



OIML Member State
Denmark

OIML Certificate No.
R76/2006-A-DK2-2020.18

OIML CERTIFICATE ISSUED UNDER SCHEME A

OIML Issuing Authority

Name: **FORCE Certification A/S**
Address: Park Allé 345, 2605 Brøndby, Denmark
Person responsible: Leif Madsen

Applicant

Name: **Automatizacion Y Peso S.A.S**
Address: Cra. 43 A # 61SUR 152 BOD 131
Sabaneta, Antioquia
Colombia

Manufacturer Cardinal Scale Manufacturing Company

Identification of the certified type (*the detailed characteristics will be defined in the additional pages*)

CT series

Designation of the module (*if applicable*)

Non-automatic electronic weighing instrument

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 (year): 2006

For accuracy class (if applicable): **III or IIII**

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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 reports:

For complete instrument:

Type evaluation report: No. 120-34895.90.10 dated 16 November 2020, that includes 23 pages

For indicator:

225D: Type examination report: 118-31505.10, dated 30 Oct. 2018, that includes 24 pages

SmartCAN: Type examination report: 119-35654.10, dated 06 May 2020, that includes 65 pages

For load cell:

SCBD50: Test report Avery Weigh-Tronix 03899, dated 27 June 2017, that includes 24 pages

Test report NMO SN1402, dated 14 Nov. 2017, that includes 14 pages

DC: Test report Avery Weigh-Tronix 03945, dated 17 Oct. 2017, that includes 24 pages

Test report NMO SN1407, dated 02 Nov. 2017, that includes 12 pages

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

120-34859.90.10

OIML Certificate History

Revision No.	Date	Description of the modification
Initial version	27 November 2020	-

Identification, signature and stamp

The OIML Issuing Authority

FORCE Certification A/S

Date: 27 November 2020

Jens Hovgård Jensen

Certification Manager

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

Type:	CT series
Accuracy class:	III and IIII
Weighing range:	Single-interval
Maximum number of Verification	
Scale Intervals (n_i):	≤ 10000 (class III), ≤ 1000 (class IIII)
Maximum capacity:	10 t to 120 t
Mains power supply:	100 to 240 VAC (50/60 Hz) or 12-24 VDC
Operational temperature:	-10 °C to +40 °C

The instrument is combined by different modules:

Either:

The 225D digital indicator and the digital load cells SCBD50 or DC

Or:

The 225D digital indicator with SmartCAN non-automatic weighing transmitter connector to analog load cells.

For these models shall the compatibility of the modules be established by the manufacturer by means of the compatibility of modules calculation according to OIML R76:2006, Annex F.

Software

The software revision for the **225D** is displayed during the power up sequence of the instrument as:

LCD Rev x.v mm/dd/yy and

DLC Rev x.u.w mm/dd/yyyy (only visible in model for digital load cell)

Revision x.y.z mm/dd/yy

Where x designates the legal revision numbers, v, u, w, y and z revision number are not subject to legal control, and mm/dd/yy the date of the revision.

The released revisions are: LCD Rev 1.vv , DLC rev.1.z.v and Revision 2.z.v.

The software version of the **SmartCAN** is displayed during the power up sequence of the digital terminal to which it is connected.

The software version is built in the form of x.y.z where x designates the legal revision number and y and z is not under legal control.

The released version is 1.y.z

Characteristics for the SmartCAN weighing transmitter

Accuracy class:	III and IIII
Weighing range:	Single-interval
Maximum number of Verification	
Scale Intervals (n_i):	≤ 6000 (class III), ≤ 1000 (class IIII)
Fractional factor:	$p_i = 0.5$
Minimum input voltage per VSI:	$0.5 \mu\text{V}$
Excitation voltage:	10 VDC nominal
Number of load cell input channels:	4 or 10
Analogue range:	1 to 30 mV
Circuit for remote sense:	active
Minimum input impedance:	350 ohm
Maximum input impedance:	1100 ohm
Mains power supply:	100 to 240 VAC (50/60 Hz) or 12-24 VDC
Operational temperature:	-10°C to $+40^\circ\text{C}$

Characteristics for the DC Series digital load cells

Classification	C4
Additional marking	CH
Maximum number of load cell verification intervals	$(n_{LC}) 4000$
Maximum capacity (E_{max})	22.68 – 113.40 t
Minimum dead load, relative	0
Relative v_{min} ($Y = E_{max}/V_{min}$)	12000 – 17000
Relative DR ($Z = E_{max}/(2 \cdot DR)$)	4000
Excitation voltage	12-24 VDC
Temperature rating	-10 to $+40^\circ\text{C}$
Safe overload, relative (E_{lim}/E_{max})	200 %
Apportionment factor	0.8

Characteristics for the SCBD50 digital load cells

Classification		C4
Additional marking		CH
Maximum number of load cell verification intervals	(n_{LC})	4000
Maximum capacity	(E_{max})	22.68 – 113.40 t
Minimum dead load, relative		0
Relative v_{min}	$(Y=E_{max}/V_{min})$	33600
Relative DR	$(Z=E_{max}/(2*DR))$	4000
Excitation voltage		12 VDC
Temperature rating		-10 to +40 °C
Safe overload, relative	(E_{lim}/E_{max})	150 %
Apportionment factor		0.8

