NMO

OIML

Member State of OIML
United Kingdom of Great Britain
and Northern Ireland

OIML Certificate No
R76/2006-GB1-17.04

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **NMO**

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

Applicant: **Tecnicas de Electronica y Automatismos, S.A.**
C\Espronceda 176 - 180
E-08018 Barcelona
Spain

Manufacturer: **The applicant**

Identification of the certified pattern: **MATRIX II**

This certificate attests the conformity of the above-mentioned pattern (represented by the samples identified in the associated test report) with the requirements of the following Recommendation of the International Organisation of Legal Metrology (OIML):

OIML R 76 - Edition 2006(E) for **accuracy class**: **[III]** and **[IIII]**

This certificate relates only to the metrological and technical characteristics of the pattern of the instrument concerned, as covered by the relevant OIML International Recommendation.

This certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the certificates reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated test report is not permitted, though they may be reproduced in full.

Issue Date: **03 April 2017**

M. Bokota

M Bokota
Technical Manager
For and on behalf of the Head of Technical Services

UKAS PRODUCT CERTIFICATION
0135

NMO I Stanton Avenue I Teddington I TW11 OJZ I United Kingdom
Tel +44 (0) 20 8943 7272 I Fax +44 (0) 20 8943 7270 I Web www.gov.uk/government/organisations/regulatory-delivery
NMO is part of the Regulatory Delivery directorate within the Department for Business, Energy & Industrial Strategy

The conformity was established by testing and examinations described in the associated Evaluation Report P02072 which includes 14 pages.

Characteristics of the instrument:

This indicating device, designated the MATRIX II, is designed to be used as part of a single or dual range, Class III or IIII, non-automatic weighing instrument. The indicator is self-indicating, and mains-powered or DC-powered.

The instrument is not designed for direct sales to the public.

Main features:

- Stainless Steel enclosure
- LCD display
- Operator keypad with 29 alpha-numerical, navigation and function keys

Devices:

- Initial zero setting device on power up (≤ 20% Max)
- Automatic zero setting (≤ 4% Max, optional)
- Semi-automatic zero setting (≤ 4% Max)
- Zero tracking (optional) (≤ 4% Max)
- Semi-automatic subtractive tare balancing (T = -Max)
- Preset tare
- Gross and Net enunciators
- Gross/Net toggle
- Zero enunciator
- Indication of stable equilibrium
- Data storage
- Printing
- Dual scales

Interfaces:

- Analog Load cell connection
- Digital Load cell connection
- RS232/485
- PS/2
- Ethernet (optional)

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.

Digital load cell: The interface for digital load cells is compatible with any–digital load cell compatible with Utilcell model 740D with a respective OIML Certificate of Conformity (R60).

Technical data:

Power supply (AC)	100-240 VAC, 50-60 Hz
Power supply (DC)	10-24 VDC
Maximum number of scale intervals	6,000 (Class III) 1,000 (Class IIII)
Operating temperature range	- 10 °C to + 40 °C
Maximum Tare value	- Max
Load cell excitation voltage	6 VDC
Minimum load cell impedance	43 Ω
Maximum load cell impedance	1100 Ω
Minimum input voltage per verification scale interval	0.6 μV
Measuring range minimum voltage	-25 mV
Measuring range maximum voltage	+25 mV
Fraction of maximum permissible error	Analog load cell: $P_i = 0.5$ Digital load cell: $P_i = 0.0$
Load cell cable (from indicator to load cell junction box) - Maximum length	4-wire configuration: load cell cable shall be connected directly to indicator without junction box 6-wire configuration: 400 m/mm^2

Software:

The software is held in firmware on the circuit board, and has the identification number "1.xxxx", with xxxx (between 0000 and 9999) reflecting non-legally relevant changes. The software version number is displayed via configuration menu: setup – F4 to access INDICATOR – F4 CONFIG – F2 to access SW.VERSION.

Access to the legally relevant parameters and download of software is prevented by two switches (one independent switch for each scale interface) at the back of the enclosure.

Non-editable counters register any changes to the legally relevant parameter and software.

Sealing:

Access to the switches described in the Software section is prevented by sealing a cover over the switches via a tamper-evident label or wire-and-seal. Access to the electronics is prevented when the switches are sealed.

The load cell connections are sealed using a tamper-evident label.

CERTIFICATE HISTORY

ISSUE NO.	**DATE**	**DESCRIPTION**
R76/2006-GB1-17.04	3 April 2017	Certificate first issued.
-	-	No revisions have been issued.