1 # UK-TYPE EXAMINATION CERTIFICATE

2 **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 UK-Type Examination Certificate Number: **BAS22UKEX0267**

4 Product: **Load Cell KXX-X with variants**

5 Manufacturer: **Vishay Nobel AB**

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

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

8 SGS Baseefa, Approved Body number 1180, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), 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 Schedule 1 of the Regulations.

The examination and test results are recorded in confidential Report No. **GB/BAS/ExTR23.0022/00**

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

EN IEC 60079-0:2018 EN 60079-11:2012

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 product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

11 This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations 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 1 GD See Schedule**

Ex **I M1 See Schedule**

SGS Baseefa Customer Reference No. **2054** Project File No. **22/0544**

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UKAS PRODUCT CERTIFICATION
0191

R S SINCLAIR
TECHNICAL MANAGER
On behalf of SGS Baseefa Limited

13 # Schedule

14 ## Certificate Number BAS22UKEX0267

15 Description of Product

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, 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 of the equipment depends upon input power and ambient temperature as follows:

Ex ia IIC T6 Ga	Ex ia IIIC T_{500}84°C Da	Ex ia I Ma (-40ºC ≤ Ta ≤ 60ºC)	1.2W (KIS-X only)
Ex ia IIC T4 Ga	Ex ia IIIC T_{500}64°C Da	Ex ia I Ma (-40ºC ≤ Ta ≤ 40ºC)	1.3W
Ex ia IIC T4 Ga	Ex ia IIIC T_{500}84°C Da	Ex ia I Ma (-40ºC ≤ Ta ≤ 60ºC)	1.2W

Input Parameters

U_i	=	30V	C_i	=	2.5nF
I_i	=	700mA	L_i/R_i	=	30µH/Ω
P_i	=	1.2W / 1.3W			

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

GB/BAS/ExTR23.0022/00

17 Specific Conditions of Use

None

18 Essential Health and Safety Requirements

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause	Subject
1.2.7	Protection against other hazards (LVD type requirements, etc.)
1.2.8	Overloading of equipment (protection relays, etc.)
1.4.1	External effects
1.4.2	Aggressive substances, etc.

19 Drawings and Documents

New drawings submitted for this issue of certificate:

Number	Sheet	Issue	Date	Description
500938	1 of 1	11	2022-10-06	ATEX Label KIS-X
600529	1 of 1	10	2022-10-06	ATEX Label KIS-8X
600530	1 of 1	10	2022-10-06	ATEX Label KIS-9X
600591	1 of 1	10	2022-10-06	ATEX Label KIM-1X

Refer to Baseefa02ATEX0073 Issue 8 for the full list of applicable drawings.