



OIML Member State
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No.
R76/2006-A-GB1-20.12

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority **NMO**
Stanton Avenue
Teddington
TW11 0JZ
United Kingdom

Person responsible: **Mannie Panesar – Head of Technical Services**

Applicant **MARCO Limited**
Enterprise Way
Edenbridge
Kent TN8 6HF
United Kingdom

Manufacturer **The applicant**

Identification of the certified type **CheckMaster, LineMaster V and CheckMaster Ex**
(the detailed characteristics are defined in the Descriptive Annex)

This OIML Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML type evaluation report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 76-1, Edition: 2006

For accuracy classes: III and IIII

Issue date: 09 December 2020

The OIML Issuing Authority

Grégory Glas
Lead Technical Manager
For and on behalf of the Head of Technical Services

This OIML Certificate relates only to metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML Recommendation identified above.

This OIML Certificate does not bestow any form of legal international approval.

The conformity was established by the results of tests and examinations provided in the associated OIML type evaluation report:

No. P02863 dated 09 December 2020 that includes 16 pages

The technical documentation relating to the identified type is contained in documentation file:

No. P02863-D dated 09 December 2020

OIML Certificate History

Revision No.	Date	Description of the modification
0	09 December 2020	Certificate first issued.
-	-	-

No revisions have been issued.

Important note:

Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate is issued, partial quotation of the Certificate and of the associated OIML type evaluation report(s) is not permitted, although either may be reproduced in full.

DESCRIPTIVE ANNEX

Characteristics of the instrument:

The instrument utilises the CheckMaster digital indicating device connected to a weighing platform to form a single-interval, Class III or IIII, non-automatic weighing instrument.

The instrument shall not be used for direct sales to the public.

Construction:

- Stainless steel enclosure
- LCD display (Figure 2)
- Operator keypad with numerical, navigation and function keys
- Lightbar

Devices:

- Initial zero setting device on power up ($\leq 20\%$ Max)
- Semi-automatic zero setting ($\leq 4\%$ Max)
- Zero tracking ($\leq 4\%$ Max)
- Automatic zero setting ($\leq 4\%$ Max)
- Semi-automatic subtractive tare balancing ($T \leq - \text{Max}$)
- Preset tare
- Gross/Net indication
- Zero-indicator
- Indication of stable equilibrium
- Net indicator
- Extended indication ($e/10$)

Load cell:

Any compatible load cell(s) may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) issued for the load cell.
- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules, and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to R76 has been conducted on this load cell.
- The compatibility of the load cells and indicator is established by the manufacturer by means of the compatibility of modules calculation at the time of verification.
- The load cell transmission conforms to a standard type.

Interfaces:

- Load cell
- RS232 x 2
- PIO x 9
- Wi-Fi
- RFID

Technical data:

The instrument has the following rated operating conditions:

Power supply	100-240 VAC, 50/60 Hz 12-24 VDC
Maximum number of scale intervals	10,000 (Class III) 1,000 (Class IIII)
Maximum Tare / Preset Tare value	- Max
Load cell excitation voltage	5 VDC
Minimum load cell impedance	43 Ω
Maximum load cell impedance	1100 Ω
Minimum input voltage per verification scale interval	0.5 μ V
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	20 mV
Fraction of maximum permissible error	$P_i = 0.5$
Operating temperature range	- 10 °C to + 40 °C
Load cell cable (from indicator to load cell junction box) - Maximum length	30 m (6-wire configuration)

Software:

The software is held in firmware on the circuit board, and has the identification number MC8_XXX, with XXX reflecting non-legally relevant changes.

A non-editable counter, designated TAN (traceable access number), increments when legally relevant parameters are changed.

Download of software requires a command that increments the TAN counter.

The software version number and TAN counter are displayed at power-up.

Sealing:

Access to the load cell connection and electronics is prevented by sealing the enclosure using either a wire and seal or a tamper evident label and securing mark. The securing mark may be either:

- a mark of the manufacturer and/or manufacturer's representative, or
- an official mark of a verification officer.

The value of the TAN counter shall be written on a tamper-evident label on or near the rating plate.

Markings:

The markings shall comply with the relevant national regulations.

Alternatives:

The instrument may use an alternative indicator model LineMaster V.

The instrument may use an alternative indicator model CheckMaster Ex.

Having the alternative following manufacturer:

Ian Fellows, A Division of Marco Ltd
3D/E Centurion Way
Crusader Park
Warminster
Wiltshire
BA12 8BT
United Kingdom