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 LOM 19.0001X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2019-10-03		
Applicant:	**Técnicas de Electrónica y Automatismos, S.A.** C/ Espronceda, 180 – 176. 08018. Barcelona **Spain**		
Equipment:	**Load Cell summing boxes Types 89092 and 89093**		
Optional accessory:			
Type of Protection:	**Intrinsic safety "ia" and Protection by enclosures "ta"**		
Marking:	Ex ia IIC T6...T4 Ga Ex ia IIIC T85ºC...T135ºC Da Ex ta IIIC T_{200} 85ºC Da **Alternative code** Ex ia IIC T6...T4 Ga Ex ia IIIC T85ºC...T135ºC Da Ex tb IIIC T85ºC Db		

Approved for issue on behalf of the IECEx Certification Body: **Javier García Torrent**

Position: **Certification Committee**

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

Certificate issued by:

Laboratorio Oficial J.M. Madariaga (LOM)
TECNOGETAFE
C/ Eric Kandel, 1
28906 Getafe (Madrid)
Spain

IECEx Certificate of Conformity

Certificate No.: **IECEx LOM 19.0001X**

Date of issue: 2019-10-03

Issue No: 0

Manufacturer: **Técnicas de Electrónica y Automatismos, S.A.**
C/ Espronceda, 180 – 176. 08018. Barcelona
Spain

Additional manufacturing locations:

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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 Report:

ES/LOM/ExTR18.0006/00

Quality Assessment Report:

ES/LOM/QAR16.0003/03

IECEx Certificate of Conformity

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

Load cell summing boxes consisting of two variants:

- Type 89092 to connect 8 load cells
- Type 89093 to connect 4 load cells

These devices have terminals and potentiometers in a circuit enclosed in an aluminum box with a degree of protection IP6X.

Range of ambient temperature: -20ºC ≤ Ta ≤ +60ºC

The boxes can be used in intrinsically safe circuits.

The ratings for type of protection "ta" are: Imax: 0.1 A.

The specific parameters for the type of protection "ia" are:

	Ta≤ 40 ºC	Ta≤ 60 ºC
T4/T135ºC	Pi: 1.8 W	Pi: 1.6 W
T5/T100ºC	Pi: 1.2 W	Pi: 1.0 W
T6/T85ºC	Pi: 0.45 W	Pi: 0.23 W

SPECIFIC CONDITIONS OF USE: YES as shown below:
When summing boxes are used as "Ex ta" the cable must be mechanically protected. The power of the summing boxes must be fitted with a fuse of up to 0.1 A with a breaking capacity of 10 kA.

When summing boxes are used as "Ex ta", they must be equipped with cable glands appropriate for this type of protection. These cable glands shall be provided with an additional gasket due to the number of threads of the entry.

When use in zone 0 the equipment must be protected against impact or friction.

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 LOM 19.0003X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2019-10-03		
Applicant:	**Técnicas de Electrónica y Automatismos, S.A.** C/ Espronceda, 180 – 176. 08018. Barcelona **Spain**		
Equipment:	**Load Cell summing boxes Types 89092 and 89093**		
Optional accessory:			
Type of Protection:	**Non-sparking "nA"**		
Marking:	Ex nA IIC T6 Gc		

Approved for issue on behalf of the IECEx Certification Body: **Javier García Torrent**

Position: **Certification Committee**

Signature: (for printed version) _____

Date: _____

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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:

Laboratorio Oficial J.M. Madariaga (LOM)
TECNOGETAFE
C/ Eric Kandel, 1
28906 Getafe (Madrid)
Spain

IECEx Certificate of Conformity

Certificate No.: **IECEx LOM 19.0003X**

Date of issue: 2019-10-03

Issue No: 0

Manufacturer: **Técnicas de Electrónica y Automatismos, S.A.**
C/ Espronceda, 180 – 176. 08018. Barcelona
Spain

Additional manufacturing locations:

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 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

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 Report:

ES/LOM/ExTR18.0006/00

Quality Assessment Report:

ES/LOM/QAR16.0003/03

IECEx Certificate of Conformity

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

Load cell summing boxes consisting of two variants:

- Type 89092 to connect 8 load cells

- Type 89093 to connect 4 load cells

Range of ambient temperature: -20ºC ≤ Ta ≤ +60ºC

These devices have terminals and potentiometers in a circuit enclosed in an aluminum box with a degree of protection IP6X.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Supply voltage shall not exceed 25 V.

EU-Type Examination Certificate

2 Equipment or protective systems Intended for use in Potentially Explosive Atmospheres – Directive 2014/34/EU

3 EU-Type Examination Certificate number **LOM 04ATEX2130X** **Issue: 5**

4 Product: Load cell summing boxes
Mark UTILCELL, types 89092 & 89093

5 Manufacturer: Técnicas de Electrónica y Automatismos, S.A.

6 Address: Espronceda, 176-180
08018 BARCELONA
SPAIN

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

8 Laboratorio Oficial J.M. Madariaga (LOM), Notified Body No. 0163, in accordance with Article 17 of the 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: **LOM 22.607U**

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

- Standards **EN IEC 60079-0:2018** **EN 60079-11:2012** **EN 60079-31:2014**

Where additional criteria beyond those given here have been used, they are listed at item 18 in 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 EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. 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 1G Ex ia IIC T6 Ga
II 1D Ex ia IIIC T_{200} 85 °C Da
II 2D Ex tb IIIC T_{200} 85 °C Db
II 1D Ex ta IIIC T_{200} 85 °C Da

Getafe,
Signed electronically by:

GARCIA TORRENT FRANCISCO JAVIER - 05356542A
2022.12.29 11:59:07 +01'00'

Certification committee

RCPCER 25.7/7

ENAC CERTIFICACIÓN ISO 17065 Nº159 / C-PR360

UNIVERSIDAD POLITÉCNICA DE MADRID
(Real Decreto 334/1992 de 3 de Abril - BOE 1992-04-29)

Eric Kandel, 1 – 28906 GETAFE (MADRID) • (34) 910 679 825 • lom@lom.upm.es

13 SHEDULE

14 EU-Type Examination Certificate number: **LOM 04ATEX2130X** **Issue: 5**

15 Description of product

Load cell summing boxes consisting of two variants:
Type 89092 to connect 8 load cells
Type 89093 to connect 4 load cells

These devices have terminals and potentiometers in a circuit enclosed in an aluminium box with a degree of protection IP6X.

Intrinsic safety type of protection parameters

	Ta ≤ 40 °C	Ta ≤ 60 °C
T4 / T_{200} 135 °C	*Pi*: 1.8 W	*Pi*: 1.6 W
T5 / T_{200} 100 °C	*Pi*: 1.2 W	*Pi*: 1.0 W
T6 / T_{200} 85 °C	*Pi*: 0.45 W	*Pi*: 0.23 W

For the "Ex ta" type of protection the surface temperature as a function of the ambient temperature is:
T_{200}85 °C for Ta ≤ 40 °C
T_{200}105 °C for Ta ≤ 60 °C

In the case of using "tb" cable entries, the marking for explosive dust atmospheres with type of protection by enclosure is Ex tb IIIC T85 °C Db

Ambient temperature: -20°C ≤ Ta ≤ +60°C

Changes in this issue
Update to the standards EN IEC 60079-0:2018 and EN 60079-31:2014

16 Report **LOM 22.607U**

17 Specific conditions of use

- When summing boxes are used as "Ex ta" the cable must be mechanically protected. The power of the summing boxes must be fitted with a fuse of up to 0.1 A with a breaking capacity of 10 kA.
- When summing boxes are used as "Ex ta", they must be equipped with cable glands appropriate for this type of protection. These cable glands shall be provided with an additional gasket due to the number of threads of the entry.
- When use in zone 0 the equipment must be protected against impact or friction.

18 Essential health and safety requirements

Met by compliance with the requirements mentioned in item 9.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission, supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

13 SHEDULE

14 EU-Type Examination Certificate number: **LOM 04ATEX2130X** **Issue: 5**

19 Drawings and Documents

Number	Sheets	Issue	Date	Description
MH01-2022-12	89	0	2022-12-12	(*)Technical dossier, includes drawings and user manual

Note: An * is included before the title of documents that are new or revised.

20 History of variations

Issue	Date	Report number	Description
0	2004-10-06	LOM 04.424 EP	First certificate
1	2009-11-30	LOM 09.534 SP	Update to EN 60079-0:2006, EN 60079-11:2007 and EN 61241-11:2006
2	2010-12-22	LOM 10.254 KP	- Update to EN 60079-0:2009 y EN 60079-31:2009 - Marking update - Parameters update
3	2012-11-12	LOM 12.096 GP	- Extend the ambient temperature range - Update of the specific parameters - Marking update - Update of the special conditions of use
4	2020-01-13	19.648S	- Update of the specific parameters - Update of the special conditions of use

TYPE EXAMINATION CERTIFICATE

2 Product Intended for use in Potentially Explosive Atmospheres – Directive 2014/34/EU

3 Type Examination Certificate number **LOM 12ATEX4083** **Issue: 2**

4 Product: Load cell summing boxes
Mark UTILCELL, types 89092 & 89093

5 Manufacturer: Técnicas de Electrónica y Automatismos S.A.

6 Address: Espronceda, 180-176
08018 Barcelona
SPAIN

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

8 Laboratorio Oficial J.M. Madariaga (LOM) 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 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014. LOM does not act as Notified Body in this assessment.
The examination and test results are recorded in the confidential Report **LOM 22.607U.**

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

- Standards **EN IEC 60079-0:2018** **EN IEC 60079-7:2015+A1:2018**

Where additional criteria beyond those given here have been used, they are listed at item 18 in 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 Type Examination Certificate relates only to the design and construction of the specified product in accordance to the Directive 2014/34/EU. 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 3G Ex ec IIC T6 Gc

Getafe,
Signed electronically by:

GARCIA TORRENT FRANCISCO JAVIER - 05356542A
2022.12.29 11:57:20 +01'00'

Certification committee

RCPCER 25.16/6

UNIVERSIDAD POLITÉCNICA DE MADRID
(Real Decreto 334/1992 de 3 de Abril - BOE 1992-04-29)
Eric Kandel, 1 – 28906 GETAFE (MADRID) • (34) 910 679 825 • lom@lom.upm.es

13 SCHEDULE

14 Type Examination Certificate number: **LOM 12ATEX4083** **Issue: 2**

15 Description of the product

Summing boxes sum for load cell circuits in two variants:
Model 89092 to connect 8 load cells
Model 89093 to connect 4 load cells

These devices have terminals and potentiometers in a circuit enclosed in an aluminium box with degree of protection IP6X.

Rated supply voltage: 25 V

Ambient temperature: -20ºC ≤ Ta ≤ +60ºC

Changes in this issue
- Update to the standards EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018
- Marking is changed to Ex ec IIC T6 Gc

16 Report **LOM 22.607U**

Individual tests
Each manufactured unit must undergo the dielectric strength tests indicated in section 7.1 of EN 60079-7:2015 at a voltage of 500 V_{AC}/700 V_{DC} during at least 1 minute, or alternative test at 600 V_{AC}/840 V_{DC} during at least 100 ms.

17 Specific conditions of use

None

18 Essential health and safety requirements

Met by compliance with the requirements mentioned in item 9.

19 Drawings and Documents

Number	Sheets	Issue	Date	Description
MH01-2022-12	89	0	2022-12-12	(*)Technical description, drawings and user manual

*Note: An * is included before the title of documents that are new or revised.*

20 History of variations

Issue	Date	Report number	Description
0	2012-11-13	LOM 12.096 GP	First certificate
1 rev.1	2020-02-12	19.648S	- Update to EN 60079-0:2012 + A11:2013 and EN 60079-15:2010 - Individual tests are included