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EU Type Examination Certificate

DK0199.611

CombiMeki / CombiMidmeki

AUTOMATIC CHECKWEIGHING INSTRUMENT

Issued by **DELTA Danish Electronics, Light & Acoustics**
EU - Notified Body No. 0199

In accordance with the requirements for the automatic weighing instrument of Directive 2014/32/EU of the European Parliament and Council on Measuring Instruments (MID).

Issued to **Mekitec Oy**
Teknologiantie 3
90190 Oulu
Finland

In respect of Automatic checkweigher designated CombiMeki / CombiMidmeki.with variants of modules of load receptor and load cell.

Accuracy class	XIII(1) / Y(a)
Maximum capacity:	$\leq$ 5000 g
Verification scale interval: e	= $\geq$ 1 g
Number of Verification Scale Intervals (n):	$\leq$ 2500

Variants of modules and conditions for the composition of the modules are set out in the annex.

The conformity with the essential requirements in Annex 1 and the specific requirements in Annex VIII, chapter I & II of the Directive 2014/32/EU is met by the application of OIML R51-1:2006, OIML D11:2013 section 12 & 13 with severity level 3, WELMEC Guide 7.2:2011, and WELMEC Guide 8.16-1:2013.

The principal characteristics and approval conditions are set out in the descriptive annex to this certificate.

The annex comprises 8 pages.

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Descriptive annex

Contents

1. Name and type of instrument and modules

The automatic checkweigher / catchweigher designated Combimeki / CombiMidmeki is a dynamic weighing instrument with belt conveyor manufactured by Mekitec Oy.

2. Description of the construction and function

2.1 Construction

The Combimeki / CombiMidmeki is a combined X-ray and checkweiging unit either installed as separate units or integrated on one frame. The X-ray unit functions as infeed belt conveyor to the checkweigher. The checkweigher consists of a belt conveyor placed on a load receptor with one load cell and a separate outlet belt conveyor.
The outlet conveyor may have an integrated system for rejection or sorting out over- and underweight items.

The Combimeki uses a Hauch and Bach WCN 122.1 Weighing transmitter (Evaluation Certificate DK0199-16.02).

2.1.1 Indication

The X-ray unit of the Combimeki is controlled by a Standard industrial PC. A touch monitor connected to this PC serves as the weighing indicator, setup of the weighing unit and as interface to the operator.

2.1.2 Electronics

The X-ray unit is controlled by a standard industrial PC and uses a touch monitor for operator interface.
Communication with the WCN 122.1 weighing indicator is via a RS232 serial communication. The weighing indicator handles all weighing functions and stores all setup and configuration parameters.

The checkweigher/catchweigher is power supplied from one phase 110/230 VAC, 50/60 Hz.

2.1.3 Load cell

Set out in Section 3.3.

2.1.4 Load receptor

Set out in Section 3.2.

2.1.5 Interfaces and peripheral equipment

Set out in Section 4.

2.2 Function

The functions provided are listed below.

2.2.1 Functions and devices

The automatic weighing instrument has the following permitted functions and devices that are subject to the Measuring Instrument Directive:

- Power up test
- Initial zero setting device (≤ 20 % of Max)
- Semi-automatic zero setting device (≤ 4 % of Max and disabled in automatic mode)
- Zero tracking device (≤ 4 % of Max)
- Automatic zero setting device (≤ 4 % of Max)
- Preset tare device
- TAC control
- Detection of significant fault

2.2.2 Software identification

The approved software for the WCN 122.1 indicator is 1.yy, where yy is describing non-legal functions. Version is presented on the form 1yy.

The software version of weighing software of the PC/touch screen is built like this: X.Y.ZZZ.n where
X is the X-ray part,
Y is the legal functions,
ZZZ is non-legal parts and
n is minor changes, also non-legal.

The approved legal part of the software has revision 0.

3. Technical data

3.1 CombiMeki automatic checkweigher/catchweigher

Type:	Combimeki / CombiMidmeki
Weighing mode:	Dynamic
Accuracy class:	XIII(1) / Y(a)
Weighing range:	single-interval
Maximum capacity (Max):	≤ 5000 g
Minimum capacity (Min):	150 × e
Verification scale interval (e =):	≥ 1 g
Number of Verification Scale Intervals (n):	≤ 2500
Belt speed:	≤ 65 m/min
Extra warm-up time	6 minutes
Maximum time between automatic zero setting:	150 minutes
Temperature range:	0 °C to 30 °C
Electromagnetic class:	E2
Humidity:	Non-condensing
Power requirements:	110/230 VAC, 50/60 Hz
Peripheral interface:	Set out in Section 4

3.1.1 WCN122 weight transmitter

Minimum input voltage per VSI:	0.2 µV
Excitation voltage:	5 VDC
Minimum input impedance:	58 Ohm
Maximum input impedance:	1200 Ohm

3.2 Load receptor

The weighing conveyor is a belt conveyor placed on a load receptor equipped with one load cell.

3.3 Load cell

Combimeki uses a HBM PW18C3 H1 load cell

3.4 Documents

The documents filed at DELTA (reference No. T212881) are valid for the weighing instruments described here.

4. Interfaces

The Combimeki has the following communication interfaces.

- Serial interface RS 232C
- Ethernet
- USB

The interface is protective and does not have to be secured.

5. Approval conditions

CombiMeki is approved for fixed installation in indoor locations.

5.1 Compatibility of modules

CombiMeki shall fulfil compatibility of modules (EN45501:2015 annex F) for an input voltage per verification scale interval not less than 1 µV.

6. Special conditions for verification

In stopped mode the Combimeki / CombiMidmeki can operate as a non-automatic weighing instrument and shall be tested as such during verification or marked: “Not to be used for non-automatic weighing”.

7. Securing and location of seals and verification marks

7.1 Securing and sealing

Seals shall bear the verification mark of a notified body according to ANNEX II. Module F of the Directive 2014/32/EU or alternative mark of the manufacturer according to ANNEX II, module D of the Directive 2014/32/EU.

7.1.1 Sealing

The identification plate shall be secured against removal with a brittle sticker.

The load-cell connector shall be sealed with a sticker covering part of the terminal screw area.

7.1.2 Securing

The value of the event counter (TAC) of WCN122, which increment each time legal metrology parameters in it are changed, shall be shown on the identification plate

7.2 Verification marks

A sticker with verification marks is to be placed on or near the identification plate of the instrument.

8. Location of CE mark of conformity and inscriptions

8.1 Identification plate

All inscriptions for the instrument shall be placed on the identification plate, which shall be located visible on the instrument.

8.1.1 CE mark

The CE mark of conformity and the supplementary metrological marking according to Directive 2014/32/EU shall be located on the identification plate.

8.1.2 Markings near the display

The following markings are permanently shown on the display,

- Max, Min and e=

8.1.3 Markings on inscription plate

The identification plate shall at least bear the following inscriptions:

- Manufacturer's trademark and / or name
- The postal address of the manufacturer
- Type designation
- Serial number
- accuracy class
- Max. belt speed
- Temperature range
- Electromagnetic class: E2
- Humidity: Non-condensing
- Supply voltage
- TAC value of WCN122
- Type examination certificate number

9. Pictures

Figure 1 Example of CombiMeki

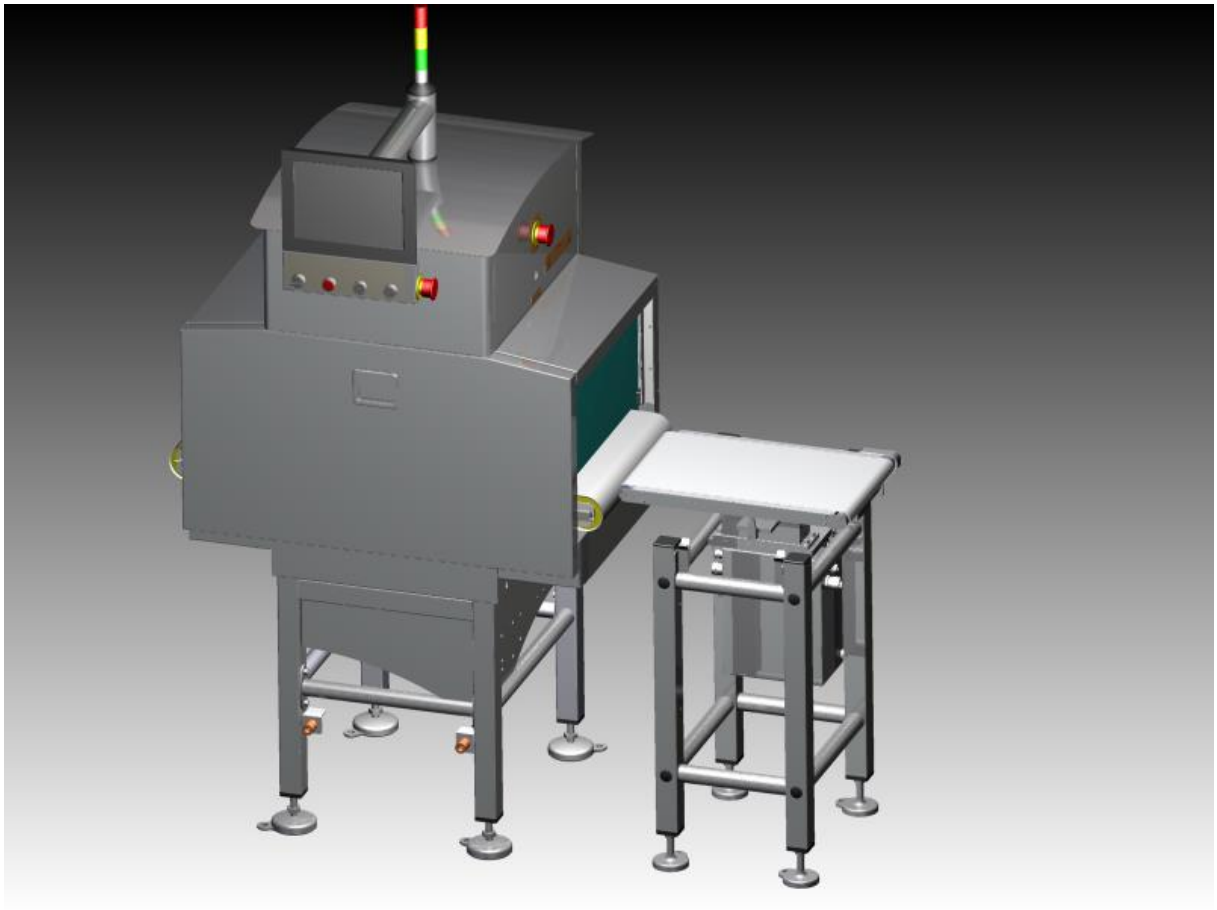

Figure 2 Example of CombiMidmeki