

EU - TYPE EXAMINATION CERTIFICATE

Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

EU - Type Examination Certificate **Baseefa02ATEX0072 – Issue 5**
Number:

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.

Product: **Load Cell KXXD-X with variants**

Manufacturer: **Vishay Nobel AB**

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

This re-issued certificate extends EC Type Examination Certificate No. Baseefa02ATEX0072 to apply to product 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.

SGS Fimko Oy, Notified Body number 0598, 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 original certificate was issued by SGS Baseefa Ltd (UK Notified Body 1180). It, and any supplements previously issued by SGS Baseefa Ltd have been transferred to the supervision of SGS Fimko Oy (EU Notified Body 0598). The original certificate number is retained.

The examination and test results are recorded in confidential Report No. **See Certificate History**

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.

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.

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:

Ex II 1 GD Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀ 84°C Da (-40°C ≤ Ta ≤ 60°C)

Ex I M1 Ex ia I Ma (-40°C ≤ Ta ≤ 60°C)

SGS Fimko Oy Customer Reference No. **2054**

Project File No. **25/0464**

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Schedule

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15 Description of Product

The Loadcells Type KXXD-X are designed to measure force. Each loadcell comprises a printed circuit board, four 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 types KOSD-XXX-Z, KOSD-X, KOSD-New Style, KISD-X, KIMD-X and KXXD-DX, where X represents type and load rating and the -DX suffix represents a double-bridge type.

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.

Input Parameters

U_i	=	30V	C_i	=	See table below
I_i	=	1A	L_i	=	See table below
P_i	=	1.2W	L_i/R_i	=	See table below

Cable length	Capacitance, C_i	Inductance, L_i	L_i / R_i Ratio
< 10m	3.5nF	<10μH	30μH/Ω
>10m to 17m	5nF	<17μH	30μH/Ω
>17m to 25m	8nF	Use L_i/R_i ratio	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

See Certificate History

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:

None.

Current drawings which remain unaffected by this issue:

Number	Sheet	Issue	Date	Description
300138	1 of 1	3	2022-10-05	KIMD Type Double Bridge Connector or Cable
300139	1 of 1	3	2022-10-05	KOSD Type Double Bridge Connector or Cable
300279	1 of 1	1	10-10-2002	KISD-X
300280	1 of 1	1	10-10-2002	KIMD-X ATEX
300331	1 of 1	1	10-10-2002	KOSD-XXX-Z ATEX
300332	1 of 1	5	2022-10-05	KOSD-New Style
400774	1 of 1	1	10-10-2002	KOSD-X ATEX
600610	1 of 1	6	2022-10-05	ATEX Label KOSD-X
600631	1 of 1	6	2022-10-05	ATEX Label KISD-X
600632	1 of 1	6	2022-10-05	ATEX Label KIMD-X
600633	1 of 1	6	2022-10-05	ATEX Label KOSD-XXX-Z

All drawings are held with IECEx BAS 14.0015X and are common to BAS22UKEX0266.

20 Certificate History

Certificate No.	Date	Comments
Baseefa02ATEX0072	18 October 2002	The release of the prime certificate. The associated test and assessment is documented in Test Report No.. Project File No. 02/0290.
Baseefa02ATEX0072/1	19 January 2010	To introduce the KXXD-DX double-bridge loadcell, to permit a change to the ambient temperature range to $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$, 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 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: Ex II 1D Ex t IIIC T80°C T₅₀₀84°C Da Project File No. 10/0535.
Baseefa02ATEX0072 Issue 2	11 November 2014	This issue of the certificate incorporates previously issued primary & supplementary certificates into one certificate and confirms the current design meets the requirements of EN 60079-0: 2012 & EN 60079-11: 2012 including the revision of the marking in accordance with these standards. IEC 60079-31:2008 has been removed and the code changed from Ex t IIIC to Ex ia IIIC. Ex II 1 GD Ex ia IIC T4 Ga Ex ia IIIC T80°C T₅₀₀84°C Da The equipment has been assessed against the requirements for Group I and may also therefore be additionally coded: Ex I M1 Ex ia I Ma Test Report No. GB/BAS/ExTR14.0154/00. Project File No. 13/0709.
Baseefa02ATEX0072 Issue 3	11 June 2018	To permit a change in U_i from 25V to 30V (the parameters have been updated accordingly) and to confirm that the equipment meets the requirements of EN 60079-0: 2012+A11:2013. Test Report No. GB/BAS/ExTR18.0071/00. Project File No. 18/0220.



Certificate No.	Date	Comments
Baseefa02ATEX0072 Issue 4	12 April 2023	To confirm the current design meets the requirements of EN IEC 60079-0:2018. Test Report No: GB/BAS/ExTR23.0022/00 Project File No: 22/0544
Baseefa02ATEX0072 Issue 5	10 September 2025	To correct input parameter Li (inductance of attached cable). Project File No: 25/0464
For drawings applicable to each issue, see original of that issue.		