

# EU-type examination certificate

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Issued by

NMi Certin B.V.,  
designated and notified by the Netherlands to perform tasks with respect to  
conformity modules mentioned in article 17 of Directive 2014/32/EU, after  
having established that the Measuring instrument meets the applicable  
requirements of Directive 2014/32/EU, to:

Manufacturer

Quantronix Inc.  
380 South 200 West  
P.O. Box 929  
84025 Farmington, Utah  
United States of America

Measuring instrument

**Multidimensional measuring instrument**

Type : Cubiscan 100-LFT  
Cubiscan 100-TLFT

Further properties are described in the annexes:

- Description T10675 revision 1;
- Documentation folder T10675-2.

Valid until

5 December 2024

Remarks

This revision replaces the earlier version, including its documentation folder.

Issuing Authority

**NMi Certin B.V., Notified Body number 0122**  
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## 1 General information about the multidimensional measuring instrument

All properties of the multidimensional measuring instrument, whether mentioned or not, shall not be in conflict with the legislation.

### 1.1 Essential parts

The electronics;  
The software;  
The sensors.

See block diagrams:

Number	Pages	Description	Remarks
10675/0-01	1	Block diagram Cubiscan 100-LFT	-
10675/1-01	1	Block diagram Cubiscan 100-TLFT	-

EMI protection measures (for model Cubiscan 100-LFT):

- Ferrite on the cable of the power supply to the indicator;
- Ferrite on the combined ultrasonic sensor cables to the indicator;
- Ferrite on the cable of the barcode scanner.

EMI protection measures (for model Cubiscan 100-TLFT):

- Ferrite on the cable of the power supply to the indicator.

### 1.2 Essential characteristics

Principle of operation		reflection of sound		
Maximum dimension		Length	Width	Height
		$\max \leq 60 \text{ cm}$	$\max \leq 60 \text{ cm}$	$\max \leq 120 \text{ cm}$
Minimum dimension		$\min \geq 5 \text{ cm}$	$\min \geq 5 \text{ cm}$	$\min \geq 5 \text{ cm}$
Scale interval		$d \geq 5 \text{ mm}$	$d \geq 5 \text{ mm}$	$d \geq 5 \text{ mm}$
Measuring range(s)		Single interval		
Electromagnetic environment class		E2		
Mechanical environment class		M3		
Climatic environment	temperature range	$-10 \text{ °C} / +40 \text{ °C}$		
	humidity	non-condensing		
	intended location	closed		
Power supply voltage		100 – 240 V AC 50/60 Hz		
Method of operation		semi-automatic		

Limitations of use	rectangular, non-sound-absorbing, objects with regular surfaces
Software identification      Version number	4.xxx (x = 0... 9) or 5.xxx (x = 0... 9)

For model Cubiscan 100-LFT: the software identification is displayed at start-up;  
For model Cubiscan 100-TLFT: Press 'about' and 'version' to display the software identification.  
The multidimensional measuring instrument has embedded software.

## 1.3 Essential shapes

Number	Pages	Description	Remarks
10675/0-02	2	Exploded view of main body Cubiscan 100-LFT	-
10675/1-02	2	Exploded view of main body Cubiscan 100-TLFT	-
10675/0-03	1	Exploded view of display unit Cubiscan 100-LFT	-
10675/1-03	3	Exploded view of display unit Cubiscan 100-TLFT	-
10675/0-04	1	Exploded view of sensor housing	-

Inscriptions:

- The inscriptions have to fulfil the requirements stated in Directive 2014/32/EU Annex I clause 9 and OIML R 129 (2000) clause 8;
- The inscriptions contain limitations of use as mentioned in the essential characteristics;
- The inscriptions plate is fixed to the electronics of the multidimensional measuring instrument and is secured against removal by sealing or will be destroyed when removed.

## 1.4 Conditional parts

Power supply:

- For model Cubiscan 100-LFT:  
Manufacturer: XP Power, type: AEH45US12.
- For model Cubiscan 100-TLFT:  
Manufacturer: CINCON ELECTRONICS CO., LTD, type: TRH50A120Y.

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

- RS232;
- USB (only for model Cubiscan 100-TLFT);
- Ethernet (<30 meters for model Cubiscan-LFT).

The multidimensional measuring instrument may be equipped with peripheral equipment if the peripheral equipment is certified to be connected to a multidimensional measuring instrument by a Notified Body responsible for type examination under Directive 2014/31/EU or Directive 2014/32/EU taking into account the applicable electromagnetic environment class.

## 1.5 Non-essential parts

The multidimensional measuring instrument may be connected to non-essential devices, for example but not limited to bar code readers; second display's, 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 certificate.

Part(s) not subject to legal control (WELMEC 7.2, 2015 clause 2):

The software may contain files or programs that have non-essential properties, for example (but not limited to) invoice modules, database modules and operating system components, provided that they do not lead to an instrument having other characteristics than those fixed by this certificate.

## 2 Information about the main constituent parts of the multidimensional measuring instrument

### 2.1 The electronics

#### 2.1.1 Essential parts

Number	Pages	Description	Remarks
10675/0-05	2	Main board lay out Cubiscan 100-LFT	Including parts list
10675/1-04	2	Main board lay out Cubiscan 100-TLFT	Including parts list

### 2.2 The software

#### 2.2.1 Essential parts

Legally relevant software parts named:

- CS100\_EU\_V4\_320.bin (for model Cubiscan 100-LFT);
- 5\_xxxbox.bin (for model Cubiscan 100-TLFT; x=0...9).

#### 2.2.2 Essential characteristics

Software specification (WELMEC 7.2):

- Software type P;
- Risk Class B;
- Extension T/L/S.

Operating system:

- The software runs directly on the hardware (no operating system).

Legally relevant functions of the software:

- Static adjustment (set-up), not accessible for the user;
- Calculation of dimensional weight;
- Acting upon significant faults;
- Display check (for the remote display, model Cubiscan 100-LFT).

## Security:

- Upon hardware power-up the software is automatically started.

## Software protection:

- The software is placed on an EEPROM;
- The software operates with protected software interfaces.

### 2.2.3 Essential shapes

Number	Pages	Description	Remarks
10675/0-06	1	Software block diagram Cubiscan 100-LFT	-
10675/1-05	1	Software block diagram Cubiscan 100-TLFT	-

## 2.3 The sensors

### 2.3.1 Essential parts

Number	Pages	Description	Remarks
10675/0-07	3	Sensor board lay out	Including parts list

## 3 Seals

To secure components that may not be dismantled or adjusted by the user, the multidimensional measuring instrument has to be secured in a suitable manner on the locations indicated in the drawings:

Number	Pages	Description	Remarks
10675/0-08	1	Sealing of instrument Cubiscan 100-LFT	-
10675/1-06	1	Sealing of instrument Cubiscan 100-TLFT	-

## 4 Conditions for conformity assessment

The marks, facilities for the marks and the inscriptions on the multidimensional measuring instrument fulfil the requirements of Directive 2014/32/EU.

The multidimensional measuring instrument may be connected to a non-automatic weighing instrument provided that this instrument meets the applicable requirements of Directive 2014/31/EU for non-automatic weighing instruments.