National Measurement & Regulation Office

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

OIML Certificate No
R76/2006-GB1-15.04
Revision 1

OIML CERTIFICATE OF CONFORMITY

Issuing authority: **National Measurement and Regulation Office**

Person responsible: **Paul Dixon – Director, Technical Services**

Applicant: **Avery Weigh-Tronix**
Foundry Lane
Smethwick
West Midlands B66 2LP
United Kingdom

Manufacturer: **The applicant**

Identification of the certified pattern: **ZP900 Series**

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]

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.

This revision replaces previous versions of the certificate.

Issue Date: **19 February 2016**
Reference No: **TS1201/0124**

P R Dixon
Technical Services Director

UKAS PRODUCT CERTIFICATION
0135

National Measurement and Regulation Office 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/nmro
The NMRO is an Executive Agency of the Department for Business Innovation and Skills

The conformity was established by testing and examination described in the associated Evaluation Report P01514 which includes 14 pages.

Characteristics of the instrument:

This family of non-automatic weighing Instruments, which may also be used as postal scales, utilises the digital bases designated the Avery Weigh-Tronix BSQ Series, connected to an indicator and optional remote displays to form Class III, mains, DC or battery-powered, self-indicating non-automatic weighing instruments.

The instruments may be used for direct sales to the public.

Digital bases:

Two-part cast aluminium painted enclosure
Load bridge
Stainless steel or aluminium weighing pan
Digital Load cell assembly type LP FPGA QDT
Adjustable feet
Level indicator

The designation of the base follows the following format: “Prefix-XXYY-CCC”, with

- Model Number Prefix:
  BSQ = Standard Base

- Digits XX – Nominal weigh pan depth in inches
  Digits YY – Nominal weigh pan width in inches

- Digits CCC – Capacity in kg

Indicator and remote display:

The digital base shall be connected to a ZP900 series indicator, and optionally a ZP900 series remote display to form a complete ZP900 instrument, the designation of which follows the following format: “ZP900-XXYY-CCC-XYZ”, with

- Digits XX – Nominal weigh pan depth in inches
- Digits YY – Nominal weigh pan width in inches

- Digits CCC – Maximum capacity of platform in kg

- Digit X – Indicator / Remote Display Enclosure material
  P = Plastic (ABS) Enclosure

- Digit Y – Indicator / Remote Display Mounting method

  B = Base Mount (integral to the scale)
  D = Desk Mount Indicator
  H = Hybrid (Indicator and remote display coupled together on a pole)
  P = Pole Mount Indicator
  R = Remote display – pole mount
  T = Table Top Remote display

- Digit Z – Indicator / Remote Display Type
  1 = IBN – Black background with green digit

The indicator comprises a PCB, LCD display and 6 operational keys, housed in an enclosure. The remote display is of identical construction, but without the operational keys. Power to the indicator and remote display is sourced from the digital base.

Devices:

The instruments have the following devices:

- Initial Zero setting (≤ 4% Max)
- Semi-automatic zero setting (≤ 4% Max)
- Zero tracking (≤ 4% Max)
- Single or multi-range (maximum of 3 partial ranges)
- Determination of stability of equilibrium
- Indication of stability of equilibrium
- Checking of display
- Gross, Zero, Motion, Ethernet, Battery indicators
- Range in use indicators (multi-range variant)

Technical data:

Type	BSQ-0912-035	BSQ-1014-035	BSQ-1214-035	BSQ-1214-080
Max	5 kg ≤ Maximum capacity ≤ 35 kg			5 kg ≤ Maximum capacity ≤ 80 kg
e =	≥ 1 g			≥ 2 g
Min	20 e (5 e for determination of postal tariffs)			
Maximum number of scale intervals	n ≤ 10,000 for instruments with single interval n_i ≤ 10,000 for instruments with multi-range operation, per weighing range, with a maximum of three weighing ranges			
Maximum Tare	-100% Max			
Power supply	110-240 VAC (via PSU), or 12-36 VDC, or 5 V DC (via USB)			
Temperature range	-10 to +40 °C			
Load cell E_{max}	38kg			110kg

Interfaces:

The instruments may be fitted with the following protected interfaces:

BSQ Digital base:

- USB Virtual Serial
- RS232

Indicator:

- Ethernet
- USB Device
- RS232

Remote display:

- RS232

The instruments may be connected to any compatible Electronic Point of Sale device (EPOS).

The weighing system may be connected to CE-marked PC terminals used for determining postal tariffs. The Min value in this case may be shown as 5 e and the display overlays will include the legend “Minimum Load For Postal Use 5 e” or similar wording.

Software:

The software for the digital base is designated AWT30-500191 Version 1.x.x.x (where x.x.x refers to the identification of non-legally relevant software, which may be modified by the manufacturer).

The software for the indicator is designated AWT30-500196 Version 1.x.x.x, (where x.x.x refers to the identification of non-legally relevant software, which may be modified by the manufacturer).

Sealing measures:

A jumper located on the ZP900 indicator main board prevents all access to the legally relevant parameters.

Alternatively, software sealing may be used: two non-editable counters, designated CALIB and CONFIG, are incremented each time the calibration and legally relevant parameters respectively are modified, with access to these parameters being password-protected. The counters’ values and designations must be written on a tamper-evident label on or near the rating plate.

Hardware sealing: access to the load cell and electronics is prevented by a destructible paper seal placed across the joint between the upper and lower casting, bearing a securing mark. If hardware sealing is used for the indicator, its housing and the interconnecting cable between the BSQ base and the indicator must additionally be sealed.

Alternatives:

Having a reduced temperature range of +5°C to +40°C, with the instrument bearing the following legend, grouped with the other markings: Temperature range: + 5°C / 40°C.

Having the instrument built into a self-service postal system. The location of the display (integral or remote) may vary, provided that the primary indications are clearly and simultaneously visible to the user/customer.

CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
R76/2006-GB1-15.04	20 July 2015	Certificate first issued.
R76/2006-GB1-15.04 Rev 1	19 February 2016	5 VDC (via USB) and BSQ-1014-035 added to Technical data. Changed “Stainless steel weighing pan” in Characteristics of the instrument to “Stainless steel or aluminium weighing pan”.