

INSTRUCCIONES DE SEGURIDAD / SAFETY INSTRUCTIONS / SICHERHEITSAUWEISUNGEN / INSTRUCTIONS DE SÛRETÉ

Este equipo puede ser utilizado con tres modos de protección distintos: / This equipment may be used with three different safety modes: / Dieses Gerät kann mit drei verschiedenen Zündschutzarten verwendet werden / Cet équipe peut être utilisée en trois modes différents de protection

#1 & #2: Como equipo del Grupo II Categoría 1 / As equipment of Group II Category 1 / Als Gerät der Gruppe II Kategorie 1 / Comme équipe du Groupe II Catégorie 1

#1- Para las Zonas: **0,1,2,20,21,22** / For Zones: **0,1,2,20,21,22** / Für Zonen: **0,1,2,20,21,22** / Pour les Zones: **0,1,2,20,21,22**

Este equipo puede usarse con el Modo de protección “**Seguridad intrínseca (ia)**” / This equipment may be used with a Safety mode “**Intrinsically safety (ia)**” / Dieses Gerät kann mit einer Zündschutzart “**Eigensicherheit (ia)**” eingesetzt werden / Cet équipe peut s’employer avec le Mode de protection “**Sécurité intrinsèque (ia)**”

En un circuito con los siguientes Parámetros específicos del modo de protección / In a circuit with the following Type of protection specific parameters / In einen Stromkreis mit den spezifischen Kenngrößen der Zündschutzart / Dans un circuit avec les suivants Paramètres spécifiques de la mode de protection

	T4	T5	T6		T4	T5	T6	
Pi	1.8 W	1.2 W	0.45 W	(Ta ≤ 40 °C)	Pi	1.6 W	1.0 W	0.23 W (Ta ≤ 60 °C)

Y con el Marcado de protección  $\text{Ex}^{(1)}$  / And with the Protective mark  $\text{Ex}^{(1)}$  / Und mit Kennzeichnung der Eigensicherheit  $\text{Ex}^{(1)}$  / Et avec le Marquage de protection  $\text{Ex}^{(1)}$

$\text{Ex}$  II 1 G Ex ia IIC T4..T6 Ga   
II 1 D Ex ia IIC T135°C..T85°C Da 0163

Amparado por el certificado de ensayos LOM 04ATEX2130 X emitido por el organismo notificado 0163 - Laboratorio Oficial J.M. Madariaga / Protected by the test certificate LOM 04ATEX2130 X emitted by the notified body 0163 - Laboratorio Oficial J.M. Madariaga / Geschützt durch die Testbescheinigung LOM 04ATEX2130 X ausgestellt durch die Benannte Stelle 0163 - Laboratorio Oficial J.M. Madariaga / Protégé par le certificat d’essais LOM 04ATEX2130 X émis par l’organisme notifié 0163 - Laboratorio Oficial J.M. Madariaga

#2 Para las Zonas: **21,22** / For Zones: **21,22** / Für Zonen: **21,22** / Pour les Zones: **21,22**

Este equipo puede usarse con el Modo de protección “**Protección contra la ignición de polvo por envolvente (t)**” / This equipment may be used with a Safety mode “**Dust ignition protection by enclosure (t)**” / Dieses Gerät kann mit einer Zündschutzart “**Geräte-Staubexplosionsschutz durch Gehäuse (t)**” eingesetzt werden / Cet équipe peut s’employer avec le Mode de protection “**Protection contre l’inflammation des poussières par enveloppe (t)**”

En un circuito que cumpla con los siguientes requisitos / In a circuit that fulfills the following requirements / In einem Stromkreis mit den folgenden Voraussetzungen / Dans un circuit avec les conditions requises suivantes

El cableado debe cumplir las normativas legales y exigencias reglamentarias de la instalación. Tensión máx. de alimentación: 25 V. Las células de carga y cables deben de protegerse mecánicamente. / Wiring has to accomplish with legal regulations and requirements of the installation. Maximum input supply: 25 V. Load cells and cables must be mechanically protected. / Die Verdrahtung hat die gesetzlichen Bestimmungen und Anforderungen der Installation zu erfüllen. Max. Speisespannung: 25 V. Die Wägezellen und Kabel müssen mechanisch geschützt werden. / Le câblage doit accomplir les réglementations légales et les exigences réglementaires de l’installation. Tension d’alimentation max.: 25 V. Les capteurs et câbles doivent être protégés mécaniquement.

Y con el Marcado de protección  $\text{Ex}^{(1)}$  / And with the Protective mark  $\text{Ex}^{(1)}$  / Und mit Kennzeichnung der Eigensicherheit  $\text{Ex}^{(1)}$  / Et avec le Marquage de protection  $\text{Ex}^{(1)}$

$\text{Ex}$  II 2 D Ex tb IIIC T85°C Db  0163

Amparado por el certificado de ensayos LOM 04ATEX2130 X emitido por el organismo notificado 0163 - Laboratorio Oficial J.M. Madariaga / Protected by the test certificate LOM 04ATEX2130 X emitted by the notified body 0163 - Laboratorio Oficial J.M. Madariaga / Geschützt durch die Testbescheinigung LOM 04ATEX2130 X ausgestellt durch die Benannte Stelle 0163 - Laboratorio Oficial J.M. Madariaga / Protégé par le certificat d’essais LOM 04ATEX2130 X émis par l’organisme notifié 0163 - Laboratorio Oficial J.M. Madariaga

#3- Como equipo del Grupo II Categoría 3 para la Zonas **2** / As equipment of Group II Category 3 for Zone **2** / Als Gerät der Gruppe II Kategorie 3 für Zone **2** / Comme équipe du Groupe II Catégorie 3 pour la Zone **2**

Este equipo puede usarse con el Modo de protección “**No incendiaria-No productor de chispas (nA)**” / This equipment may be used with a Safety mode “**Non incendiary-Non-sparking (nA)**” / Dieses Gerät kann mit einer Zündschutzart “**nicht funkende (nA)**” / Cet équipe peut s’employer avec le Mode de protection “**Non inflammable (nA)**”

En un circuito que cumpla con los siguientes requisitos / In a circuit that fulfills the following requirements / In einem Stromkreis mit den folgenden Voraussetzungen / Dans un circuit avec les conditions requises suivantes

Tensión máx. de alimentación / Max. input supply / Max. Speisespannung / Tension d’alimentation max.: 25 V

Y con el Marcado de protección  $\text{Ex}^{(1)(2)}$  / And with the Protective mark  $\text{Ex}^{(1)(2)}$  / Und mit Kennzeichnung der Eigensicherheit  $\text{Ex}^{(1)(2)}$  / Et avec le Marquage de protection  $\text{Ex}^{(1)(2)}$

$\text{Ex}$  II 3 G Ex nA IIC T6 Gc 

(1) El marcado del equipo incluye distintos modos de protección. El o los modos de protección utilizados se marcarán en el recuadro correspondiente de la etiqueta / The marking of the equipment includes various types of protection. The mode or modes of protection used have to be marked in the appropriate box on the label / Die Kennzeichnung des Gerätes umfasst verschiedene Arten von Schutz. Er oder Schutz-Modi verwendet werden, in das entsprechende Feld auf dem Etikett / Le marquage de l’équipement comprend divers types de protection. Il ou modes de protection utilisés sont indiqués dans la case appropriée sur l’étiquette  
(2) El modo de protección #3 tiene el certificado de ensayos LOM 12ATEX4083 / Safety mode #3 has the test certificate LOM 12ATEX4083 / Sicherheitsweis #3 hat die Testbescheinigung LOM 12ATEX4083 / Le mode de protection #3 correspond au le certificat d’essais LOM 12ATEX4083

# Declaración de Conformidad CE / EC Declaration of Conformity

## EG Konformitätserklärung / CE Déclaration de Conformité

**Técnicas de Electrónica y Automatismos, S.A.**

Espronceda, 176-180 / 08018 BARCELONA (SPAIN)

TEL: (+34) 93 498 44 65 / FAX: (+34) 93 308 69 93

Con notificación de garantía de la calidad de la producción LOM 03 ATEX 9025 emitida por LOM nº0163,  
que nos autoriza a colocar sobre el producto el marcado legal  
With production quality assurance notification LOM 03 ATEX 9025 emitted by LOM nº0163, which authorizes  
us to place on the product the legal marking  
Durch die Mitteilung über die Qualitätssicherung LOM 03 ATEX 9025, ausgestellt von LOM nº0163, die uns  
ermächtigt auf den Produkt das Kennzeichen anzubringen  
Avec certificat de conformité du système de contrôle de la production LOM 03 ATEX 9025 émis pour le LOM  
nº0163, qui nous autorise le marquage légal



II 1 G Ex ia IIC T4..T6 Ga  
II 1 D Ex ia IIIC T135 °C..T85 °C Da  
II 2 D Ex tb IIIC T85 °C Db



II 3 G Ex nA IIC T6 Gc

declara bajo nuestra única responsabilidad que el producto fabricado en nuestras instalaciones  
declare under our sole responsibility that the product manufactured at our facilities  
erklärt unter unseren alleinigen Verantwortung, dass das in unseren Produktionsstätten produzierte Produkt  
déclare sous notre responsabilité exclusive que le produit fabriqué a nos installations

### junction box model 89092

es conforme a los requisitos esenciales de seguridad establecidos en el anexo II de la Directiva **94/9/CE**.  
is in conformity with the essential safety requirements established in appendix II of Directive **94/9/EC**.  
die im Anhang II der Richtlinie **94/9/EG** festgelegten grundlegenden Sicherheitsanforderungen erfüllt.  
est conforme aux conditions essentielles de sûreté requises par l'annexe II de la Directive **94/9/CE**.

Para el cumplimiento de estos requisitos el producto es conforme con las normas  
To accomplish with these requirements this product conforms with the standards  
Zur Erfüllung dieser Anforderungen werden folgende Normen eingehalten  
Pour l'accomplissement de ces conditions, le produit est conforme aux normes

**EN 60079-0:2009**                      **EN 60079-31:2009**  
**EN 60079-11:2007**                    **EN 60079-15:2010**

El modelo dispone de los certificados CE de tipo  
The model has the EC type examination certificates  
Das Modell verfügt über die EG-Konformitätsbescheinigungen  
Le model dispose des certifications CE de type

**LOM 04ATEX2130 X**                      **LOM 12ATEX4083**

Barcelona, November 26, 2012.....

J. Oller, Technical Director

**(1) SUPLEMENTO DE CERTIFICADO DE EXAMEN CE DE TIPO**

Equipos y sistemas de protección destinados a ser utilizados en atmósferas potencialmente explosivas.

Directiva 94/9/CE

**(2)** Suplemento nº 3 del Certificado de Examen CE de Tipo **LOM 04ATEX2130 X**

Equipo o sistema de protección

Cajas de suma para células de carga

Marca: UTILCELL, tipos 89092 y 89093

Fabricante

Técnicas de Electrónica y Automatismos, S.A.

Española, 176-180

08018 BARCELONA

ESPAÑA

**(7)** Protocolo de ensayos nº:

LOM 12.096 CP

**(8)** Variaciones incluidas en este certificado:

- Empleo de potenciómetros alternativos con distinto valor óhmico

- Se aumenta el rango de temperatura ambiente: -20 °C ≤ T<sub>a</sub> ≤ +60 °C- Modificación de los parámetros de seguridad inherencia. Con el fin de proporcionar mayor flexibilidad de conexión se han modificado los parámetros de potencia P<sub>1</sub> en lugar del de corriente I<sub>1</sub>. Estos parámetros son iguales para los modelos y variantes potencialmente explosivos.

Clase de temperatura marcada		T <sub>amb</sub> 40 °C	T <sub>amb</sub> 60 °C
T4	P <sub>1</sub> : 1,8 W	P <sub>1</sub> : 1,8 W	P <sub>1</sub> : 1,6 W
T5	P <sub>1</sub> : 1,2 W	P <sub>1</sub> : 1,2 W	P <sub>1</sub> : 1,0 W
T6	P <sub>1</sub> : 0,45 W	P <sub>1</sub> : 0,45 W	P <sub>1</sub> : 0,23 W

- El equipo puede marcarse como categoría 1 o categoría 2, cuando se utiliza con modo de protección por envolvente en ambientes con polvos inflamables.

**(9)** Cambios en el marcado:

Equipo como categoría 1



II 1 G

Ex Ia IIC T4 T<sub>a</sub> Ex G<sub>A</sub>

II 1 D

Ex Ia IIC T4 T<sub>a</sub> Ex G<sub>A</sub>

II 1 D

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**EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

- (1) Equipment or protective system intended for use in potentially explosive atmospheres  
Directive 94/9/EC
- (2) Supplement nr. 3 to EC-Type Examination Certificate **LOM 04ATEX2130 X**
- (3) Equipment or Protection System  
Load cell summing boxes  
Mark UTHI.CHI.L., Types 89092 & 89093
- (4) Manufacturer  
Técnicas de Electrónica y Automatismos, S.A.
- (5) Address  
Espinosa, 176-180  
08018-BARCELONA  
SPAIN
- (6) Test report nr.: **LOM 12.096 CP**
- (7) Variations included in this certificate
- (8) Use of alternative potentiometers having a different ohmic value
- To increase the range of ambient temperature:  $-20\text{ }^{\circ}\text{C} \leq T_a \leq 160\text{ }^{\circ}\text{C}$
- Changing the parameters of intrinsic safety. In order to provide greater flexibility of connection parameters specific complement indicating the power value *Pi* instead of current *Ii*. These parameters are the same for new and existing potentiometers.
- | Temperature class marked | $T_a \leq 40\text{ }^{\circ}\text{C}$ | $T_a \leq 60\text{ }^{\circ}\text{C}$ |
|--------------------------|---------------------------------------|---------------------------------------|
| T4                       | <i>Pi</i> : 1,8 W                     | <i>Pi</i> : 1,6 W                     |
| T5                       | <i>Pi</i> : 1,2 W                     | <i>Pi</i> : 1,0 W                     |
| T6                       | <i>Pi</i> : 0,45 W                    | <i>Pi</i> : 0,23 W                    |
- (9) Changes in marking
- Equipment as category 1
- |        | Alternative marking         |
|--------|-----------------------------|
| II 1 G | Ex ia IIC T4 Td Ga          |
| II 1 D | Ex ia IIC T135 °C TdS °C Da |
| II 1 D | Ex ia IIC T135 °C TdS °C Da |
| II 2 D | Ex ia IIC T135 °C TdS °C Da |
- The changes of specific parameters of this type of protection
- (10) Changes in special conditions for safe use
- Conditions specified in the base certificate and previous supplements are amended or supplemented.
- When summing boxes are used as protection by enclosure "Ex ia" the cable must be mechanically protected. The power of the summing boxes must be fitted with a "fuse" up to 1 A. The power supply must be assigned to a short circuit current not exceeding 10 kA.
- When summing boxes are used as protection "Ex ia" must be equipped with cable glands appropriate for this type of protection.
- This supplement must be an inseparable part together with the base certificate **LOM 04ATEX2130 X**  
This Certificate is a translation from the original in Spanish. The LOM liability applies only on the Spanish text  
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RECIBO Nº 12



RECIBO Nº 12

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FISICOS E INGENIEROS DE ELECTRICIDAD Y ELECTRONICA  
(Real Decreto 334/1992 de 3 de Abril - BOE 1592-04-28)

Eric Kandell, 1 - 28906 GETAFE (MADRID) - ☎ (34) 91 4421366 - ✉ (34) 91 4419933 - □ lom@lom.upm.es

Page 1/2

**Supplement nr. 3 to EC-Type Examination Certificate LOM 04ATEX2130 X**

- (1) Descriptive documents
- | Rev. | Date       |
|------|------------|
| 0    | 2012-05-17 |
| 0    | 2012-01-18 |
| 0    | 2012-01-18 |
- Technical dossier: HM-0433  
Drawings nr.: HM-0434
- Genife, 2012-11-12
- Angel Vega Remasa  
Head of ATEX area
- Carlos Fernández Ramón  
DIRECTOR OF THE LABORATORY



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**EC-TYPE EXAMINATION CERTIFICATE**

- (1) Equipment of Category 3 intended for use in potentially explosive atmospheres  
Directive 94/9/EC
- (2) Type Examination Certificate nr. **LOM 12ATEX4083**
- (3) Equipment or protection system  
Load cell summing boxes  
Mark UTHI.CHI.L., types 89092 & 89093
- (4) Manufacturer  
Técnicas de Electrónica y Automatismos, S.A.
- (5) Address  
Espinosa, 176-180  
08018-BARCELONA  
SPAIN
- (6) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (7) Laboratorio Oficial J.M. Madariaga (LOM) certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment of category 3 intended for use in potentially explosive atmospheres, given in Annex II to the Directive.  
The examination and test results are recorded in confidential report nr. **LOM 12.096 CP**
- (8) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- Standards EN 60079-0-2009 EN 60079-15-2010
- (9) If the sign X is placed after the certificate number it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- (10) This Type Examination Certificate relates only to the design and construction of this specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive apply to the manufacture and supply of this equipment or protective system. These are not covered by this certificate.
- (11) The marking of the equipment or protective system shall include the following:
- |  |       |   |
|--|-------|---|
|  | II 3G | Ex ia IIC T6 Gc   |
|  |       | $-20\text{ }^{\circ}\text{C} \leq T_a \leq 160\text{ }^{\circ}\text{C}$ |
- Genife, 2012-11-13
- Angel Vega Remasa  
Head of the ATEX area
- Carlos Fernández Ramón  
DIRECTOR OF THE LABORATORY
- This Certificate is a translation from the original in Spanish. The LOM liability applies only on the Spanish text  
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LABORATORIO OFICIAL J. M. MADARIAGA  
FISICOS E INGENIEROS DE ELECTRICIDAD Y ELECTRONICA  
(Real Decreto 334/1992 de 3 de Abril - BOE 1592-04-28)

Eric Kandell, 1 - 28906 GETAFE (MADRID) - ☎ (34) 91 4421366 - ✉ (34) 91 4419933 - □ lom@lom.upm.es

Page 1/2

**SCHEDULE**

- (A1) Type Examination Certificate nr. **LOM 12ATEX4083**
- (A2) Description of equipment or protective system  
Summing boxes for load cell circuits in two variants:  
Model 89092 to connect 8 load cells  
Model 89093 to connect 8 load cells  
They consist of connection elements and potentiometers in a circuit housed in aluminum casing.  
Rated supply voltage: 25 V
- (A3) Test report nr.: **LOM 12.096 CP**
- (A4) Special conditions for safe use  
None
- (A5) Individual tests  
None
- (A6) Essential Health and Safety Requirements  
Explosion site requirements are covered by application of the standards indicated in page 172 of this certificate.
- (A7) Descriptive documents
- | Rev. | Date       |
|------|------------|
| 0    | 2012-05-17 |
| 0    | 2012-01-18 |
| 0    | 2012-01-18 |
- Technical dossier: HM-0433  
Drawings nr.: HM-0434



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RECIBO Nº 12



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**EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

- (1) Equipment or protective system intended for use in potentially explosive atmospheres  
Directive 94/9/EC
- (2) Supplement nr. 2 to EC-Type Examination Certificate **LOM 04ATEX2130 X**
- (3) Equipment or Protection System  
Load cell summing boxes  
Mark UTILCELL, types 89092 & 89093
- (4) Manufacturer  
Técnicas de Electrónica y Automatismos, S.A.
- (5) Address  
Espronceda, 176-180  
08018-BARCELONA  
SPAIN
- (6) Test report nr.: **LOM 10.524 KP**
- (7) Variations included in this certificate

To include an application as category 1D using the type of protection by enclosures and the assessment update based on standards EN 60795-0:2009 and EN 60079-11:2007, load cells can be used after they are approved for intrinsically safe circuits or as equipment protected by enclosure type of protection, the last when used in flammable dust environment.

Specific parameters with "Ex" nr. Type of protection, Maximum voltage supply, 23 V

The specific parameters as intrinsically safe equipment remain unchanged

**(9) Changes in marking**

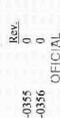
Ex II 1G Ex in IIC T4, T6 Gb  
Ex II 1D Ex in IIC T135 °C, T185 °C Dc  
Ex II 1D Ex in IIC T185 °C Dc

**(10) Changes in special conditions for safe use**

When load cells are used with a mode of protection by enclosure "Ex" nr, the cable and the same cells must be mechanically protected. The power supply of the load cells must be fitted with a fuse of up to 1 A, according to IEC 60127 with a breaking capacity not less than 10 kA.

**(11) Descriptive documents**

- Drawings nr.: HM-0355  
HM-0356



Madrid, 2010-12-22

J.M. MADARIAGA  
LABORATORIO OFICIAL

Angel Vega Remesal  
HEAD OF ATEX AREA

Carlos Fernández Ramo  
DIRECTOR OF THE LABORATORY

This supplement must be an inseparable part together with the base certificate **LOM 04ATEX2130 X**

This Certificate is a translation from the original in Spanish. The LOM liability applies only on the Spanish text.

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MINISTERIO DE INDUSTRIA



UNIVERSIDAD POLITÉCNICA DE MADRID  
ENSAYOS E INVESTIGACIONES DE MATERIALES Y EQUIPOS PARA AMBIENTES EXPLOSIVOS Y MINERA  
( Real Decreto 3341/1992 de 3 de Abril - BOE 1692-04-29)

Alenza, 1 - 28003 MADRID - ☎ (34) 91 4421866 / 91 33677009 - ✉ (34) 91 4419933 - 📠 lom@lom.upm.es

**EC-TYPE EXAMINATION CERTIFICATE**

- (1) Equipment or protective system intended for use in potentially explosive atmospheres  
Directive 94/9/EC
- (2) EC-Type Examination Certificate number: **LOM 04ATEX2130**
- (3) Equipment or Protection System  
Load cell summing boxes  
Mark UTILCELL, types 89092 & 89093
- (4) Applicant:  
Técnicas de Electrónica y Automatismos, S.A.
- (5) Address  
Espronceda, 176-180  
08018-BARCELONA  
SPAIN
- (6) This equipment or protective system and any acceptable variation therein is specified in the schedule in this certificate and the documents therein referred to.
- (7) Laboratorio Oficial J.M. Madariaga (LOM), with study number 0163 in accordance with Article 9 of the Directive 94/9/EC certifies that the equipment or protective system described in this certificate complies 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 nr. **LOM 04-424 EP**

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

Standard  
EN 50041:1997 + A1:1999 + A2:1999  
EN 50281-1-1:1998 + A1:2002  
EN 50284:1999

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

(11) This EC-Type Examination Certificate relates only to the design and construction of the specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive applies to the manufacture and supply of this equipment or protective system. These are not covered by this certificate.

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

Ex II 1G Ex in IIC T4, T6 IP66 T85°C

J.M. MADARIAGA  
LABORATORIO OFICIAL

Madrid, 6 October 2010

Angel Vega Remesal  
Head of ATEX area

Carlos Fernández Ramo  
DIRECTOR OF THE LABORATORY

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**EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

- (1) Equipment or protective system intended for use in potentially explosive atmospheres  
Directive 94/9/EC
- (2) Supplement nr. 1 to EC-Type Examination Certificate number: **LOM 04ATEX2130**
- (3) Equipment or Protection System  
Load cell summing boxes  
Mark UTILCELL, types 89092 & 89093
- (4) Applicant:  
Técnicas de Electrónica y Automatismos, S.A.
- (5) Address  
Espronceda, 176-180  
08018-BARCELONA  
SPAIN
- (6) Test report nr.: **LOM 09.534 SP**
- (7) Variations included in this certificate

Assessment update according the standards EN 60795-0:2006, EN 60799-1:2007 and EN 61241-1:2006

Specific parameters of the type of protection remain unchanged.

**(9) Changes in marking**

Ex II 1GD Ex in IIC T4, T6

**(10) Descriptive documents**

- Description: HM-0049  
- Drawings nr.: HM-0102

Date: 2009-10-27  
Rev.: a  
2009-10-27



Madrid, 2009-11-30

Angel Vega Remesal  
Head of ATEX

Carlos Fernández Ramo  
DIRECTOR OF THE LABORATORY

This supplement must be an inseparable part together with the base certificate **LOM 04ATEX2130**

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( Real Decreto 3341/1992 de 3 de Abril - BOE 1992-04-29)

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**SCHEDULE**

(A1) EC-Type Examination Certificate: **LOM 04ATEX2130**

(A2) Description of equipment or protective system

Load cell summing boxes made 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.

Intrinsic safety specific parameters:

Temperature class	II (Group)
	II 1E
	II 1D
	II 1C
	II 1B
	II 1A
	II 50 mA

(A4) Test report nr. **LOM 04-424 EP**

(A5) Special conditions for safe use

None

(A6) Individual tests

None

(A7) Essential Health and Safety Requirements

Explosion safe requirements are covered by application of the standards indicated in page 12 of this certificate.

**(A8) Descriptive documents**

Date	Rev.
2009-10-27	
2004-01-28	HM-0045
2004-01-28	HM-0048
2004-01-28	HM-0049
2004-01-28	HM-0052
2004-01-28	HM-0053
2004-01-28	HM-0059
2004-01-28	HM-0101
2004-01-28	HM-0102



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50, rue du Capitaine Maillard  
57220 BOULAY

NOTICE  
N° 19  
Ind.: 01

**ENTRÉE DE CÂBLE type EC x**  
**MODELE SIB-TEC Plastique**  
Pour atmosphères explosives Ex e II  
**CERTIFICAT LCIE 07 ATEX 6082 X**  
Directive 94/9/CE



**FONCTIONS :**

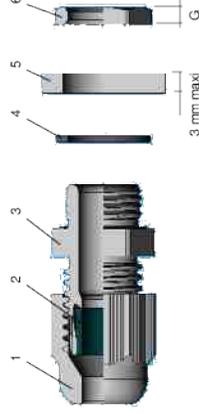
- Les entrées de câble type EC x modèle SIB-TEC sont destinées au passage de câbles au travers de parois métalliques ou plastiques.  
- Ces entrées de câble assurent l'étanchéité au passage d'un câble dans une enveloppe.  
- L'armage des câbles doit être reporté le plus près possible de l'entrée de câble.

**SPÉCIFICATIONS TECHNIQUES :**

- Mode de protection : Ex e.  
- Groupe : II - Catégories : 2 et 3.  
- Utilisation en zones 1 & 2, 21 & 22.  
- Montage avec écrou laiton sur trous lisses.  
- Température certifiée : - 35°C à + 95°C.  
- Température certifiée : - 20°C à + 80°C pour M12-P G07.  
- Étanchéité : IP 66 & 68 avec joint de queue.  
- Attention: montage du joint plat obligatoire en zones poussièreuses 21 & 22.  
- Conforme aux normes: EN 60079-0,  
EN 60079-7, EN 61241-0 et EN 61241-1.

**P-E Type EC x modèle SIB-TEC**

Métr.	PG	NPT	Ø Câbles		G
			mini / MAXI	(mm) mini	
M12	07		4	6,5	3
M12 R	07R		3	5	3
M16/09	09	3/8"	5	8	3
M16/09R	09R	3/8"R	4	6	3
M16/11	11		5	10	3
M16/11R	11R		4	7	3
M20/13	13	1/2"	7	12	3,5
M20/13R	13R	1/2"R	5	9	3,5
M20/16	16		10	14	3,5
M20/16R	16R		8	12	3,5
M25/16			10	14	3,5
M25/16R			8	12	3,5
M25/21	21	3/4"	12	16	3,5
M25/21R	21R	3/4"R	10	16	3,5
M32	29	1"	16	25	4,5
M32R	29R	1"R	14	21	4,5
M40	36		22	32	4,5
M40R	36R		16	26	4,5
M50	42		28	38,5	5,5
M50R	42R		20	31	5,5
M63	48		40	48	6
M63R	48R		30	39	6



- 1 : Chapeau / Druckschraube / Pressing screw  
2 : Garniture / Dichtung / Packing ring  
3 : Corps / Zwischenstützen / Lower part.  
4 : Joint plat / Flachdichtung / Flat ring  
5 : Paroi de l'appareil / Gehäuse-Wand / Appliance-Wall.  
6 : Ecrou / Gegenmutter / Lock-nuts.

Tél.: 03-87-79-20-22 / Fax: 03-87-57-32-45

11000075



SIB - ADR  
50, rue du Capitaine Maillard  
57220 BOULAY

NOTICE  
N° 19  
Ind.: 01



**KABELVERSCHRAUBUNG EC x**  
**Modell SIB-TEC aus Kunststoff**  
Für explosionsgefährdete Bereiche Zündschutzart Ex e II  
**Konformitätsbescheinigung LCIE 07 ATEX 6082 X**  
Nach Richtlinie 94/9/CE

**Funktion :**

- Die Kabelverschraubungen EC x - SIB-TEC dienen zur Kabeleinführung in Metallgehäuse, oder in Gehäuse aus Kunststoff.  
- Die Kabelverschraubungen EC x - SIB-TEC dichten die Kabeln an der Einführung ins Gehäuse ab.  
- Eine Zugentlastung soll direkt am Kabel angelegt werden.

**Technische Spezifikation :**

- Zündschutzart : Ex e.  
- Gerätegruppe : II - Kategorie : 2 und 3.  
- Für Zonen 1 & 2, 21 & 22.  
- Bei Durchgangsbohrungen muss mit einer Gegenmutter aus Messing montiert werden.  
- Einsatz Temperatur : - 35°C bis + 95°C.  
- Einsatz Temperatur : - 20°C bis + 80°C für M12-PG 07.  
- Schutzart : IP 66 & 68 mit Gewindedichtung.  
- Achtung : In Zonen 21 & 22, muss die Gewindedichtung montiert sein.  
- Gemäss Normen : EN 60079-0, EN 60079-7, EN 60241-0 und EN 60241-1.



**CABLE GLAND EC x**  
**Model SIB-TEC in Plastic**  
For potentially explosive areas,type of protection Ex e II  
**Attestation of conformity LCIE 07 ATEX 6082 X**  
According to directive 94/9/CE

**Function :**

- The EC x Cable glands model SIB-TEC, are used for the entry of cables into metallic or plastics boxes.  
- The EC x Cable glands model SIB-TEC guarantee the tightness between the cables and the boxes.  
- A clamping device shall be applied.

**Technical Specifications :**

- Type of protection : Ex e.  
- Device : II - Category : 2 and 3.  
- Zones 1 & 2, 21 & 22.  
- Assembling with brass lock nut in no screwed boxes.  
- Application temperature: - 35°C to + 95°C.  
- Application temperature: - 20°C to + 80°C for M12 -PG07.  
- Protection type: IP66 & 68 with threadsealing.  
- Warning: the threadsealing must be assembled if utilisation in zones 21 & 22.  
- According to : EN 60079-0, EN 60079-7, EN 60241-0 and EN 60241-1.

Tél.: 03-87-79-20-22 / Fax: 03-87-57-32-45

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