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EC Type Examination Certificate

DK0199.471

MSP 3300

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 2004/22/EC of the European Parliament and Council on Measuring Instruments (MID).

Issued to Marel Støvring A/S
Juelstrupparken 14
9530 Støvring
Denmark

In respect of Automatic checkweigher designated MSP 3300.with variants of modules of load receptor and load cell.
Accuracy class XIII(1)
Maximum capacity: 1000 g.
Verification scale interval: $e = 1$ g.
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 MI-006, chapter I & II of the Directive 2004/22/EC 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

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1. Name and type of instrument and modules

The automatic checkweigher is designated MSP 3300 and is intended for static weighing. It is manufactured by Marel Støvring A/S.

2. Description of the construction and function

2.1 Construction

The MSP 3300 is a traditionally built checkweigher with separate infeed and outlet conveyors. The infeed conveyor consists of two conveyors, a lower feeding, a plate and upper conveyor, which simultaneously feed sliced fish. The outlet conveyor may have an integrated system for rejection or sorting out over- and underweight parcels.

The weighing belt conveyor is mounted on a load receptor with one single point load cell.

The automatic checkweigher is intended for applications where the weighing can be repeated, but it has a small data storage device, which can contain the latest 1000 weighing results.

MSP 3300 is intended to be used together with Marel Støvring's I-Slice 3300 slicer, and it shares I-Slice 3300's operator interface and some of I-Slice 3300's microcomputer resources.

The instrument is software wise of Type P and Risk Class B with extension L, T, and S according to WELMEC Guide 7.2:2011.

2.1.1 Indication

The HMI touch screen placed on the front of I-Slice 3300 is used for all communication between the checkweigher and the operator.

2.1.2 Electronics

MSP 3300 has a dedicated HWS1 weight transmitter module installed in which all setup and configuration parameters are stored. This module communicates on its CAN to the HWS1 module in I-Slice 3300, where a separate software module named MSP scale handles the general weighing functions like pre-set tare, automatic zero-setting, and DSD. The MSP scale software communicates over a closed Ethernet through a PLC to the HMI on which the weighing result is shown in a separate page.

The checkweigher is power supplied from one phase 200 to 240 VAC, 50 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 detailed 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 (max. 20 % of Max)
- Semi-automatic zero setting device (max. 4 % of Max and disabled in automatic mode)
- Zero tracking device (max 4 % of Max)
- Automatic zero setting device (max 4 % of Max)
- Preset tare device
- Extended indicating device (service mode only)
- Detection of significant fault

When the automatic weighing instrument is stopped it can operate as a non-automatic weighing instrument of accuracy class III.

2.2.2 Software identification

The software consists of weighing software and display software. The installed version numbers can be displayed on the HMI.

The approved software versions are,

HWS1 weighing module software:	1.00-xx
MSP scale software:	1.00-xx
PLC software:	1.00-xx
HMI display software:	1.00-xx

3. Technical data

3.1 MSP 3300 Automatic checkweigher

Type:	MSP 3300
Accuracy class:	XIII(1) III in non-automatic mode
Maximum capacity (Max):	1000g
Minimum capacity (Min):	40g
Verification scale interval (e):	e = 1 g
Weighing range:	Single-interval
Number of Verification Scale Intervals (n):	1000
Maximum tare effect:	≤ 100 % of Max
Minimum verification scale interval:	0.4 μV
Temperature range:	-10° to 40° C
Weighing mode:	Static
Maximum time between automatic zero setting:	17 minutes
Electromagnetic class:	E2
Humidity:	Non-condensing
Power requirements:	200 to 240 VAC, 50 Hz
Peripheral interface:	Set out in Section 4

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

MSP 3300 uses a Tedea Huntleigh 1130 C3 15 kg load cell with Y = 15000.

Other certified load cells with the same or better specifications and fulfilling the Compatibility of Modules calculations of OIML R76-1.2006 annex F may be used.

4. Interfaces

The MSP 3300 has no external interfaces.

5. Approval conditions

MSP 3300 is approved for installation in fixed indoor locations.

6. Special conditions for verification

In stopped mode the MSP 3300 can operate as a non-automatic weighing instrument and shall be tested as such during verification.

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 F of the Directive 2004/22/EC or alternative mark of the manufacturer according to ANNEX D of the Directive 2004/22/EC.

7.1.1 Mechanical sealing

The identification plate shall be secured against removal with a brittle plastic sticker or wire and seal.

The cover of the HWS1 weight transmitter shall be sealed against opening in both sides by a brittle sticker covering one of the assembly screws.

Access to the program jumper shall be sealed with a brittle sticker covering the access hole above the jumper.

The load cell connector shall likewise be sealed with a sticker.

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 is to be placed on a visible place on the measuring instrument.

8.1.1 CE mark

A sticker with the CE mark of conformity and the supplementary metrology marking consisting of the capital letter 'M' and the last two digits of the year of its affixing, surrounded by a rectangle, shall be located on the identification plate.

8.1.2 Inscriptions

The identification plate shall bear the following inscriptions:

- Manufacturer's trademark and / or name
- Type designation
- Serial number
- Accuracy class
- Max, Min and e (these shall additionally be duplicated near or on the display)
- Temperature range
- Electromagnetic class: E2
- Humidity: Non-condensing
- Serial number of HWS1 weight transmitter
- Type examination certificate number

9. Pictures

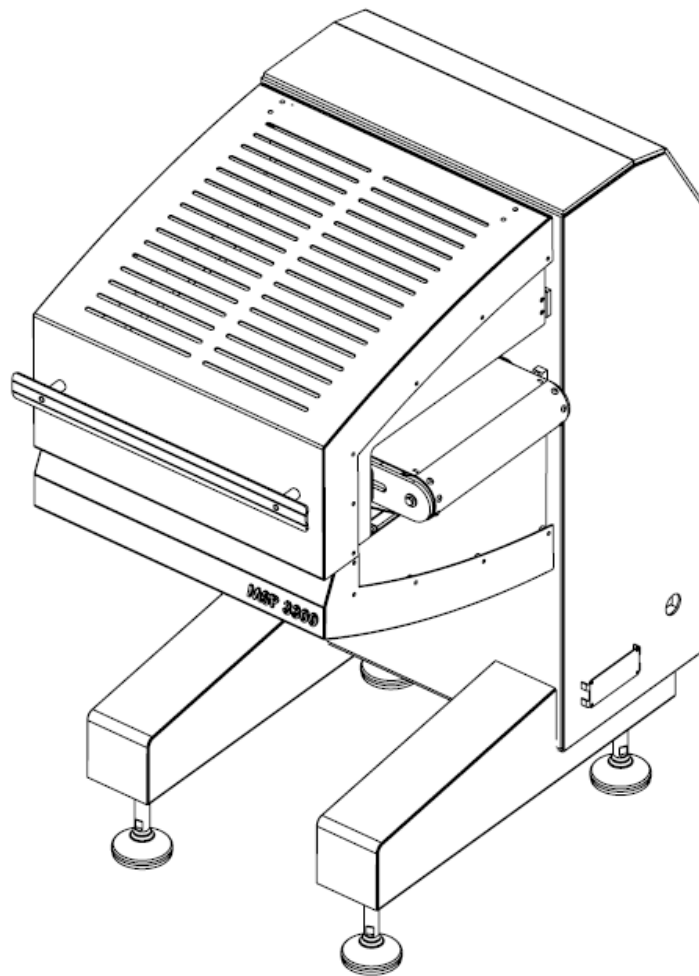


Figure 1 MSP 3300



Figure 2 MSP 3300 with inlet conveyors

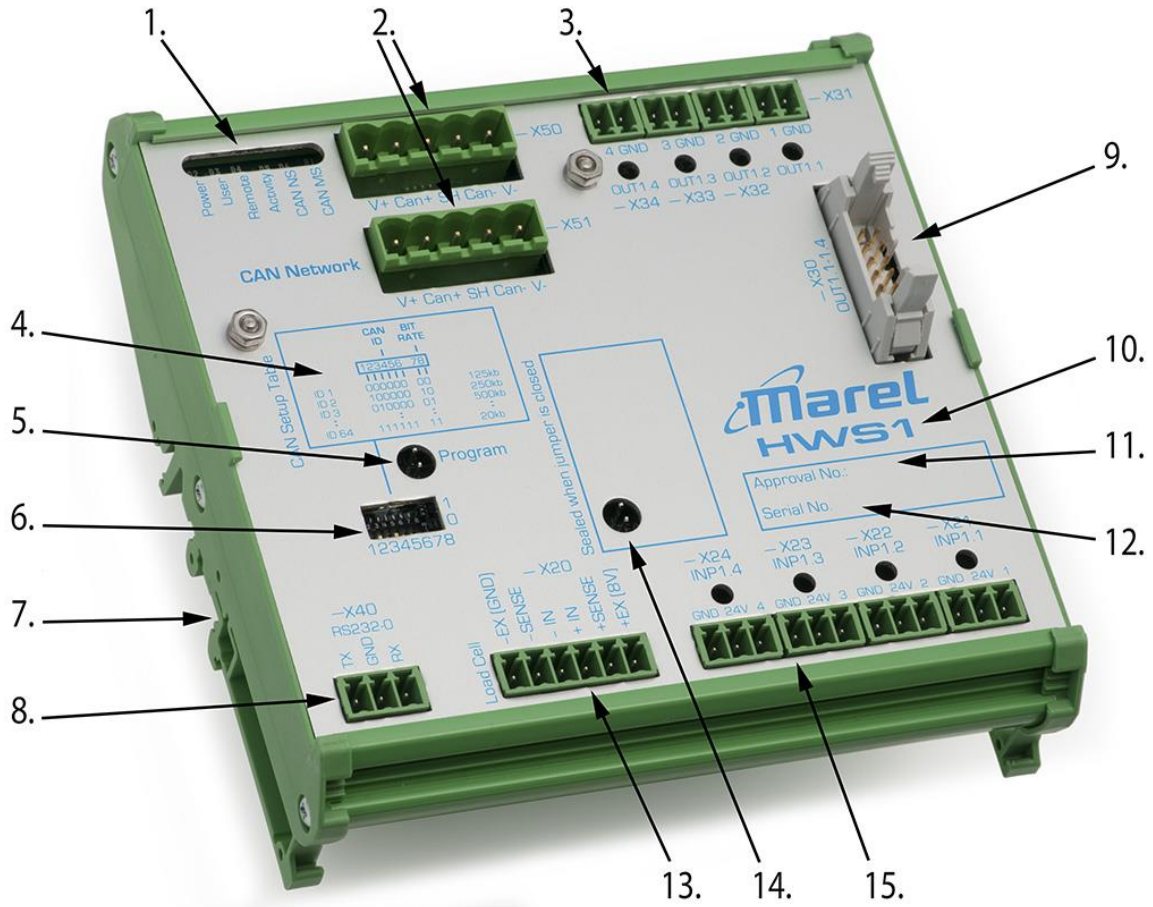


Figure 3 HWS1 weight transmitter, sealing is performed by covering the hole that the arrow 14 is pointed on.