NMO	OIML Certification System
OIML Member State United Kingdom of Great Britain and Northern Ireland	**OIML Certificate No.** **R76/2006-A-GB1-20.07**

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	**Avery Weigh-Tronix** **Foundry Lane** **Smethwick** **West Midlands B66 2LP** **United Kingdom**
Manufacturer	**The applicant**
Designation of the module	**ZM301, ZM303, ZM305, ZQ375 Series** *(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, Edition: 2006

For accuracy class: III and IIII

Issue date: 29 June 2020

The OIML Issuing Authority

G Stones
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. P02739 dated 29 June 2020 that includes 20 pages

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

No. P02739-D dated 29 June 2020

OIML Certificate History

Revision No.	Date	Description of the modification
0	29 June 2020	OIML 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:

The family of indicating devices are designated the Avery Weigh-Tronix ZM301 / ZM303 / ZM305 / ZQ375 Series. The indicators are self-indicating, mains, DC or battery-powered, and are designed to be used as part of a Class III or IIII, Non-automatic Weighing Instrument.

Construction:

The indicator construction is dependent on the model number, the designation follows the following format: “Prefix-XYZ”, with

- Model Number Prefix:
  ZM301, ZM303 or ZM305 = Standard Indicator
  ZQ375 = Check-weighing Indicator

- First Digit X – Enclosure material
  S = Stainless enclosure
  A=Alloy Enclosure

- Second Digit Y – Mounting orientation
  D = Desktop
  G = Desktop, with GTN Inbound – Outbound software & keypad variant
  P = Panel Mount

- Third Digit Z – Display Type
  1 = IBN – Black background with Green Digits
  2 = TN – Green Background with Black Digits

The ZM301 features 6 operational keys, whereas the ZM303 and ZM305 overlays are fitted with 24 operational keys, including a numeric keypad. The ZM305-SG1 overlay includes keys for Inbound / Outbound weighing operation, while the ZQ375 is specifically designed for Check Weighing applications, and is fitted with 10 operational keys.

Devices:

- Semi-automatic zero setting (≤ 4% Max)
- Zero tracking (≤ 4% Max)
- Semi-automatic subtractive tare weighing
- Pre-set tare
- Recall of Gross indication when tare is active
- Determination of stability of equilibrium
- Indication of stability of equilibrium
- Checking of display
- Printing
- PLUs
- Alibi storage device
- Gravity compensation
- Checkweighing
- Real time clock
- Counting
- Weigh labelling
- Command via external device (PC)
- Accumulation
- Target Weighing

- Batching
- Peak Hold
- Simple checkweighing (Sim375), ZQ375 models only
- Mid-level checkweighing (Mid375), ZQ375 models only
- Advanced checkweighing (Adv375), ZQ375 models only
- Percentage checkweighing (Per375), ZQ375 models only
- Grading checkweighing (Grad375), ZQ375 models only
- GTN Inbound – Outbound, ZM305-SG1 model only (with V2.x.x.x software)
- Gross, Net, Tare, Preset tare, Print, Zero, Motion, Accumulation, Over/Under weight and Network indicators

Technical data:

– Power supply	- ZM301-ADz*, ZM303-ADz*, ZM301-SPz*, ZM303-SPz: 12-36V DC via mains adaptor or external battery pack. - ZM301-SDz*, ZM303-SDz*, ZM305-SD1, ZM305-SG1, ZQ375-SD1: 110-240V AC (50/60Hz) * where z = display type	
	ZM301, ZM303, ZQ375	ZM305
Maximum number of scale intervals	6 000	10 000
Maximum Tare	-100% Max	
Maximum Preset Tare	-100% Max	
Load cell excitation voltage	5 V DC	10 V DC
Minimum load cell impedance	58.33 Ω	21.87 Ω
Maximum load cell impedance	1 100 Ω	
Minimum input voltage per scale interval	0.8 µV	0.5 µV
Measuring range minimum voltage	0 mV	
Measuring range maximum voltage	15 mV	
Fraction of maximum permissible error	P_{ind} = 0.5	
Operating temperature range	-10 °C to +40 °C	
– Load cell connection	4 or 6-core with braided outer screen, flexible PVC overall Jacket.	
	Maximum length (6-wire) = 196 m/mm^2 (limited to 30 m)	Maximum length (6-wire) = 196 m/mm^2 (limited to 30 m)

Interfaces:

- Load cell 4-wire or 6-wire shielded connection
- 3 x logic level inputs
- 3 x open collector outputs
- 2 x RS232 serial ports
- 10/100 Ethernet
- USB Host

Optional Interface & PCBs:

- Analogue output card, providing 0-10 V DC and 4-20 mA outputs
- Current loop card, providing 4-20 mA loop and RS485 / RS422
- Internal Wireless LAN card, providing an 802.11 b/g wireless link
- USB Device card, providing USB interface to PC

Optional Modules (ZQ375 only):

- ZQ-BAT Battery pack
- ZQ-OPTO Interface box (with or without beacon assembly)

Software:

The software is designated AWT30-500161 version 1.x.x.x or 2.x.x.x* (where x.x.x refers to the identification of non-legally relevant software, which may be modified by the manufacturer).

** Version 1.x.x.x software may not be fitted to the ZM305 series for which version 2.x.x.x or higher is required.*

The calibration and legally relevant parameters are protected via physical (jumper located on main board) or software means (password and incrementing counters).