

OIML Member State United Kingdom of Great Britain and Northern Ireland	OIML Certificate No. R76/2006-A-GB1-19.02
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
Identification of the certified type	ZK840 <i>(the detailed characteristics are defined in the Descriptive Annex)</i>
<p>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):</p> <p>OIML R 76, Edition: 2006</p> <p>For accuracy class: III</p>	
<p>Issue date: 12 June 2019</p> <p>The OIML Issuing Authority</p>  <p>Grégory Glas Lead Technical Manager <i>For and on behalf of the Head of Technical Services</i></p>	

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. P02554A dated 12 June 2019 that includes 18 pages

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

No. P02554A-D dated 12 June 2019

OIML Certificate History

Revision No.	Date	Description of the modification
0	12 June 2019	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 indicating device is designated the Avery Weigh-Tronix ZK840. The indicator is self-indicating, mains, DC or battery-powered, and is designed to be used as part of a Class III, Non-automatic Weighing Instrument. The load receptor(s) may be BSQ digital bases and / or conventional platforms fitted with load cells.

Construction:

The indicator consists of a plastic (ABS) enclosure that may either be mounted to a BSQ base or alternatively desk / wall mounted using an optional bracket.

An ISTN LCD display is provided, capable of displaying both positive (black background with green digits) and negative (green background with black digits) images.

The ZK840 indicator features 6 operational keys, with additional “soft” keys provided via the touchscreen display.

Devices:

The indicator has the following devices:

- Single or multi-range (maximum of 3 partial ranges)
- Semi-automatic zero setting ($\leq 4\%$ Max)
- Zero tracking ($\leq 4\%$ 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
- Gravity compensation
- Real time clock
- Command via external device (PC)
- Counting
- Accumulation
- Checkweighing
- Target Weighing
- Percentage weighing
- Grading
- Pick Lists
- Kitting
- Density Formulation
- % Recipe
- Gross, Net, Tare, Preset Tare, Print, Zero, Motion, Over/Under weight, %PCWT, and Battery indicators.
- Connection to additional load receptors, with identification of active load receptor(s)
- PLUs
- Piece Weight selection
- Extended indicating

Technical data:

Power supply	110-240 VAC (via PSU), or 12-36 VDC, or external battery pack	
Load Cell Input Variants	BSQ Digital Base	5V EXC analogue load cell interface option card
Maximum number of scale intervals	10,000	6,000
Maximum Tare	-100% Max	
Maximum Preset Tare	-100% Max (single interval) - Max ₁ (multi-interval/range)	
Load cell excitation voltage	n/a	5 VDC
Minimum load cell impedance	n/a	58.33 Ω
Maximum load cell impedance	n/a	1,100 Ω
Minimum input voltage per scale interval	n/a	0.8 μV
Measuring range minimum voltage	n/a	0 mV
Measuring range maximum voltage	n/a	15 mV
Fraction of maximum permissible error	n/a	P _{ind} = 0.5
Operating temperature range	+5 °C to +40 °C	
Load cell connection	BSQ Digital Base interface	4 or 6-core with braided outer screen, flexible PVC overall Jacket
	n/a	Maximum length (6-wire) = 196 m/mm ² (limited to 30 m)

Load cell:

When fitted with the 5V EXC analogue load cell interface option card, 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:

- BSQ digital base interface
- 3 x logic level inputs
- 3 x open collector outputs
- 2 x RS232 serial ports
- 10/100 Ethernet
- USB Device
- USB Host

Optional Interface & PCBs:

- (i) Internal Wireless LAN card, providing an 802.11b/g wireless link
- (ii) Up to two load cell interface boards, with 5V Excitation (to allow the connection of 1 or 2 platforms, maximum 6 load cells).

Software:

The software is designated AWT30-500208 version 2.x.x.x (where x.x.x refers to the identification of non-legally relevant software, which may be modified by the manufacturer).

The verification information may be displayed by:
holding **SETUP** > Enter "111" > **ENTER** > Select **ABOUT**

Sealing:

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

Access to the electronics, jumper, and load cell connections are prevented via tamper evident seals or by the use of wire seals.

Alternatives:

Alternative 1:

The indicator may be connected to Avery Weigh-Tronix ZB210 digital junction boxes to form a Class III or IIII, self-indicating, Non-automatic Weighing Instrument.

The ZB210 technical data is as below:

Power supply	12 – 36 VDC Supplied by digital indicating device via RS485 interface cable
Maximum number of scale intervals	6,000 (Class III), single or multi-interval 1,000 (Class IIII), single or multi-interval
Load cell excitation voltage	5 VDC
Minimum load cell impedance	350 Ω (per channel)
Maximum load cell impedance	1100 Ω (per channel)
Minimum input voltage per verification scale interval	0.8 μV
Measuring range minimum voltage	0 mV
Measuring range maximum voltage	25 mV
Fraction of maximum permissible error	P _i = 0.5
Operating temperature range	- 10 °C to + 40 °C
Load cell cable (from junction box to load cells) - Maximum length	15 m (4-wire, 350Ω load cell connection) 30 m (4-wire, 700Ω load cell connection) 42 m (4-wire, 1000Ω load cell connection) 47 m (4-wire, 1100Ω load cell connection) Note: All load cell cables to an individual ZB210 must be of equal length.

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.

The ZB210 software has the identification as follows:

AWT30-500235, Version 1.x.x.x
(with x.x.x reflecting non-legally relevant changes)

The software version number is displayed on the attached digital indicating device for verification purposes.