



TEST CERTIFICATE

First addition to number E-04.02.C04
 LOAD CELL TYPE CCI

Issued by: Direcció General d'Energia, Mines i Seguretat Industrial - 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: ASCELL SENSOR, S.L.
 Avinguda Congost, núm.56, nau 3, Polígon Industrial Congost
 E-08760 MARTORELL SPAIN

In respect of: The model of a **load cell**, tested as part of a non-automatic weighing instrument.
 Manufacturer: ASCELL SENSOR, S.L.
 Type: CCI.
 This first addition complements the test certificate number E-04.02.C04, relating to addition of a new maximum number of LC verification intervals and a new ratio of minimum LC verification interval.

Characteristics:

Classification	C3↓				C4,5↓				--
Maximum number of LC verification intervals n_{LC}	3000				4500				--
Maximum capacity E_{max}	16000	20000	30000	40000	50000	60000	80000	kg	
Ratio minimum LC verification interval $Y = E_{max}/V_{min}$	10000								--
additional marking	temperature limits	rated output	impedance input	minimum dead load	safe overload				
--	-10°C/+40°C	C = 2 mV/V	$R_{LC} = 700 \Omega$	$E_{min} = 0 \text{ kg}$	$E_{lim}/E_{max} = 120\%$				

The main characteristics are shown in the descriptive annex, which is an integral part of the test certificate and consists of 3 pages.

The type is described in the submitted technical documentation, identified with number 18/04. The changes covered by this addition are described in the submitted additional technical documentation, identified with number 55/04.

For delegation of Director General
 d'Energia, Mines i Seguretat Industrial's signature

THE HEAD OF THE SERVICE OF AUTOMOBILES AND METROLOGY


 Joan Pau Clar i Guevara

Barcelona, 5 November 2004



Generalitat de Catalunya
 Departament de Treball i Indústria
 Direcció General d'Energia, Mines
 i Seguretat Industrial
 Servei d'Automòbils i Metrologia
 Barcelona

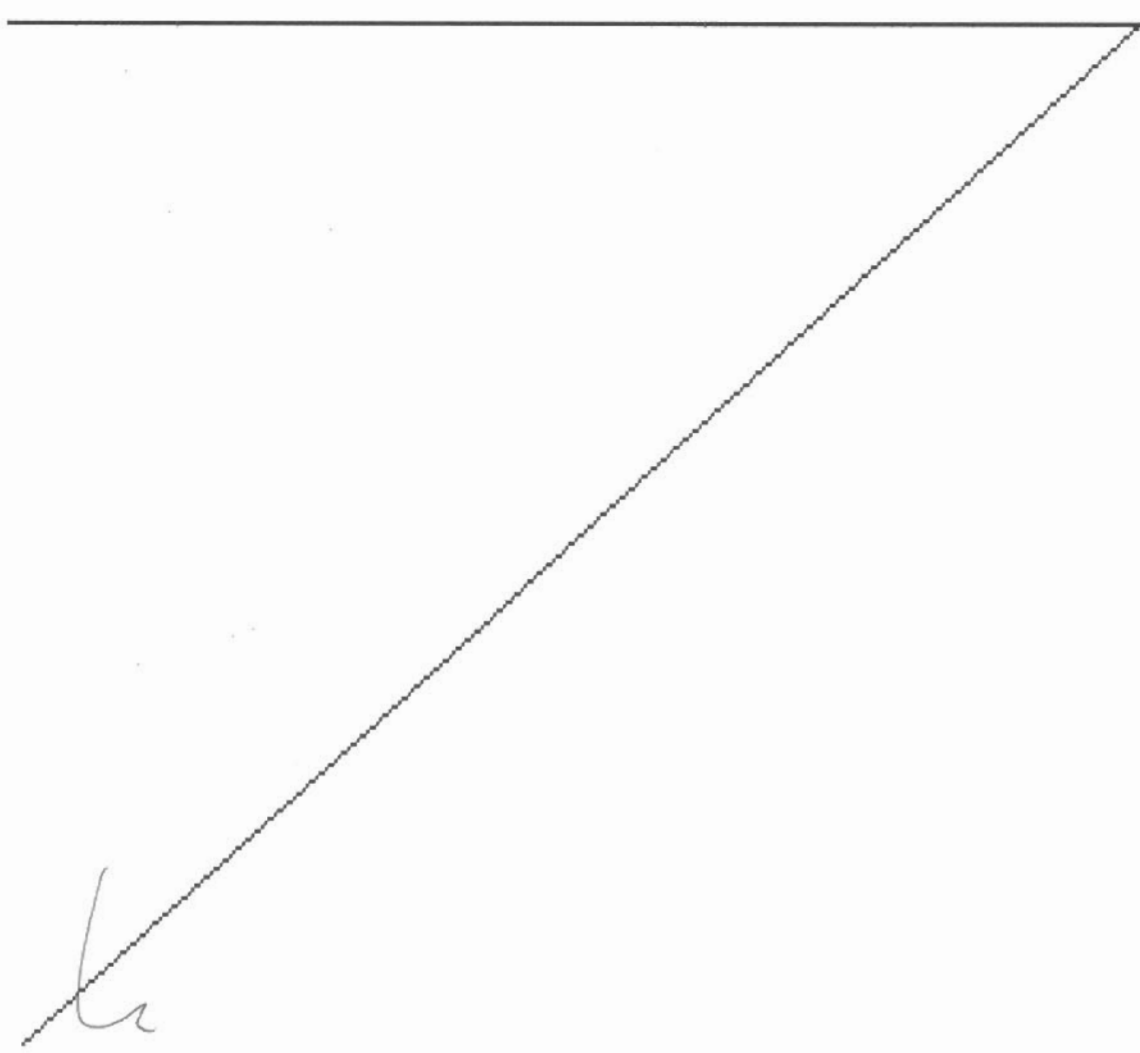
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 This test certificate refers only to metrological requirements.
 This test certificate cannot be used without applicant's authorization.



Descriptive annex to first addition to the test certificate number E-04.02.C04.

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Descriptive annex to first addition to the test certificate number E-04.02.C04.

1.- Name and type of the instrument.

Load cell type CCI.

Manufactured by:

ASCELL SENSOR, S.L.
 Avinguda Congost, núm.56, nau 3, Polígon Industrial Congost
 E-08760 MARTORELL SPAIN

It is using its trade mark.

2.- Description of the modification.

This annex to first addition to the test certificate number E-04.02.C04 describes a modification of the type CCI.

This first addition to the test certificate number E-04.02.C04 is relating to addition of a new maximum number of LC verification intervals (n_{LC}) and a new ratio of minimum LC verification interval (Z).

This first addition to the test certificate number E-04.02.C04 affects paragraph 3.1 and paragraph 7 of the annex to the certificate of the test certificate number E-04.02.C04.

3.- Text after modification.

Paragraph 3.1 of the annex to the certificate of the test certificate number E-04.02.C04 is modified and replaced by paragraph 3.1 of this descriptive annex.

Paragraph 7 of the annex to the certificate of the test certificate number E-04.02.C04 is modified and replaced by paragraph 3.2 of this descriptive annex.

3.1.- Metrological characteristics.

Load cell type CCI has the following metrological characteristics and information for compatibility of modules:

Classification		C3↓		C4,5↓				--	
Additional marking		---							--
Maximum number of LC verification intervals	n_{LC}	3000			4500				--
Maximum capacity	E_{max}	16000	20000	30000	40000	50000	60000	80000	kg
Minimum dead load, relative	E_{min}/E_{max}	0							%
Ratio of minimum LC verification interval	$Y = E_{max}/v_{min}$	10000							--





Descriptive annex to first addition to the test certificate number E-04.02.C04.

Minimum dead load output return	$Z = E_{max} / 2DR$	3000	4500	--
Rated output	C		2	mV/V
Maximum excitation voltage			15	V
Input impedance	R_{LC}		700	Ω
Minimum limit temperature rating	T_{min}		-10	$^{\circ}C$
Maximum limit temperature rating	T_{max}		+40	$^{\circ}C$
Safe overload	E_{lim} / E_{max}		120	%
Fraction maximum permissible error	ρ_{LC}		0,7	--

Load cell type CCI can have other maximum capacities from 16000 kg to 80000 kg, respecting always its metrological and constructive characteristics, according to OIML R60 (2000).

Another characteristics are:

Constructive material	Steel	--
Tolerance of nominal sensitivity	$\pm 0,1$	mV/V
Tolerance of input impedance	± 70	Ω

3.2.- Tests performed.

Tests have been performed with load cell with the following identification and characteristics:

Type	Serial number	E_{max}	$Y = E_{max} / v_{min}$	$Z = E_{max} / 2DR$	n_{LC}
CCI	4051996/2003	16000 kg	10000	3000	3000
				4500	4500

Tests performed with load cell:

General tests for load cells	R60 No.	approved
Temperature test and repeatability (at 20, 40, -10 and 20 $^{\circ}C$)	5.1.1, 5.4; A.4.1	+
Temperature effect on minimum dead load output (at 20, 40, -10 and 20 $^{\circ}C$)	5.5.1.3; A.4.1	+
Creep test (at 20, 40 and -10 $^{\circ}C$)	5.3.1; A.4.2	+
Minimum dead load output return (at 20, 40 and -10 $^{\circ}C$)	5.3.2; A.4.3	+
Barometric pressure effects at room temperature	5.5.2; A.4.4	+
Humidity test, cyclic: CH-marked (or without marked)	5.5.3.1; A.4.5	+
Humidity test, static: SH-marked	5.5.3.2; A.4.6	-

