Nederlands Meetinstituut

EC type-approval certificate

Number **T5809** revision 6
Project number 303128

Issued by	NMi Certin B.V. Hugo de Grootplein 1 3314 EG Dordrecht The Netherlands Notified Body Number 0122
In accordance with	The Council Directive 90/384/EEC on non-automatic weighing instruments.
Applicant	Dibal S.A. c/ Astintze, 24 Pol. Ind. Neinver 48016 DERIO VIZCAYA SPAIN
In respect of	A class (III), electronic, self indicating, single-, multi-interval or multi-range, **non-automatic weighing instrument**, intended to be used for direct sales to the public. Manufacturer : Dibal Type : K-series
Characteristics	$n \leq 6000$ divisions (single interval) $n \leq 3000$ divisions (per partial weighing range) maximum of two partial weighing ranges $3\ kg \leq Max \leq 30\ kg$ $e \geq 1\ g$ Temperature range -10 °C / 40 °C In the description number T5809 revision 6 further characteristics are described.
Valid until	10 November 2010

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Subsidiary companies:
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EC type-approval certificate

Number **T5809** revision 6
Project number 303128

Description and documentation	The instrument is described in the description number T5809 revision 6 and documented in the documentation folder T5809-6 appertaining to this EC type-approval certificate.
Remarks	This revision replaces the earlier versions, including its documentation folder.

Delft, 16 June 2003
NMi Certin B.V.

P.P.M. van Enckevort
Manager Certification Delft

1 General information about the non-automatic weighing instrument

All properties of the non-automatic weighing instrument, whether mentioned or not, may not be in conflict with the legislation.

1.1 Essential parts

The electronics.
The mechanical assembly with load cell.

EMC protection measures:
- The A/D board is shielded with a metal cover;
- The incoming main power supply lines are filtered;
- For the 2-bodies model; Ferrite bead around the printer interface cable to the main board;
- The base is made of metal;
- The load receptor is made of metal, or covered with a conductive layer;
- The printer is conductive connected to the base;
- For the 2 bodies model, shown in the drawing "Sobremesa / low" 2 bodies model, drawing number K-255 Sob./Low2B, the indicator housing is painted with a conductive coating;
- For the hanging model the housing is made of metal (stainless steel) or protected with metal plates or conductive coating.

1.2 Essential characteristics

The instrument can be used in a master/slave configuration, as a master or as a slave.
The instrument can be used as a self-service scale.

The applied error fraction p_i is 0.5.
Power supply:
- 230 V AC, 50 Hz or 110 V AC, 60 Hz or 110 to 240Vac/dc, 50/60Hz;
- 12 V DC, by internal battery;
- 12 V DC external power supply.

1.3 Essential shapes

The non-automatic weighing instrument is built according to drawings:
- "Sobremesa / low" desk model, drawing number K-255 Sob./Low;
- "Torre / high" tower model, drawing number K-255 Torre /High;
- "Colgante / hanging" stainless steel model, drawing number E-140CTE/Hang.SS;
- "Colgante / hanging" plastic model, drawing number E-140CTE/Hang;
- "Colgante / hanging" plastic model, drawing number 4521600 page 1;
- "Colgante / hanging" plastic model, drawing number 4521800 page 1;
- "Sobremesa / low" 2 bodies model, drawing number K-255 Sob./Low2B;
- "K-250 Dos Cuerpos", drawing number 73250D40;
- "K-255 Dos Cuerpos", drawing number 73255D40;
- "K-250 Dos Cuerpos", drawing number 73250D45;
- "Autoservicio Alfa", drawing number 4521500 page 1.

The data plate is secured against removal by sealing or will be destroyed when removed.
To secure components that may not be dismantled or adjusted by the user, the non-automatic weighing instrument has to be secured in a suitable manner on the locations indicated in drawing:

- "Precintos serie K" desk model and tower model, drawing number 31456;
- "Precintos serie K CTE. INOX" hanging model stainless steel, drawing number 11676;
- "Precintos serie K CTE." hanging model, drawing number 11677;
- "Precinto K Colgante" hanging model, drawing number 31871;
- "Precintos serie K Dos Cuerpos" 2 bodies model, drawing number 11678;
- "Precinto K 2 Cuerpos", drawing number 31838;
- "Precinto K 2 Autoservicio", drawing number 31870.

The securing component has to bear either:
- a mark of the manufacturer laid down in a notified body approved quality system (Annex II of the directive 90/384/EEC), or
- an official mark of a Member State of the EEC, or an other party to the EEA agreement.

Inside the cabinet is a calibration lock, located on the main board.

1.4 Conditional parts

The non-automatic weighing instrument may be equipped with peripheral equipment which is used for the applications listed in article 1(2)(a) of the EC Directive (90/384/EEC), if the peripheral equipment is certified to be connected to an EC type-approved non-automatic weighing instrument by a Notified Body appointed to certify non-automatic weighing instruments according to paragraph I of Annex II of the EC directive on Non-Automatic Weighing Instruments.
The non-automatic weighing instrument may be equipped with an Electronic Point of Sale (EPoS) or an Electronic Cash Register (ECR), if these EPoS and ECR are certified to be connected to an EC type-approved non-automatic weighing instrument by a Notified Body appointed to certify non-automatic weighing instruments according to paragraph I of Annex II of the EC Directive on Non-Automatic Weighing Instruments.
The non-automatic weighing instrument may be equipped with Electronic Funds Transfer equipment (EFT/ECU), if these EFT/ECU represent only the price total on the display.
If the non-automatic weighing instrument is liable to be tilted the instrument must be equipped with a level indicator with a sensitivity of at least 2 mm for a tilt of 2/1000.
The hanging models are placed in a fixed position and do not have a level indicator.

1.5 Non-essential parts

The non-automatic weighing instrument may be connected to non-essential devices, for example but not limited to bar code readers, foot switches, second display's and cash drawers, provided that:
- They do not present primary data used for purposes mentioned in article 1(2)(a) of the EC Directive (90/384/EEC) unless the "preliminary observations" in Annex 1 of this directive is satisfied.
- They do not lead to an instrument having other essential characteristics than those fixed by this type-approval document.

External power supply.

2 Information about the main constituent parts of the non-automatic weighing instrument

2.1 The electronics

2.1.1 Essential parts

Description	Drawing number	Rev.	Remarks
MK1CPU1 board MK1CPU1 Parts list	60146 50146	A A	-- 5 pages
MK1CPU2 board MK1CPU2 Parts list	60152 50152	C C	-- 4 pages
MK1CPU4 board MK1CPU4 Parts list	60152 50152	D D	-- 5 pages
MK1CPU4 Parts list	50152	E	5 pages

2.1.2 Essential characteristics

List of devices:
- determination stability of equilibrium;
- zero indicator;
- semi-automatic zero-setting;
- automatic zero-setting;
- initial zero-setting;
- zero-tracking;
- semi-automatic subtractive tare weighing;
- preset tare;
- indication of stable equilibrium;
- gravity compensation;
- calibration / set-up mode via a switch on the main board;
- acting upon significant faults;
- checking the display;
- price calculation.

When equipped with a printer the following devices may be present:
- indications other than primary indications;
- indication of additional information;
- memory storage;
- non-weighed articles;
- totalisation with exchanges between several scales;
- multi-vendor;
- price labeling instrument;

- PLU-functions.

Connections:
- the minimum value allowed for the signal voltage per verification scale interval is 1.2 μV;
- the excitation power supply for the load cell is 8 V DC ;
- the minimum input impedance of the load cell is 300 Ω;
- the maximum input impedance of the load cell is 500 Ω;
- the maximum cable length for the connection between the indicator and the junction box or load cells is 5.5 m/mm^2.

Software:
- the software has the identification number: OIML 2
- the identification number will be displayed at start-up.

2.1.3 Conditional parts

Description	Drawing number	Rev.	Remarks
Modelo K-1 Alimentacion K1FACC0	60145	A	Power supply
Fuente 24 V Serie K K1FACC3	60156	D	Power supply
Fuente 7.5 V Serie K K1FACE2	60155	C	Power supply
Fuente alimentación serie KMK1FAC0	60166	A	Power supply
Modelo L Fuente de Alimentation MLFACD1.PCB	60162	B	Power supply
Cargador serie KMK1CAR1	60163	B	--

The interface section is located on the main board. The non-automatic weighing instrument may be equipped with one or more of the following protective interfaces that have not to be secured:
- RS232C/RS422 (8 pins);
- RS485 for interconnection between scales;
- Cashdrawer output;
- External power supply.

2.1.4 Non-essential parts

Numeric display;
Alpha numeric display;
Keyboard;
Internal printer;
Internal battery.

2.2 The mechanical assembly with load cell

2.2.1 Essential parts

Any load cell(s) may be used for instruments under this EC type-approval certificate, provided the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) or a test certificate (EN45501) issued for the load cell by a Notified Body responsible for type examination under Directive 90/384/EEC.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 3, 2000, No 11), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to EN45501 has been conducted on this load cell.
- The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in the above WELMEC 2 document, at the time of EC verification or declaration of EC conformity of type.
- The load transmission must conform to one of the examples shown in the WELMEC guide for load cells (WELMEC 2.4).

2.2.2 Essential shapes

See drawings:

Description	Drawing number	Rev.	Remarks
Sobremesa / Low (exploded view)	4512400	00	Desk model
Torre / High (exploded view)	4512500	00	Tower model
Colgante / hanging (exploded view)	4516400	00	Stainless steel mod.
Colgante / hanging (exploded view)	4516500	00	Plastic model
Colgante / hanging (exploded view)	4521600 page 2	00	Plastic model
Colgante / hanging (exploded view)	4521800 page 2	00	Plastic model
Sobremesa / low (exploded view)	4516600	00	2 bodies model
K-255 Dos Cuerpos (exploded view)	4519000	00	2 bodies model
K-250 Dos Cuerpos (exploded view)	4518900	00	2 bodies model
K-250 Dos Cuerpos (exploded view)	4519100	00	2 bodies model
Autoservicio Alfa (exploded view)	4521500 page 2	00	Self service model

3 Approval conditions

See chapter 1.3, essential shapes.

4 Seals and verification marks

See chapter 1.3, essential shapes.

5 CE-mark of conformity and inscriptions

The marks, facilities for the marks and the inscriptions on the non-automatic weighing instrument fulfill the requirements of article 1 of Annex IV.

Nederlands Meetinstituut

Member State
The Netherlands

OIML Certificate N° R76/1992-NL1-03.17
Project number 303128

OIML CERTIFICATE OF CONFORMITY

Issuing authority

Name: NMi Certin B.V.

Address: Hugo de Grootplein 1, Dordrecht

Person responsible: P.P.M. van Enckevort

Applicant

Name: Dibal S.A.

Address: c/ Astintze, 24
Pol. Ind. Neinver
48016 DERIO VIZCAYA
SPAIN

Manufacturer of the certified pattern

Name: Dibal S.A.

Address: c/ Astintze, 24
Pol. Ind. Neinver
48016 DERIO VIZCAYA
SPAIN

Identification of the certified pattern

Type : K-series

$n \leq 6000$ divisions (single interval)
$n \leq 3000$ divisions (per partial weighing range)
maximum of two partial weighing ranges
$3\ kg \leq Max \leq 30\ kg$
$e \geq 1\ g$

Temperature range -10 °C / 40 °C

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report, the type-approval certificate and the description with number T5809 and the appertaining documentation folder), with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

R76
edition 1992
for accuracy class (III)

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OIML Certificate N° R76/1992-NL1-03.17

Member State
The Netherlands

Project number 303128

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation(s).

This certificate does not bestow any form of legal international approval.

The conformity was established by tests described in the associated test report:
- N° R76/1992-NL-00.26, that includes 56 pages;
- N° R76/1992-NL-01.18A, that includes 46 pages;
- N° R76/1992-NL-01.18B, that includes 37 pages;
- N° R76/1992-NL-01.18C, that includes 16 pages;
- N° R76/1992-NL-01.18D, that includes 16 pages;
- N° R76/1992-NL-01.18E, that includes 16 pages;
- N° R76/1992-NL-01.49, that includes 15 pages;
- N° R76/1992-NL-02.25, that includes 31 pages;
- N° R76/1992-NL1-03.17A, that includes 28 pages;
- N° R76/1992-NL1-03.17B, that includes 14 pages.

The issuing authority
P.P.M. van Enckevort
Manager Certification Delft

16 June 2003

The CIML member
G.J. Faber

16 June 2003

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