Certificate Number
Baseefa02ATEX0073/4

Issued 1 June 2011

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa02ATEX0073/4**
4	Equipment or Protective System:	**Load Cell KXX-X with variants**
5	Manufacturer:	**Vishay Nobel AB**
6	Address:	**Box 423, SE-691 27 Karlskoga, Sweden**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0073 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

Baseefa Customer Reference No. **2054**

Project File No. **10/0535**

This certificate is granted subject to the general terms and conditions of Baseefa. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

R S SINCLAIR
DIRECTOR
On behalf of
Baseefa

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Baseefa is a trading name of Baseefa Ltd
Registered in England No. 4305578. Registered address as above.

13 **Schedule**

14 **Certificate Number Baseefa02ATEX0073/4**

15 Description of the variation to the Equipment or Protective System

Variation 4.1

To permit minor drawing changes that do not affect the original assessment.

Variation 4.2

To confirm that the equipment covered by this certificate has been reviewed against the requirements of EN 60079-0:2009 and EN 60079-11:2007 in respect of the differences from EN 50014:1997 + Amds 1 & 2 and EN 50020:2002 and that none of these differences affect this equipment.

Variation 4.3

To confirm that the equipment covered by this certificate has been additionally reviewed against the requirements of IEC 60079-31:2008 and may also therefore be coded:

P_i = 1.3W: Ⓔx II 1D Ex t IIIC T60°C T_{500}64°C Da

P_i = 1.2W: Ⓔx II 1D Ex t IIIC T80°C T_{500}84°C Da

16 Report Number

None

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
300275	1 of 1	4	2010-09-09	KIS-8X ATEX
300277	1 of 1	4	2010-09-09	KIS-9X ATEX
300278	1 of 1	4	2010-09-09	KIM-1X ATEX
400689	1 of 1	4	2010-09-09	KIS-X ATEX
500938	1 of 1	8	2010-09-09	ATEX Label KIS-X
600529	1 of 1	7	2010-09-09	ATEX Label KIS-8X
600530	1 of 1	7	2010-09-09	ATEX Label KIS-9X
600591	1 of 1	7	2010-09-09	ATEX Label KIM-1X

1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa02ATEX0073/3**
4	Equipment or Protective System:	**Load Cell KXX-X with variants**
5	Manufacturer:	**Vishay Nobel AB**
6	Address:	**Box 423, SE-691 27 Karlskoga, Sweden**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0073 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

Baseefa Customer Reference No. 2054

Project File No. 06/0310

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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R S SINCLAIR
DIRECTOR
On behalf of
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Re-issued 10.05.2007 to replace original

13 **Schedule**

14 **Certificate Number Baseefa02ATEX0073/3**

15 **Description of the variation to the Equipment or Protective System**

Variation 3.1

To permit a change to the ambient temperature ranges as follows:

KIS-9X, KIS-8X, KIM-1X, KIS-X:

	P_i = 1.3W	T4	-40°C ≤ Ta ≤ +40°C
	P_i = 1.2W	T4	-40°C ≤ Ta ≤ +60°C
KIS-X only:	P_i = 1.2W	T6	-40°C ≤ Ta ≤ +60°C

16 **Report Number**

None

17 **Special Conditions for Safe Use**

None

18 **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 **Drawings and Documents**

Number	Sheet	Issue	Date	Description
500938	1 of 1	7	2006-04-20	ATEX label, KIS-X
600529	1 of 1	6	2006-04-20	ATEX label, KIS-8X
600530	1 of 1	6	2006-04-20	ATEX label, KIS-9X
600591	1 of 1	6	2006-04-20	ATEX label, KIM-1X

1 SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa02ATEX0073/2**
4	Equipment or Protective System:	**Load Cell KXX-X with variants**
5	Manufacturer:	**Vishay Nobel AB**
6	Address:	**Box 423, SE-691 27 Karlskoga, Sweden**

7 This supplementary certificate extends EC – Type Examination Certificate No. Baseefa02ATEX0073 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

Baseefa Customer Reference No. 2054

Project File No. 05/0362

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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13 # Schedule

14 ## Certificate Number Baseefa02ATEX0073/2

15 Description of the variation to the Equipment or Protective System

Variation 2.1

To permit minor drawing changes.

16 Report Number

None.

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheet	Issue	Date	Description
500938	1 of 1	6	2005-05-09	KIS-X ATEX Label

1 # SUPPLEMENTARY EC - TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3	Supplementary EC - Type Examination Certificate Number:	**Baseefa02ATEX0073/1**
4	Equipment or Protective System:	**Load Cell KXX-X with variants**
5	Manufacturer:	**Vishay Nobel AB**
6	Address:	**Box 423, SE-691 27 Karlskoga, Sweden**

7 This supplementary certificate extends EC – Type Examination Certificate No Baseefa03ATEX0073 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

This supplementary certificate shall be held with the original certificate.

Baseefa (2001) Ltd. Customer Reference No. 2054

Project File No. 03/0931

This certificate is granted subject to the general terms and conditions of Baseefa (2001) Ltd. It does not necessarily indicate that the equipment may be used in particular industries or circumstances.

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R S SINCLAIR
DIRECTOR
On behalf of
Baseefa (2001) Ltd.

Reissued 18 November 2005 to replace original

13 **Schedule**

14 **Certificate Number Baseefa02ATEX0073/1**

15 Description of the variation to the Equipment or Protective System

Variation 1.1

To permit the following changes:

- A change of company name and logo on the drawings.
- Alterations to the information provided on the drawings.
- New input parameters for all KXX-X variants:

  P_i = 1.3W T4 -20°C ≤ Ta ≤ +40°C
  P_i = 1.2W T4 -20°C ≤ Ta ≤ +60°C
  P_i = 1.2W T6 -20°C ≤ Ta ≤ +60°C (for the KIS-X alone)

- New cable length options:

Cable length	Capacitance, C_i	Inductance, L_i	L_i / R_i Ratio
< 10m	3.5nF	10µH	30µH/Ω
>10m to 15m	5nF	15µH	30µH/Ω
>15m to 25m	8nF	25µH	30µH/Ω
>25m to 50m	15nF	Use L_i/R_i ratio	30µH/Ω
>50m to 100m	30nF	Use L_i/R_i ratio	30µH/Ω

16 Report Number

None

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

Compliance with the Essential Health and Safety Requirements is not affected by this variation.

19 Drawings and Documents

Number	Sheets	Issue	Date	Description
300275	1	3	2003-09-15	KIS-8X general assembly
300277	1	3	2003-09-15	KIS-9X general assembly
300278	1	3	2003-09-15	KIM-1X general assembly
400689	1	3	2003-09-15	KIS-X general assembly
500938	1	5	2003-09-15	KIS-X ATEX label
600529	1	5	2003-09-15	KIS-8X ATEX label
600530	1	5	2003-09-15	KIS-9X ATEX label
600591	1	5	2003-09-15	KIM-1X ATEX label

EC - TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 EC – Type Examination Certificate Number : **Baseefa02ATEX0073**

4 Equipment or protective system: **Load Cell KXX-X with variants**

5 Manufacturer : **Thermo Nobel AB**

6 Address : **Box 423, SE-691 27 Karlskoga, Sweden**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Baseefa (2001) Ltd. Notified body number 1180 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 confidential Report No. **02(C)0291**

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

EN50014 : 1997 + Amendments 1 & 2 **EN50020 : 2002** **EN50281-1-1:1998** **EN50284:1999**

except in respect of those requirements listed at item 18 of the Schedule.

10 If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions of safe use specified in the schedule to this certificate.

11 This EC - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

12 The marking of the equipment or protective system shall include the following :

SEE SCHEDULE

This certificate may only be reproduced in its entirety, without any change, schedule included.

Baseefa (2001) Ltd. Customer Reference No. **2054**

Project File No. **02/0291**

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Schedule

15 Description of Equipment or Protective System

The Loadcells Type KXX-X are designed to measure force. Each loadcell comprises a printed circuit board, two dual element strain gauges and two modulus gauges all housed in a stainless steel enclosure. External connections are made via an integral four core cable.

This certificate covers loadcells **KIS-X (Basic and Variants 1, 2 & 3), KIS-8X, KIS-9X** and **KIM-1X**, where X represents type and load rating.

The apparatus comprises a stainless steel body, in which the strain and modulus gauges and the printed circuit board (coated with silicon rubber compound or varnish) are mounted. Electrical connections are made via a glanded integral cable, the termination of which, on the internal printed circuit board is encapsulated. The loadcells are adequately protected against dust ingress, the enclosures offering a degree of protection of not less than IP6X.

The marking on each type is as follows:

KIS-9X, KIS-8X, KIM-1X:	**⟨Ex⟩ II 1 GD T60°C EEx ia IIC T4 -20°C ≤ Ta ≤ 40°C**
KIS-X, Basic:	**⟨Ex⟩ II 1 GD T60°C EEx ia IIC T4 -20°C ≤ Ta ≤ 40°C**
KIS-X, Variation 1:	**⟨Ex⟩ II 1 GD T80°C EEx ia IIC T4 -20°C ≤ Ta ≤ 60°C**
KIS-X, Variation 2 & 3:	**⟨Ex⟩ II 1 GD T80°C EEx ia IIC T6 -20°C ≤ Ta ≤ 60°C**

$U_i = 25V$, $I_i = 700mA$, $P_i = 1.25W$, $C_i = 2.5nF$, $Li/R_i = 30\mu H/\Omega$

16 Report No.

Baseefa (2001) Ltd. Certification Report 02(C)0290 dated 16th October 2002.

17 Special Conditions for Safe Use

None

18 Essential Health and Safety Requirements

None additional to those covered by the standards listed at item 9

19 Drawings and Documents

Number	Issue	Date	Description
600530	4	09-10-2002	KIS-9X ATEX Label
300277	2	10-10-2002	KIS-9X ATEX
600529	4	09-10-2002	KIS-8X ATEX Label
300275	2	10-10-2002	KIS-8X ATEX
600591	4	09-10-2002	KIM-1X ATEX Label
300278	2	10-10-2002	KIM-1X ATEX
500938	4	09-10-2002	KIS-X ATEX Label
400689	2	10-10-2002	KIS-X ATEX