Ministry of Business, Innovation & Employment

Wellington, New Zealand

# CERTIFICATE OF APPROVAL

## Weights and Measures Regulations 1999
## Part 1 Regulations 5 and 6

Current Date of Issue: 02 September 2013
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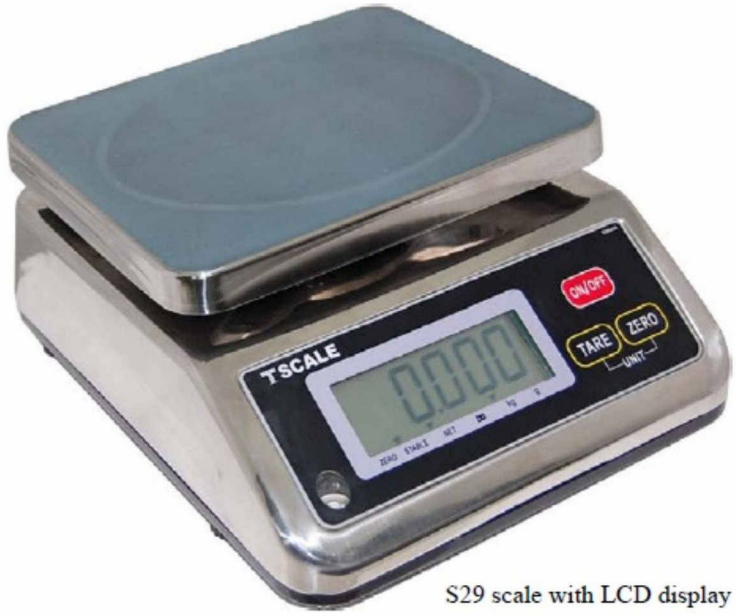
## Certificate 2120

**Overseas Certificate No: OIML R76/1992-DK3-11.07**

This certifies that the Taiwan Scale or TScale S29 & SW Series, Weighing Instrument described overleaf has been approved as suitable for trade use subject to any conditions stated in the schedule:

Figure 1 - TScale Model S29 Series




S29 scale with LCD display

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Under delegated authority from the Chief Executive of The Ministry of Business, Innovation & Employment

*Note: This is not an approval to any person but only with respect to the type and pattern of weight, measure, or weighing or measuring instrument.*

## SCHEDULE

| | |
|---|---|
| **Pattern:** | Weighing Instrument |
| **Make:** | Taiwan Scale or TScale |
| **Model:** | S29 & SW Series |
| **Manufacturer:** | TScale Electronics Mfg. (Kunshan) Co., Ltd - China |
| **Submitter:** | Maximus Scales Limited. |
| **Maximum Capacity (Max):** | 3 kg ≤ Max ≤ 30 kg (see Table 1) |
| **Minimum Capacity:** | 20e |
| **Verification Scale Interval:** | ≥1g (n≤3000, per partial weighing range; Max of two partial weighing ranges). See table 1 |
| **Class:** | III |
| **Load Receptors:** | 1) S29 Series: 230 x 190 mm<br>2) SW Series: 200 x 260 mm |
| **Tare:** | ≤ - Max, (semi-automatic subtractive tare) |
| **Conditions of Approval:** | 1. Instruments are marked 'NOT FOR TRADING DIRECT WITH THE PUBLIC' (or similar wording) unless the single display is located such that all primary indications and the weighing platform are clearly and simultaneously visible to both the vendor and the customer.<br>2. Adjacent to level indicator a level notice stating "incorrect if not truly level" or a similar wording must be shown.<br>3. This Certificate only covers compliance with respects to the relevant sections of the Weights and Measures Act and Regulations and should not be construed as guarantee of compliance with any safety requirements.<br>4. Trading Standards reserves the right to examine any instrument or component of an instrument purporting to comply with this approval. |

**Description:**

A Taiwan Scale (T-Scale) Model S29 & SW (*) Series are Class III non-automatic, self-indicating, single or multi-interval, weighing Instruments. The instruments are configured with certain capacities as listed in Table 1.

(*) the model number may have a suffix of alpha-numeric characters reflecting the maximum capacity of the instrument.

E.g. Model S29-6K-MR is a multi-interval instrument with a maximum capacity of 3 kg / 6 kg and a verification scale interval of 1 g / 2 g.

CONSTRUCTION:

Base work:
Model S29 Series: The pattern is built in a stainless steel enclosure and has a rectangular type stainless steel load receptor. See figure 1 and 2.

Model SW Series: The pattern is built in an ABS plastic enclosure and has a rectangular type stainless steel load receptor. See figure 3.
There are two versions of SW Series:
(i) SW is a waterproof version, and
(ii) SW-II is a non-waterproof version.

Display:
The instruments are provided with an integrated (within the instrument housing) LCD/LED type front display

and an optional rear display for customers.

Load Cell:
The instrument uses a single ZEMIC type L6D C3 load cell with an Emax capacity as detailed in Table 1.

Power Supply:
Operates on a 230V AC via a compatible mains adaptor to supply 9~12 VDC to the instrument.
The instrument may also operate on an optional internal 6V rechargeable battery or from dry battery cells.

Display Check:
A display check to ensure that all segments are active is initiated whenever power is switched on.

Software version:
The software version is displayed during the power-up sequence of the instrument. The approved software version is 1.00.

Interfaces:
The instruments have NO interfaces.

ZERO SETTING DEVICES:

Initial Zero Setting Device: ± 10% of the maximum capacity of the instrument.

Semi-Automatic Zero Setting: ± 2% of the maximum capacity of the instrument.

Zero-tracking: A Zero-tracking device may be fitted and operates over a range of ± 2% of the maximum capacity of the instrument.

METROLOGICAL MARKINGS:

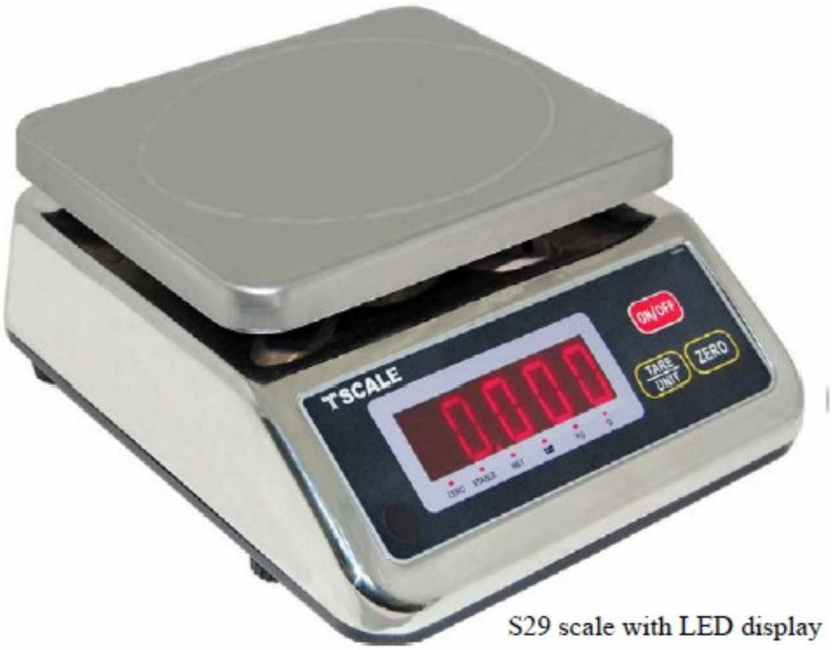
Instruments carry the following markings:
Manufacturer's mark, or name:
Accuracy class:
Pattern approval number:
Maximum capacity Max .....g or kg #
Minimum capacity Min ..... g or kg #
Verification scale interval e = .....g or kg #
Serial number of the instrument ……..
# These markings are also shown near the display of the result.

| | |
|---|---|
| **Components:** | ZEMIC Type L6D loadcell |
| **Sealing:** | A calibration switch is located at the bottom of the instrument housing (inside the battery box). An approved type adhesive destructible label or lead type seal shall secure the metrological functions from unauthorised entry as shown in figure 4 and 5. |
| **Mark of Verification:** | An approved adhesive destructible label or lead type seal used to inhibit access to calibration switch of the instrument shall carry a Mark of Verification. Removal of seal deems the instrument not verified. |
| **Levelling:** | The Instrument is equipped with adjustable feet and a level bubble. Adjacent to the level bubble is a notice "Instrument incorrect unless level" or similar wording. |
| **Temperature:** | -10˚ C to 40˚ C |

TABLE 1 - Configuration Details

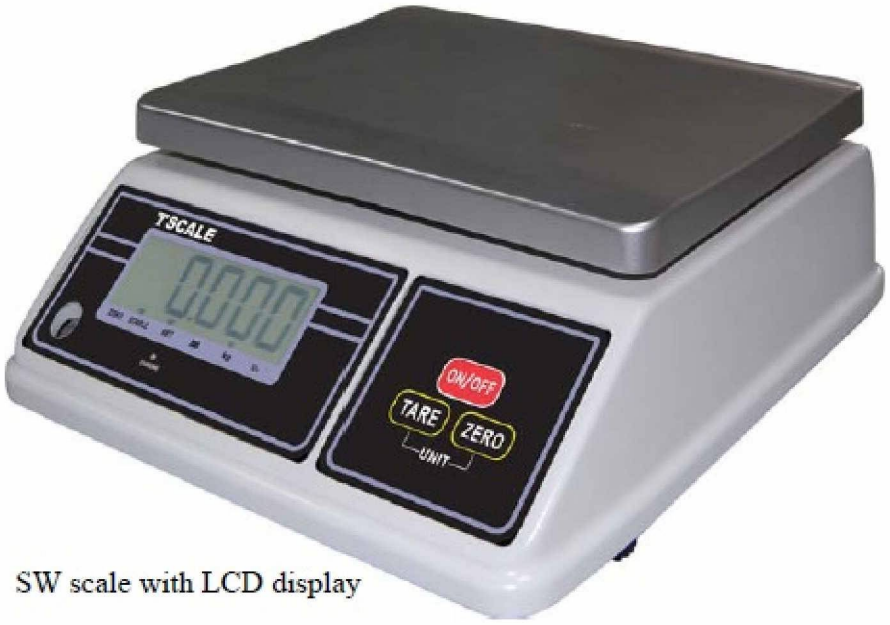
| Max | e | N | No of Load cells | Load cell type | $E_{max}$ |
|---|---|---|---|---|---|
| 3 kg | 1 g | 3000 | 1 | L6D | 5 kg |
| 6 kg | 2 g | 3000 | | | 8 kg or 10 kg |
| 15 kg | 5 g | 3000 | | | 20 kg |
| 25 kg | 10 g | 2500 | | | 35 kg or 50 kg |
| 30 kg | 10 g | 3000 | | | 35 kg or 50 kg |
| 3/6 kg | 1/2 g | 3000/3000 | | | 8 kg or 10 kg |
| 6/15 kg | 2/5 g | 3000/3000 | | | 20 kg |
| 15/25 kg | 5/10 g | 3000/2500 | | | 35 kg or 50 kg |
| 15/30 kg | 5/10 g | 3000/3000 | | | 35 kg or 50 kg |

Figure 2 - TScale Model S29 Series



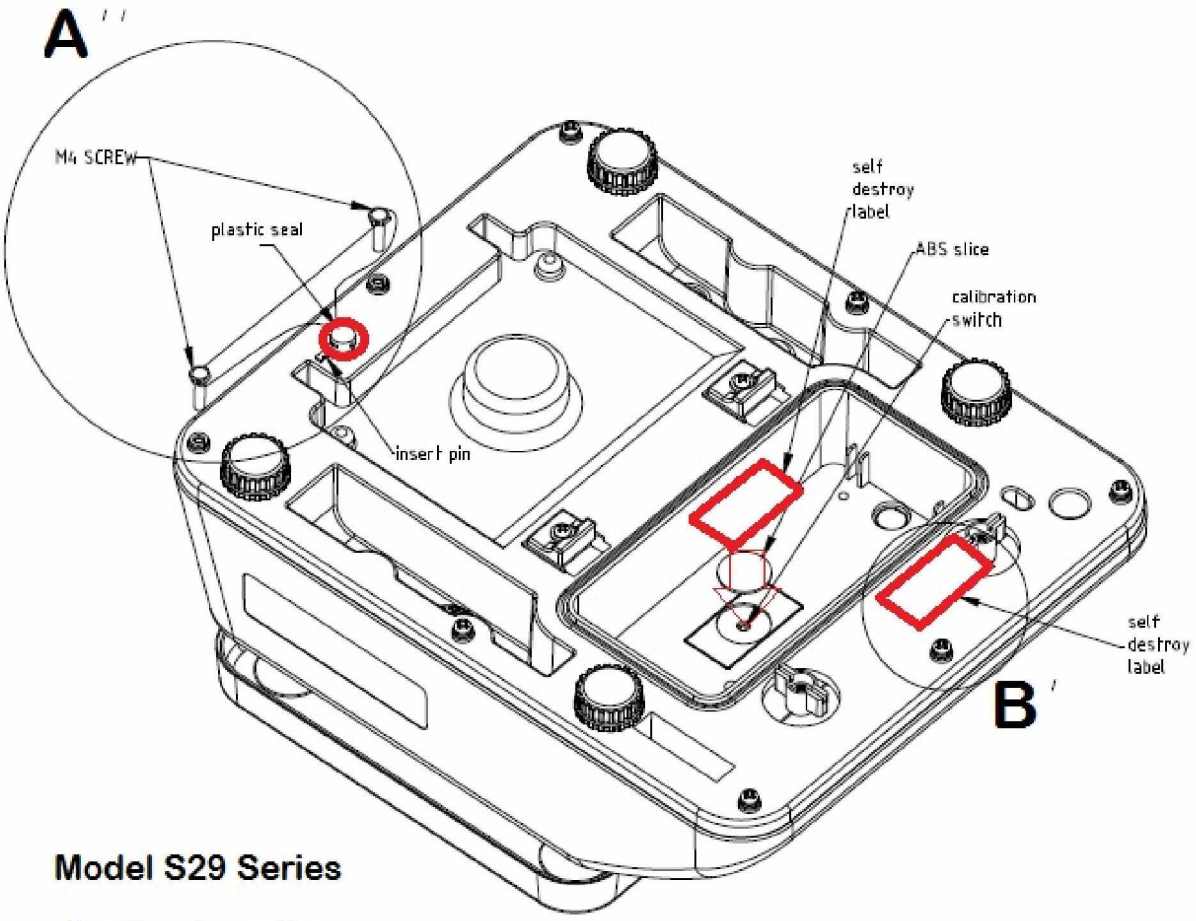

S29 scale with LED display

Figure 3 - TScale Model SW Series




SW scale with LCD display

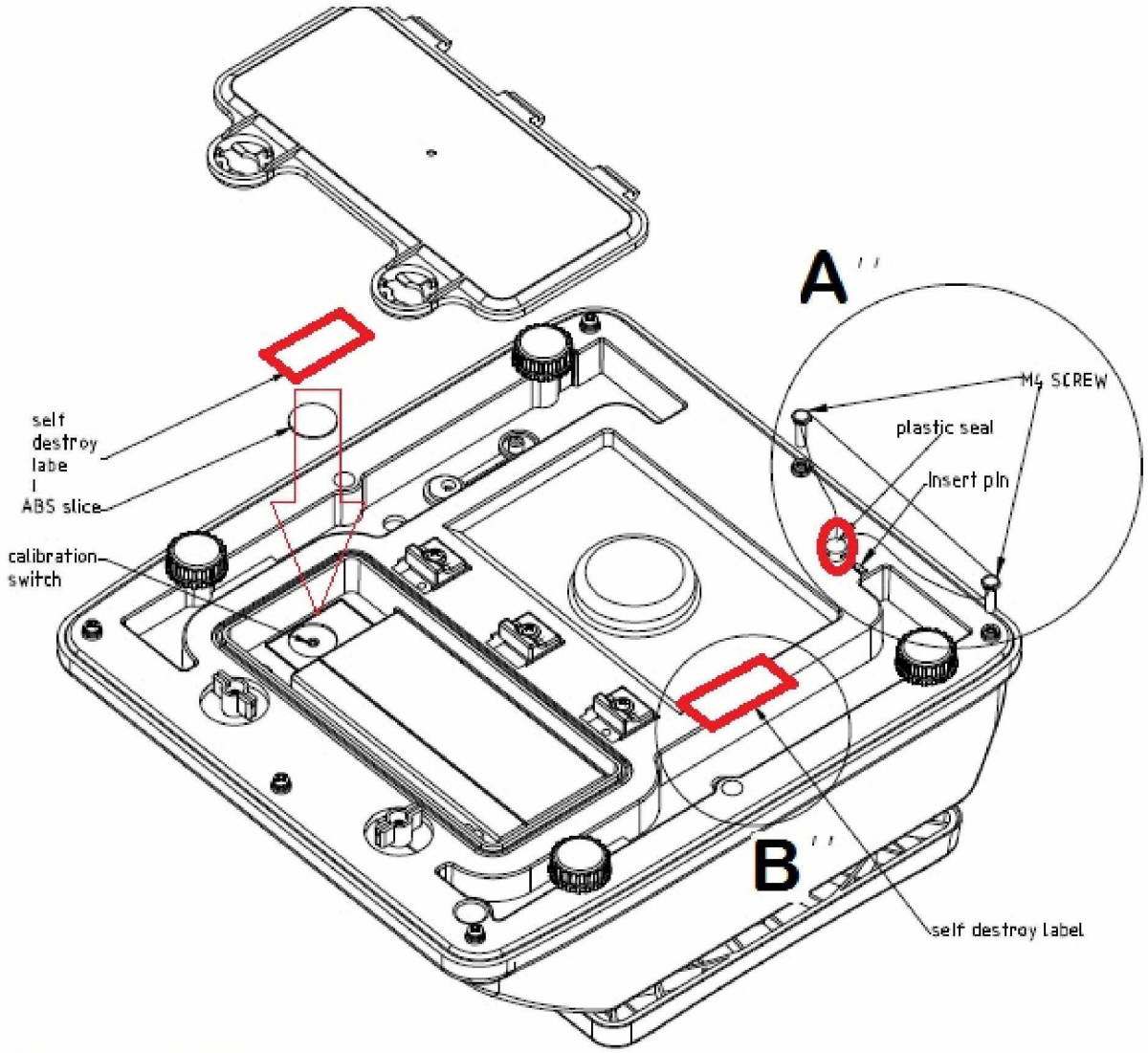
Figure 4 - Typical Sealing Arrangement - Model S29 Series




**Model S29 Series**

**Sealing Locations:**
**(i) Seal the calibration switch, and**
**(ii)Seal the housing, 'A' or 'B'**

Figure 5 - Typical Sealing Arrangement - Model SW Series




**Model SW Series**

**Sealing Locations:**
**(i) Seal the calibration switch, and**
**(ii)Seal the housing, 'A' or 'B'**