



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX BAS 14.0015X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 4	Issue 3 (2023-04-17)
Date of Issue:	2025-09-10		Issue 2 (2020-01-08)
Applicant:	Vishay Nobel AB Box 423 SE-691 27 Karlskoga Sweden		Issue 1 (2018-06-11)
Equipment:	Load Cell Types KXXD-X KXX-X & KXXD-(D)AX, with variants		Issue 0 (2014-11-13)
Optional accessory:			
Type of Protection:	Intrinsic Safety		
Marking:	Ex ia I Ma Ex ia IIC T4 Ga Ex ia IIC T6 Ga Ex ia IIB T4 Ga Ex ia IIIC T**°C T₅₀₀**°C Da (-40°C ≤ Ta ≤ +40°C/60°C/70°C/80°C) See Annex for details		

Approved for issue on behalf of the IECEx
Certification Body:

P Oates

Position:

Engineering Manager

Signature:
(for printed version)

Date:
(for printed version)

10/9/2025

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 www.iecex.com or use of this QR Code.



Certificate issued by:

SGS UK Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire SK17 9RZ
United Kingdom





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Manufacturer: **Vishay Nobel AB**
Box 423
SE-691 27 Karlskoga
Sweden

Manufacturing locations: **Vishay Nobel AB**
Box 423
SE-691 27 Karlskoga
Sweden

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with 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 Reports:

[GB/BAS/ExTR14.0154/00](#)
[GB/BAS/ExTR23.0022/00](#)

[GB/BAS/ExTR18.0071/00](#)

[GB/BAS/ExTR20.0003/00](#)

Quality Assessment Report:

[GB/BAS/QAR14.0003/07](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The loadcells are designed to measure force. Each loadcell comprises a printed circuit board, two or four dual element strain gauges and two or four modulus gauges all housed in a stainless steel enclosure. The -(D)AX versions include one or two internal amplifiers. External connections are made via an integral four core cable or a female multi-pole connector.

"This certificate covers:

- loadcells KIS-X, KIS-8X, KIS-9X, KIM-1X, KOSD-XXX-Z, KOSD-X, KOSD-New Style, KISD-X, KIMD-X and KXXD-DX where X represents type and load rating and DX suffix represents type and load rating of double-bridge types,
- loadcells KIMD-AX, KIMD-DAX, KOSD-AX and KOSD-DAX where AX represents a single amplifier type and DAX represents a twin amplifier type. The X can be up to five characters to define accuracy and degree of temperature compensation."

See Annex for coding and electrical data

SPECIFIC CONDITIONS OF USE: YES as shown below:

Types KIMD-AX, KIMD-DAX, KOSD-AX and KOSD-DAX only:-

- 1 - The leakage current may exceed 5mA when a test voltage of 500V is applied between all inputs and frame. Each unit is tested by the manufacturer and those units that do not meet the insulation test requirement will be clearly identified. This must be taken into account during installation.
- 2 - The free end of the cable must be installed such that the terminations are afforded a degree of protection of at least IP20



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 4.1

To correct input parameters including Li (inductance of attached cable).

File Reference: **25/0464**

Annex:

[IECEX BAS 14.0015X Annex 3.pdf](#)

The marking of the equipment or protective system is as follows (temperature classifications/ambient temperatures may vary with input power, P_i):

KXX-X types

Ex ia IIC T6 Ga Ex ia IIIC T₅₀₀84°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 60°C) 1.2W (KIS-X only)
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀64°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 40°C) 1.3W
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀84°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 60°C) 1.2W

KXXD-(D)X types

KOSD-XXX-Z, KOSD-X, KOSD-New Style, KISD-X, KIMD-X

Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀84°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 60°C) 1.2W

KXXD-(D)AX types

KIMD-AX, KOSD-AX

Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀64°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 40°C) 1.3W
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀84°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 60°C) 1.2W
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀94°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 70°C) 1.1W
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀104°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 80°C) 1.0W

KIMD-DAX, KOSD-DAX

Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀82°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 40°C) 1.3W
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀102°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 60°C) 1.2W
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀112°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 70°C) 1.1W
 Ex ia IIC T4 Ga Ex ia IIIC T₅₀₀122°C Da Ex ia I Ma (-40°C ≤ Ta ≤ 80°C) 1.0W

NOTE: Group IIB for types with >97m of integral cable.

Input parameters

In the case of the dual amplifier -D* types, these parameters apply to each independent amplifier circuit.

KXXD-(D)X

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

KXX-X

$U_i = 30V$ $C_i = 2.5nF$
 $I_i = 700mA$ $L_i = \text{See table below}$
 $P_i = 1.2W$
 1.3W

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

KXXD-(D)AX

Connector version, no cable

$U_i = 30V$ $C_i = 26nF$
 $I_i = 120mA$ $L_i = 0$
 $P_i = 1.0W-1.3W$

Integral cable versions

U_i , I_i and P_i remain as above.

Cable length	Capacitance		Inductance		Group
	Cable	Total (C_i)	Cable	Total (L_i)	
None, connector only	0	26nF	0	0 μ H	IIC
<10m	3.5nF	30nF	10 μ H	10 μ H	IIC
>10m – 40m	14nF	40nF	40 μ H	40 μ H	IIC
>40m – 68m	23.8nF	50nF	68 μ H	70 μ H	IIC
>68m – 97m	33.9nF	60nF	97 μ H	0.10mH	IIC
>97m – 211m	73.9nF	100nF	211 μ H	0.22mH	IIB
>211m – 497m	173.9nF	200nF	497 μ H	0.50mH	IIB
>497m – 1068m	373.8nF	400nF	1068 μ H	1.07mH	IIB