.1.СТ/19 от 25.10.2019 г. Испытательный центр промышленной продукции Федерального государственного унитарного предприятия "Российский федеральный ядерный центр - Всероссийский научно-исследовательский институт экспериментальной физики" (ФГУП "РФЯЦ-ВНИИЭФ"), аттестат аккредитации № RA.RU.21ME17; Акта о результатах анализа состояния производства № 0084-СС/А от 11.09.2019; документов предоставленных заявителем в качестве доказательства соответствия требованиям ТР ТС 012/2011: Инструкции по эксплуатации OI_ET_xx6_A, OI_MT_xx6_A, комплект чертежей и электрических схем.
Схема сертификации 1с.

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Стандарты, в результате применения которых на добровольной основе обеспечивается соблюдение требований технического регламента, указаны в Приложении (бланк № 0708284). Условия хранения, назначенный срок хранения и назначенный срок службы согласно эксплуатационной документации изготовителя. Описание конструкции и средств обеспечения взрывозащиты, а также иная информация, идентифицирующая продукцию, указаны в Приложении (бланки № 0708285, 0708286, 0708287).

СРОК ДЕЙСТВИЯ С 25.11.2019 **ПО** 24.11.2024
ВКЛЮЧИТЕЛЬНО

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Ворвейко Татьяна Юрьевна (Ф.И.О.)

М.П.

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Хлопин Станислав Юрьевич (Ф.И.О.)

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

ПРИЛОЖЕНИЕ

К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ЕАЭС RU C-DE.HA91.B.00085/19

Серия RU № 0708284

Сведения о стандартах, применяемых на добровольной основе для соблюдения требований технического регламента Таможенного союза ТР ТС 012/2011 "О безопасности оборудования для работы во взрывоопасных средах"

Обозначение стандартов	Наименование стандартов
ГОСТ 31610.0-2014 (IEC 60079-0:2011)	Взрывоопасные среды. Часть 0. Оборудование. Общие требования.
ГОСТ IEC 60079-1-2011	Взрывоопасные среды. Часть 1. Оборудование с видом взрывозащиты "взрывонепроницаемые оболочки "d"
ГОСТ 31610.7-2012/ IEC 60079-7:2006	Электрооборудование для взрывоопасных газовых сред. Часть 7. Повышенная защита вида "e"
ГОСТ 31610.11-2014 (IEC 60079-11:2011)	Взрывоопасные среды. Часть 11 Оборудование с видом взрывозащиты "искробезопасная электрическая цепь "i"
ГОСТ 31610.15-2014/IEC 60079-15:2010	Взрывоопасные среды. Часть 15. Оборудование с видом взрывозащиты "n"
ГОСТ Р МЭК 60079-18-2012	Взрывоопасные среды. Часть 18. Оборудование с видом взрывозащиты "герметизация компаундом "m"
ГОСТ 31610.28-2012/IEC 60079-28:2006	Взрывоопасные среды. Часть 28. Защита оборудования и передающих систем, использующих оптическое излучение
ГОСТ IEC 60079-31-2013	Взрывоопасные среды. Часть 31. Оборудование с защитой от воспламенения пыли оболочками "t"

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Вервейко Татьяна Юрьевна (Ф.И.О.)

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Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Хлопцов Станислав Юрьевич (Ф.И.О.)

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

ПРИЛОЖЕНИЕ

К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ЕАЭС RU C-DE.HA91.B.00085/19

Серия RU № 0708285

1. НАЗНАЧЕНИЕ И ОБЛАСТЬ ПРИМЕНЕНИЯ

Терминалы управления серий ET и MT во взрывозащищенном исполнении (далее по тексту - терминалы) предназначены для приема входных сигналов, визуального отображения их на экране дисплея, задания оператором необходимых параметров, передачи полученных данных и заданий оператора в систему управления технологическими процессами.

Область применения – взрывоопасные зоны помещений и наружных установок, в соответствии с присвоенной маркировкой взрывозащиты, требованиями ГОСТ IEC 60079-14-2013 и отраслевых Правил безопасности, регламентирующих применение данного оборудования во взрывоопасных зонах.

2. ОСНОВНЫЕ ТЕХНИЧЕСКИЕ ДАННЫЕ

2.1 Структура условного обозначения терминалов:

ET-**6-A-*-***

- тип терминала (ET для применения в зоне 1, 21; MT для применения в зоне 2, 22);
- тип операционной системы (3=EAGLE (операционная система STAHL); 4=OPEN HMI (Windows, Linux OS); 5=REMOTE HMI (Windows);
- размер дисплея (0=10″ VGA дисплей; 1=10″ SVGA дисплей; 3=15″ дисплей; 5=19″ дисплей);
- 6 - фиксированный код типа;
- A - версия аппаратного обеспечения;
- Ethernet-интерфейс (FX – волоконно-оптический кабель; TX – кабель с медными жилами);
- дополнительные символы, не влияющее на конструкцию и средства обеспечения взрывозащиты.

2.2 Основные технические данные терминалов приведены в таблице 2.1.

Таблица 2.1

Наименование параметра	Значение
Маркировка взрывозащиты по ГОСТ 31610.0-2014 (IEC 60079-0:2011):	
- терминалы управления типа ET-**6-A-TX	1Ex d e ia ib mb [ia ib] IIC T4 Gb X Ex ia tb [ia ib] IIIC T80°C Db
- терминалы управления типа ET-**6-A-FX	1Ex d e ia ib mb [ia ib op is] IIC T4 Gb X Ex ia tb [ia ib op is] IIIC T80°C Db
- терминалы управления типа MT-**6-A-TX	2Ex d e ia ib mb nA [ib Gb] [ic] IIC T4 Gc X Ex ia tc [ib Db] [ic] IIIC T80°C Dc
- терминалы управления типа MT-**6-A-FX	2Ex d e ia ib mb nA [ib op is Gb] [ic] IIC T4 Gc X Ex ia tc [ib op is Db] [ic] IIIC T80°C Dc
- клавиатура типа KBD(i)-PS2-***	1Ex ib IIC T4 Gb
Напряжение питания постоянного тока, В	24
Ток, А	1,5
Внешний искробезопасный оптоволоконный интерфейс (оптоволоконный кабель (X10):	
- длина волны, нм	1350
- мощность излучения, не более, мВт	35
Степень защиты обеспечиваемая оболочкой от внешних воздействий по ГОСТ 14254-2015 (IEC 60529:2013)	IP66
Диапазон температуры окружающей среды при эксплуатации, °С:	
- терминалы управления типа ET-xx6-A-*, MT-xx6-A-*	от минус 20 до плюс 55
- лицевая панель терминала управления типа ET-xx6-A-*, MT-xx6-A-*	от минус 30 до плюс 55
- Клавиатура типа KBD(i)-PS2-***	от минус 10 до плюс 60

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ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

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2.3 Параметры искробезопасных электрических цепей приведены в таблице 2.2.

Таблица 2.2

Наименование модуля, цепи и обозначение клеммного терминала	Ui/Uo, В	Ii/Io, А	Pi/Po, Вт	Ci/Li мкФ/мГн	Co/Lo мкФ/мГн	
					Подгруппа IIC	Подгруппа IIB
USB-0 (X4), USB-2 (X6)	-/5,9	-/2,69	-/6,02	0/0	5,1/0,01 11/0,005 28/0,002 40/0,001	14/0,05 40/0,02 79/0,01 200/0,005
Считывающее устройство RSi1 (X8) +Uint 1 (цепь электропитания, X8.0, при перемычке после X8.2)	-/10,4	-/0,22	-/2,29	1,72/0	0,8/0,01	-
Считывающее устройство RSi1 (X8) +U_ex1 (цепь электропитания, X8.2, при перемычке X8.0)	12,4/-	0,22/-	2,29/-	0,025/0	-	-
Считывающее устройство RSi1 (электропитание считывающего устройства, X8.3-4)	-/5,36	-/0,22	-/1,18	5,3/0	40,7/0,002 59,7/0,001	70,7/0,02 124,7/0,01
Считывающие устройства RSi1 и RSi2 (сигнальные входы и выходы, X8.5-8)	15/5,36	0,5/0,046	2,5/0,062	0/0	46/0,002	79/0,02
Считывающее устройство WCR1 (X8) (подключение напряжения питания, X8.1-2)	11,4/-	0,2/-	2,28/-	0,025/0	-	-
Считывающее устройство WCR1 (электропитание считывающего устройства, X8.3-4)	-/5,88	-/0,2	-/1,18	5,3/0	27,7/0,002 37,7/0,001	55,7/0,02 94,7/0,01
Считывающие устройства WCR1 и WCR2 (сигнальные входы и выходы, X8.5-8)	15/5,88	0,5/0,051	2,5/0,075	0/0	34/0,002	63/0,02
Интерфейс PS2 (клавиатура типа KBD(i) (X9)	-/5,88	-/0,2	-/1,18	17,6/0	15,4/0,002 25,4/0,001	10,4/0,1 20,4/0,05 43,4/0,02 82,4/0,01
Клавиатура типа KBD(i)-PS2-***	-/6	-/0,35	-/1,2	14/0	-	-

3. ОПИСАНИЕ КОНСТРУКЦИИ И СРЕДСТВ ОБЕСПЕЧЕНИЯ ВЗРЫВОЗАЩИТЫ

3.1 Описание конструкции

Конструктивно терминалы управления выполнены в виде единого блока. Внутри корпуса размещены платы электронной схемы и вспомогательные устройства. Устройство подсветки экрана, плата интерфейсов и другие электронные компоненты, размещены непосредственно в основном корпусе. На передней панели корпуса размещена клавиатура и имеется окно для экрана сенсорного дисплея, на задней стенке выполнено отделение для размещения клеммных терминалов и установки кабельных вводов.

3.2 Описание средств обеспечения взрывозащиты

Взрывозащищенность терминалов управления в зависимости от исполнения обеспечивается видом взрывозащиты "взрывонепроницаемые оболочки "d" по ГОСТ IEC 60079-1-2011, "повышенная защита вида "e" по ГОСТ 31610.7-2012/ IEC 60079-7:2006, "искробезопасная электрическая цепь "i" по ГОСТ 31610.11-2014 (IEC 60079-11:2011), оборудование с видом взрывозащиты "n" по ГОСТ 31610.15-2014/IEC 60079-15:2010, "герметизация компаундом "m" по ГОСТ Р МЭК 60079-18-2012, защита оборудования и передающих систем, использующих оптическое излучение по ГОСТ 31610.28-2012/IEC 60079-28:2006, оборудование с защитой от воспламенения пыли оболочками "t" по ГОСТ IEC 60079-31-2013, а также выполнением конструкции в соответствии с требованиями ГОСТ 31610.0-2014 (IEC 60079-0:2011).

4. СПЕЦИАЛЬНЫЕ УСЛОВИЯ ПРИМЕНЕНИЯ «X»

Знак «X» в маркировке взрывозащиты терминалов управления указывает на их специальные условия применения, заключающиеся в следующем:

– элементы и схемы, обеспечивающие искробезопасное исполнение, ремонту не подлежат и при выходе из строя должны заменяться новыми, поставляемыми изготовителем;

– при подключении заземления должно быть обеспечено уравнивание потенциалов между всеми блоками, объединенными в единую искробезопасную цепь;

– чистку от нанесенной на дисплеи терминалов защитной пленки разрешается производить только с помощью влажной ветоши;

– монтаж, эксплуатация и техническое обслуживание должно осуществляться в соответствии с требованиями эксплуатационной документации, ГОСТ IEC 60079-14-2013 и другими нормативными документами, регламентирующими правила по установке и обслуживанию оборудования для использования в потенциально взрывоопасных зонах (средах).

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ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

ПРИЛОЖЕНИЕ

К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ЕАЭС RU C-DE.HA91.B.00085/19

Серия RU № 0708287

5. МАРКИРОВКА

Маркировка, наносимая на оборудование, должна включать следующие данные:

- наименование изготовителя или его зарегистрированный товарный знак;
- наименование изделия, маркировку взрывозащиты, предупредительные надписи;
- диапазон температур окружающей среды при эксплуатации;
- единый знак обращения продукции на рынке Евразийского экономического союза, утвержденный Решением Комиссии Таможенного союза от 15.07.2011 № 711, при условии соответствия оборудования требованиям всех Технических регламентов Таможенного союза и Технических регламентов ЕАЭС, действие которых распространяется на заявленное оборудование;
- специальный знак взрывобезопасности «Ex», согласно Приложению 2 Технического регламента Таможенного союза 012/2011 «О безопасности оборудования для работы во взрывоопасных средах»;
- дату выпуска и порядковый номер изделия по системе нумерации предприятия-изготовителя;
- номер сертификата соответствия и наименование органа по сертификации;
- другие данные, которые должен отразить изготовитель, если это требуется технической документацией.

Внесение в конструкцию и техническую документацию изменений, влияющих на показатели взрывобезопасности оборудования, должны быть согласованы с ОС ООО СЦ «ЭНДЬЮРЕНС».

СЕРТИФИКАЦИОННЫЙ ЦЕНТР

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Верейкина Татьяна Юрьевна (Ф.И.О.)

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5.2 Declaration of conformity

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ
ДЕКЛАРАЦИЯ О СООТВЕТСТВИИ

Заявитель: Общество с ограниченной ответственностью «Р. ШТАЛЬ».
Основной государственный регистрационный номер: 5087746541493.
Место нахождения (адрес юридического лица) и адрес (адреса) места осуществления деятельности: 129085, Россия, Бульвар звездный, дом 21, строение 1; номер телефона: +74956150473, адрес электронной почты: info@stahl.ru.com.

в лице генерального директора Махмудова Александра Джамаледдиновича

заявляет, что Терминалы управления серий ET и MT: ET-**6-A-FX-***, ET-**6-A-TX-***, MT-**6-A-TX-***, MT-**6-A-FX-***

изготовитель: R.STAHL HMI Systems GmbH,
Место нахождения и адрес места осуществления деятельности по изготовлению продукции: Adolf-Grimme-Allee 8, 50829 Koeln, Германия.
Продукция изготовлена в соответствии с технической документацией изготовителя R.STAHL HMI Systems GmbH.
Код ТН ВЭД ЕАЭС: 8537109900
Серийный выпуск.

соответствует требованиям
Технического регламента Таможенного союза ТР ТС 020/2011 "Электромагнитная совместимость технических средств"

Декларация о соответствии принята на основании Протоколов заводских испытаний № 1156 от 02.08.2019, 1187 от 07.08.2019 испытательной лаборатории R.STAHL HMI Systems GmbH; руководства по эксплуатации.
Схема декларирования 1д.

Дополнительная информация
Стандарты, в результате применения которых на добровольной основе обеспечивается соблюдение требований технического регламента: раздел 8 ГОСТ 30804.6.2-2013 "Совместимость технических средств электромагнитная. Устойчивость к электромагнитным помехам технических средств, применяемых в промышленных зонах. Требования и методы испытаний"; раздел 7 ГОСТ 30804.6.4-2013 "Совместимость технических средств электромагнитная. Электромагнитные помехи от технических средств, применяемых в промышленных зонах. Нормы и методы испытаний". Условия хранения, срок хранения и срок службы в соответствии с эксплуатационной документацией изготовителя.

Декларация о соответствии действительна с даты регистрации по 08.09.2024 включительно.

"Р.ШТАЛЬ" R.STAHL

Махмудов Александр Джамаледдинович

(подпись) М.П. (Ф.И.О. заявителя)

Регистрационный номер декларации о соответствии: ЕАЭС № RU Д-DE.HA91.B.00014/19

Дата регистрации декларации о соответствии: 09.09.2019

EURASIAN ECONOMIC UNION
DECLARATION OF CONFORMITY

Applicant: Limited Liability Company «R.Stahl».
The main state registration number is 5087746541493.
Location (address of the legal entity) and the address of the place of business: 129085, Russia, Moscow, Zvezdny Boulevard, building 21, building 1; phone number: +74956150473, E-mail address: info@stahl.ru.com.

represented by General Director Makhmudov Alexander Dzhamaleddinovich

declares that Control terminals of series ET and MT: ET-**6-A-FX-***, ET-**6-A-TX-***, MT-**6-A-TX-***, MT-**6-A-FX-***

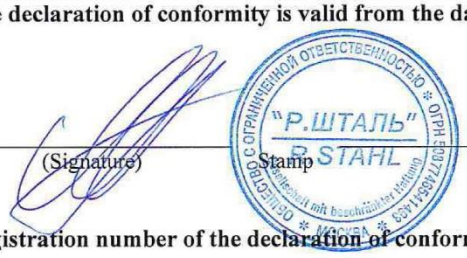
manufacturer: R.STAHL HMI Systems GmbH,
Location (address of the legal entity) and address of the place of business activity: Adolf-Grimme-Allee 8, 50829 Koeln, Germany.
Products manufactured in accordance with the technical documentation R.STAHL HMI Systems GmbH.
HS Code: 8537109900
Serial release.

meets the requirements
Technical Regulations of the Customs Union TR CU 020/2011 " Electromagnetic compatibility of technical means".

The declaration of conformity was adopted on the basis of Test Reports № 1156 от 02.08.2019, 1187 от 07.08.2019of the Testing Laboratory of the R.STAHL HMI Systems GmbH; operation manuals.
Declaration scheme 1d.

Additional Information
Standards, as a result of which voluntary compliance with technical regulation requirements is ensured: Section 8 GOST 30804.6.2-2013 "Electromagnetic compatibility of technical equipment. Immunity to electromagnetic interference of technical equipment used in industrial zones. Requirements and test methods"; Section 7 GOST 30804.6.4-2013 "Electromagnetic compatibility of technical equipment. Electromagnetic interference from technical equipment used in industrial zones. Standards and test methods." Storage conditions, shelf life and service life in accordance with the manufacturer's operational documentation.

The declaration of conformity is valid from the date of registration to 08.09.2024 inclusive.



(Signature) Stamp Makhmudov Alexander Dzhamaleddinovich (full name the Applicant)

Registration number of the declaration of conformity: ЕАЭС № RU Д-DE.HA91.B.00014/19

Date of registration of the declaration of conformity: 09.09.2019

6 CSA certificate

6.1 KBD(i)-JS-PS2-** keyboard version

CSA Group

Certificate of Compliance

Certificate: 2591397 **Master Contract:** 213004

Project: 2591397 **Date Issued:** July 29, 2013

Issued to: **R. STAHL HMI Systems GmbH**

Im Gewerbegebiet Pesch 14
Koeln, 50767
Germany
Attention: Mr. Werner Bertges

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.

C US

T. Munteanu

Issued by: T. Munteanu, P.Eng.

PRODUCTS

CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non - Incendive Systems - For Hazardous Locations

CLASS 2258 83 - PROCESS CONTROL EQUIPMENT-Intrinsically Safe and Non-Incendive - Systems-For Hazardous Locations-Certified to U.S. Standards

Class I, Division 2, Groups A, B, C and D;

Keyboard type KBD(i)-JS-PS2-cc, rated 5Vdc, 65mA. Temperature code T4,Ta: -10°C...+60°C. Non-Incendive with entity parameters Ui= 6V, Ii=350 mA, Pi=1.2W, Ci=25 µF, Li=0, when installed as per control drawing no. 2013 28 50 0 and manual.

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations

CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - - For Hazardous Locations - Certified to US Standards

Ex ib IIC T4 Gb

Class I, Zone 1, AEx ib IIC T4 Gb

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CSA Group

Certificate:	2591397	**Master Contract:**	213004
Project:	2591397	**Date Issued:**	July 29, 2013

Keyboard type KBD(i)-JS-PS2-cc, rated 5Vdc, 65mA. Temperature code T4, Ta: -10°C...+60°C. Intrinsically safe with entity parameters Ui= 6V, Ii=350 mA, Pi=1.2W, Ci=25 µF, Li=0, when installed as per control drawing no. 2013 28 50 0 and manual

Note: These products are certified as components of other equipment where the suitability of the combination is determined by CSA or the local inspection authority.

APPLICABLE REQUIREMENTS

CAN/CSA-C22.2 No. 0-10	General Requirements – Canadian Electrical Code, Part II
C22.2 No. 142-M1987	Process Control Equipment
C22.2 No. 213-M1987	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
UL 916 (4th Ed.)	Energy Management Equipment
ANSI/ISA-12.12.01-2012	Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
CAN/CSA-C22.2 No. 60079-0:11	Explosive atmospheres — Part 0: Equipment — General requirements
CAN/CSA-C22.2 No. 60079-11-11	Explosive atmospheres — Part 11: Equipment protection by intrinsic safety "i"
UL 60079-0 (Ed. 5)	Explosive atmospheres – Part 0: Equipment – General requirements
UL 60079-11	Explosive atmospheres — Part 11: Equipment protection by intrinsic safety "i"

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7 Release Notes

The chapter entitled "Release Notes" contains all the changes made in every version of the certificates.

Version 01.00.00

- First edition for KBDi keyboard versions

Version 01.00.01

- Addition of EC-Declaration of Conformity KBD(i)-PS2-** keyboard version
- Addition of EC-Declaration of Conformity KBD(i)-***-PS2-** keyboard version

Version 01.00.02

- Addition of TR (Russia / Kazakhstan / Belarus) certificate instead of GOST-R
- Removal of GOST-R certificate and operating licence

Version 01.00.03

- Changing of address and phone numbers
- Renew of EC-Declaration of Conformity KBD(i)-PS2-** keyboard version
- Renew of EC-Declaration of Conformity KBD(i)-***-PS2-** keyboard version
- Addition of EC-Declaration of Conformity KBDi-JS2-PS2-** keyboard version
- Addition and correction of IECEx certificate KBD(i)-PS2-** keyboard version
- Addition of ATEX certificate KBDi-JS2-PS2-** keyboard version
- Addition of IECEx certificate KBDi-JS2-PS2-** keyboard version
- Text and formal corrections

Version 01.00.04

- Changing chapter title from TR into EAC
- Renew EAC certificate for KBD(i)-PS2-** keyboard version
- Addition of EAC declaration of conformity
- Formal changes

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