



TEST CERTIFICATE

Fifth addition to number E-01.02.C07

LOAD CELL TYPE TA-1

Issued by: Secretaria d'Indústria - Generalitat de Catalunya (Notified Body number 0315)
Avinguda de la Diagonal, 405 bis
E-08008 BARCELONA SPAIN

In accordance with: Paragraph 8.1 of the European Standard "Metrological aspects of non-automatic weighing instruments" EN 45501:1992(+AC:1993). The applied error fraction p_i with reference to paragraphs 3.5.4 and 4.12 of this standard is 0,7. Following paragraph 4.12 of this standard, the tests have been performed according to the OIML International Recommendation, OIML R 60 (2000).

Issued to: SENSOCAR, S.A.
Carrer Gèminis, 77, nau 2, P.I.Can Parellada
E-08228 TERRASSA SPAIN

In respect of: the model of a **load cell**, tested as part of a non-automatic weighing instrument.
Manufacturer: SENSOCAR, S.A..
Type: TA-1, versions TA-0 and TA-1.
This fifth addition complements the test certificate number E-01.02.C07, relating to addition of a new minimum dead load output return in version TA-1.

Characteristics:

Version	TA-0												
Classification	C4↓						C6↓						
Maximum number of LC verification intervals n_{LC}	4000						6000						
Maximum capacity E_{max}	30	50	75	100	150	200	250	300	400	500	750	kg	
Ratiominimum LC verification interval $Y=E_{max}/V_{min}$	15000												
Version	TA-1												
Classification	C4↓												
Maximum number of LC verification intervals n_{LC}	4000												
Maximum capacity E_{max}	400	500	750	1000	1500	2000							kg
Ratiominimum LC verification interval $Y=E_{max}/V_{min}$	15000												

additional marking	temperature limits	rated output	impedance input	minimum dead load	safe overload
--	-10°C/+40°C	C = 2 mV/V	$R_{LC} = 350 \Omega$	$E_{min} = 0 \text{ kg}$	$E_{lim}/E_{max} = 150\%$

The main characteristics are shown in the descriptive annex, which is an integral part of the test certificate and consists of 4 pages. The type is described in the submitted technical documentation, identified with number 15/01. The first addition is described in the submitted technical documentation, identified with number 23/02. The second addition is described in the submitted technical documentation, identified with number 13/04. The third addition is described in the submitted technical documentation, identified with number 17/04. The fourth addition is described in the submitted technical documentation, identified with number 02/05. The changes covered by this addition are described in the submitted additional technical documentation, identified with number 22/06.

For delegation of Secretari d'Indústria

THE HEAD OF THE SERVICE OF AUTOMOBILES AND METROLOGY

Lluís Gasull i Poch

Barcelona, 21 November 2006

Generalitat de Catalunya
Departament de Treball i Indústria
Secretaria d'Indústria
Subdirecció General de Seguretat Industrial
Servei d'Automòbils i Metrologia
Barcelona

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This test certificate refers only to metrological requirements.

This test certificate cannot be used without applicant's authorization.



Descriptive annex to fifth addition to the test certificate number E-01.02.C07.

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Descriptive annex to fifth addition to the test certificate number E-01.02.C07.

1.- Name and type of the instrument.

Load cell type TA-1.

Manufactured by:

SENSOCAR, S.A.
Carrer Géminis, 77, nau 2, P.I.Can Parellada
E-08228 TERRASSA SPAIN

Using the mark:

SENSOCAR

2.- Description of the modification.

This annex to fifth addition to the test certificate number E-01.02.C07 describes a modification of the type TA-1, versions TA-0 and TA-1.

This fifth addition to the test certificate number E-01.02.C07 is relating to addition of a new minimum dead load output return in version TA-1.

This fifth addition to the test certificate number E-01.02.C07 affects paragraph 3.2 of the annex to fourth addition number E-01.02.C07.

Paragraph 2 of the annex to the test certificate number E-01.02.C07 and paragraph 3.1 of the annex to first addition number E-01.02.C07 were modified and replaced for paragraph 3.1 of the annex to fourth addition number E-01.02.C07.

Paragraph 3.1 of the annex to the test certificate number E-01.02.C07, paragraph 3.2 of the annex to first addition number E-01.02.C07, paragraph 3.1 of the annex to second addition number E-01.02.C07 and paragraph 3.1 of the annex to third addition number E-01.02.C07 were modified and replaced for paragraph 3.2 of the annex to fourth addition number E-01.02.C07

Paragraph 4 of the annex to the test certificate number E-01.02.C07 and paragraph 3.3 of the annex to first addition number E-01.02.C07 were modified and replaced for paragraph 3.2 of the annex to second addition number E-01.02.C07.

Paragraph 7 of the annex to the test certificate number E-01.02.C07, paragraph 3.2 of the annex to first addition number E-01.02.C07 and paragraph 3.3 of the annex to second addition number E-01.02.C07 were modified and replaced for paragraph 3.3 of the annex to fourth addition number E-01.02.C07

Figure 3 of the annex to the test certificate number E-01.02.C07 and Figure 3 of the annex to first addition number E-01.02.C07 were modified and replaced for new Figure 3 of the annex to second addition number E-01.02.C07.





Descriptive annex to fifth addition to the test certificate number E-01.02.C07.

3.- Text after modification.

Paragraph 3.1 of the annex to the test certificate number E-01.02.C07, paragraph 3.2 of the annex to first addition number E-01.02.C07, paragraph 3.1 of the annex to second addition number E-01.02.C07, paragraph 3.1 of the annex to third addition number E-01.02.C07 and paragraph 3.2 of the annex to fourth addition number E-01.02.C07 become in paragraph 3.1 of this descriptive annex.

3.1.- Metrological characteristics.

Load cell type TA-1, version TA-0, has the following metrological characteristics and information for compatibility of modules:

Version	TA-0											--
Classification	C4↓					C6↓						--
Additional marking	---											--
Maximum number of LC verification intervals n_{LC}	4000					6000						--
Constructive material	Steel or stainless steel					Steel						--
Maximum capacity E_{max}	30	50	75	100	150	200	250	300	400	500	750	kg
Minimum dead load, relative E_{min}/E_{max}	0											%
Ratio of minimum LC verification interval $Y = E_{max}/v_{min}$	15000											--
Minimum dead load output return $Z = E_{max}/2DR$	6000											--
Rated output C	2											mV/V
Maximum excitation voltage	15											V
Input impedance R_{LC}	350											Ω
Minimum limit temperature rating T_{min}	-10											°C
Maximum limit temperature rating T_{max}	+40											°C
Safe overload E_{lim}/E_{max}	150											%
Fraction maximum permissible error p_{LC}	0,7											--

Load cell type TA-1, version TA-0, can have other maximum capacities from 30 kg to 750 kg, respecting always its metrological and constructive characteristics, according to OIML R60.

Load cell type TA-1, version TA-1, has the following metrological characteristics and information for compatibility of modules:

Version	TA-1							--
Classification	C4↓							--
Additional marking	---							--
Maximum number of LC verification intervals n_{LC}	4000							--
Constructive material	Steel or stainless steel							--
Maximum capacity E_{max}	400	500	750	1000	1500	2000		kg
Minimum dead load, relative E_{min}/E_{max}	0							%



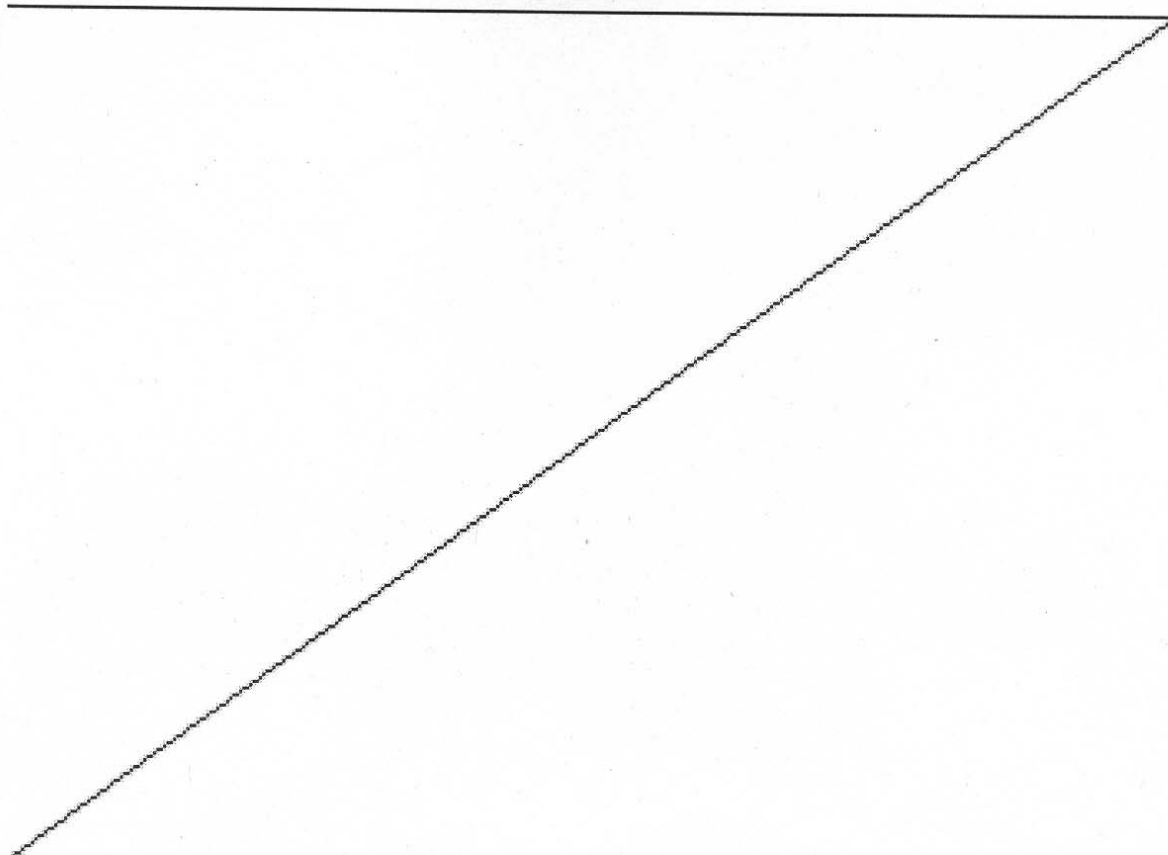
Descriptive annex to fifth addition to the test certificate number E-01.02.C07.

Ratio of minimum LC verification interval	$Y = E_{max} / v_{min}$	15000	--
Minimum dead load output return	$Z = E_{max} / 2DR$	6000	--
Rated output	C	2	mV/V
Maximum excitation voltage		15	V
Input impedance	R_{LC}	350	Ω
Minimum limit temperature rating	T_{min}	-10	$^{\circ}\text{C}$
Maximum limit temperature rating	T_{max}	+40	$^{\circ}\text{C}$
Safe overload	E_{lim} / E_{max}	150	%
Fraction maximum permissible error	p_{LC}	0,7	--

Load cell type TA-1, version TA-1, can have other maximum capacities from 400 kg to 2000 kg, respecting always its metrological and constructive characteristics, according to OIML R60.

Another characteristics are:

Tolerance of nominal sensitivity	$\pm 0,02$	mV/V
Tolerance of input impedance	± 5	Ω



File Number **18/31704069** English translation from the original in Spanish**TEST REPORT****Degrees of Protection Provided by Enclosures
(IP Code)****Petitioner's Reference: SENSOCAR, S.A.U.**Customer Address: C/ Geminis, 77
08228 Terrassa (Barcelona)**Equipment: Load cell**

Brand:	SENSOCAR	Model:	TA-1
s/n:	70038/05.18	Internal identification number:	6501/1

Result:

The equipment described before has been tested according to the applied specifications* and has been found in conformity with a degree of protection:

Degree of protection (IP): IP6X

* See applied specifications in section 1.4.

Applied Standards:

UNE-EN 60529:2018 +/A1:2018 +/A2:2018 (EN 60529:1991 +/A1:2000 +/A2:2013)

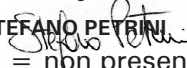
Date of issue: Bellaterra, June 29, 2018Albert Marginet Morales
Technical Manager
Electrical and Electronics
LGAi Technological Center S.A.

The results refer only and exclusively to the sample, product or material delivered for testing in "Equipment" section above. The equipment has been tested under conditions stipulated by standard(s) quoted in this document.

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This is the first page of the document, which consists of 10 pages of which 5 are annexes.

In case of discrepancy between English and Spanish version, the Spanish version prevails over the English one.

TEST REPORT Secondo i seguenti Standard / According to following Standards		
Test Methods	UNE-EN 60529:2018 +A2:2018	
Test specification	E-mail object: SENSOCAR (KG-18030755E8-1) ENSAYO IPX9K of Mr. Cristian Fernandez Pereira sent on 9 th July 2018	
UNE-EN 60529:2018 +A2:2018 Par. 14.2.9 Test for second characteristic numeral 9 with a spray nozzle (IPX9)	Compliant	
Richiedente / Applicant's name	LGAI Technological Center S.A.	
Indirizzo / Address	Campus UAB – Ronda de la Font del Carme 08193 Bellaterra, Barcelona (SPAIN)	
Produttore / Manufacturer	SENSOCAR, S.A.U.	
Indirizzo / Address	Pol. Ind. Can. Parellada C/Geminis, 77 08228 Terassa Barcelona (SPAIN)	
Dispositivo sottoposto ai test / Device Under Test	Load cell – Model TA-1	
Data di emissione / Date of issue	12 th July 2018	
Validità / Validity	Vedi sezione 1.2 / See section 1.2	
Test report redatto da / Author of Test report	Thierry Pivadori	
Tecnico/i di prova Engineer/s	Thierry Pivadori	Firmato digitalmente da STEFANO PETRINI 
Responsabile prova (+ firma) / Test Manager (+ signature)	Stefano Petrini	O = non presente C = IT
Approvato da / Approved by	Silvano Chialina Responsabile del laboratorio / Head of the Laboratory	
Laboratorio / Testing Laboratory	Emilab Srl a Socio Unico	
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