



Number **T10040** revision 0  
Project number 607407  
Page 1 of 1

Issued by NMI Certin B.V.  
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Notified Body number 0122

In accordance with The Metrologiewet (Stb. 2006, 137) as Dutch implementation of Directive 2004/22/EC on measuring instruments (MID).

Manufacturer Dibal S.A.  
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In respect of A model of an **Automatic Catchweighing instrument**, intended to be used as a checkweigher, weightgrader, weigh labeler or weigh price labeler.  
Type : LS-3000, CW-3000 and GW-3000


Characteristics Accuracy class XIII(1) and Y(a)  
Electromagnetic environment class E1 or E2  
Temperature range -10 °C / +40 °C

In the description number T10040 revision 0 further characteristics are described.

Valid until 23 November 2016

Description and documentation The instrument is described in the description number T10040 revision 0 and documented in the documentation folder T10040-1, appertaining to this EC-type examination certificate.

Dordrecht, 23 November 2006  
NMI Certin B.V.

  
Ing. C. Oosterman  
Manager Product Certification

## 1 General information about the automatic catchweighing instrument

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

### 1.1 Essential parts

The automatic catchweighing instrument is composed of the following parts:

- See drawing Block Diagram, drawing number 1;
- The electronics;
- The mechanical assembly with load cell.

EMC protection measures:

- Data cable not shielded, for the electromagnetic environment class E1;
- Data cable shielded and with ferrite core two turns and close to the housing, for the electromagnetic environment class E2.

Specification of the use ferrite:

Impedance $\Omega$			
1 turn		2 turns	
25 MHz	100 MHz	25 MHz	100 MHz
81 $\Omega$	141 $\Omega$	314 $\Omega$	555 $\Omega$

### 1.2 Essential characteristics

Max  $\leq$  60 kg

Min  $\geq$  20 e for class Y(a)

Min  $\geq$  50 e for class XIII(1)

e  $\geq$  1 g

n  $\leq$  3000 divisions

T  $\leq$  -(Max - e)

Maximum belt speed 38.1 m/min.

Weighing speed 80 packages per minute.

Power supply: 230 V AC, 50/60 Hz.

The automatic catchweighing instrument is made for determining the dynamic mass.

Software specification refer to WELMEC GUIDE 7.2:

- Software type: P;
- Risk class: B;
- Extension S (Software separation).

The software version and identification number will be displayed from the initial screen. Press "MENU" to enter in the main menu, press the key "7" to enter in Test Mode, then press "2" to select Versions. The software of the versions of the different CPU's is shown. The metrological relevant software is shown in:

		Checkweigher and weightgrader	Weigh labeler and weigh price labeler
2	Weight	V-1.01	V-1.01
3	Display	V-1.28	V-1.27
5	FIT	P73	P73

### 1.3 Essential shapes

The automatic catchweighing instrument is built according to the drawings:

Description	Drawing nr.	Rev.	Remarks
Product specification	2	-	-
LS 3000 PARTE 1/PART 1	EPL001	-	-
LS 3000 PARTE 2/ PART 2	EPL002	-	-
LS 3000 PARTE 3/ PART 3	EPL003	-	-
LS 3000 PARTE 5.1/ PART 5.1	EPL005	-	-
LS 3000 PARTE 6/ PART 6	EPL008	-	-
LS 3000 PARTE 7/ PART 7	EPL009	-	-

Markings:

- The markings have to fulfill the requirements stated in the legislation.
- The data plate is fixed to the console of the automatic catchweigher and 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 automatic catchweighing instrument is secured by software. The software counter number will be displayed from the initial screen.

Press "MENU" to enter in the main menu, press the key "7" to enter in Test Mode, then press "6" to select Weigh Adjust. The scale will show the value of the Legal for Trade Parameter.

The value of the shown in "Legal for trade" must be the same value as mentioned on the "Legal mark plate".

This "Legal mark plate" is secured against removal by sealing or will be destroyed when removed.

## 1.4 Conditional parts

The catchweigher 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 a 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 automatic catchweighing instrument is fitted with a levelling device and a level indicator, unless the instrument is installed in a fixed position. The level indicator has a sensitivity of at least 2 mm for a tilt of 2/1000.

## 1.5 Non-essential parts

In- and out feed roller- or belt conveyor.

The weighing instrument may be connected to non-essential devices, for example but not limited to bar code readers, second display's, external printer, etc. provided that:

- They do not present primary data;
- They do not lead to an instrument having other essential characteristics than those fixed by this type-examination document.

## 2 Information about the main constituent parts of the automatic weighing instrument

### 2.1 The electronics

#### 2.1.1 Essential parts

Description	Drawing number	Rev.	Remarks
Fuente de alimentacion Componente ref.	60195 4503013005	A -	Drawing Power board Parts list (4 pages)
CPU Modelo LP3000 Componente ref.	60196 4503011004	A -	Drawing Main board Parts list (6 pages)

## 2.1.2 Essential characteristics

The following devices can be present:

- Setting device, to fix the limits of mass of the sub-groups;
- Nominal set point, to establish the limits between consecutive sub-groups, accessible for the user;
- Movement counter, to count the number of loads which have moved onto the load receptor;
- Division counter, to count the number of loads in each of the subgroups;
- Sorting device;
- Reject device;
- Device to determine when the stability criteria are fulfilled active during dynamic operation;
- Zero indicating device;
- Initial zero-setting device;
- Semi-automatic zero-setting, (only in static operation);
- Semi-automatic tare weighing device, (only in static operation);
- Tare indicating device;
- Preset tare;
- Printing device;
- Price computing instrument;
- Weigh labelling instrument;
- Weigh-price labelling instrument;
- Static calibration, not accessible for the user;
- Belt speed setting, adjustment range 18.3 – 38.1 m/min, accessible for the user;
- Internal memory;
- Acting upon significant faults;
- Checking of digital part and weighing signal after switch-on of the instrument;
- Software download (only non-metrological relevant software);

## 2.1.3 Conditional parts

The automatic weighing instrument may be equipped with one or more of the following protective interfaces that have not to be secured:

- RS232C;
- Ethernet.

## 2.1.4 Non-essential parts

Display;  
Keyboard;  
Label printer.

## 2.2 The mechanical assembly with load cell

### 2.2.1 Essential parts

Manufacturer	Type	Test certificate nr.	Remarks
HBM	FIT/0...; FIT/1...; FIT/4...	TC6000	

The load transmission is conform to the drawing:

Description	Drawing nr.	Rev.	Remarks
LS 3000 PARTE 1/PART 1	EPL001	-	-

### 2.2.2 Essential characteristics

Excitation power supply 12 V DC.

$e \geq E_{max}/10000$  for  $E_{max} = 10\text{kg}$  or  $20\text{kg}$ ;

$e \geq E_{max}/7500$  for  $E_{max} = 75\text{kg}$

Range		Max weighing belt dimensions [mm]	$E_{max}$ [kg]
[kg]	[g]		
3	1	400*400	10
6	2		20
10	5		
20	10	600*500	75
30	10		
40	20		
60	20		

## 3 Approval conditions

See chapter 1.2, essential characteristics and 1.3, essential shapes.

## 4 Seals and verification marks

See chapter 1.2, essential characteristics and 1.3, essential shapes.