



**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: 05 July 2019
Original Date of Issue: 05 July 2019

Certificate 2342

Overseas Certificate No: OIML R76/2006-DK3-17.08

This certifies that the PT PT610 / PT620 / PT630, Instrument described overleaf has been approved as suitable for trade use subject to any conditions stated in the schedule:

Figure 1 - Model PT610 Indicator



Desktop model



Wall hanging model

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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

Overseas Certificate No: OIML R76/2006-DK3-17.08

Pattern:	Indicating Device
Make:	PT
Model:	PT610 / PT620 / PT630
Manufacturer:	PT Limited, Auckland, New Zealand
Submitter:	PT Ltd
Class:	III or IIII
Maximum number of verification scale intervals:	See Table 1
Excitation Voltage (V DC):	5
Minimum Sensitivity ($\mu\text{V}/\text{Scale Interval}$):	0.4
Minimum Load Cell Impedance (Ω):	43
Maximum Load Cell Impedance (Ω):	1200
Fraction of MPE (Pind):	0.5
Conditions of Approval:	<ol style="list-style-type: none">1. The approval does not include the use of the indicator as an automatic weighing instrument.2. Any additional features detailed in this certificate are not approved for trade use.<ol style="list-style-type: none">2. 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.3. Trading Standards reserves the right to examine any instrument or component of an instrument purporting to comply with this approval.

Description:

A PT Ltd Model PT610 / PT620 / PT630 (Figure 1 to 3) digital indicators are approved to configure with a Class III or a Class IIII non-automatic weighing Instrument. Detailed information on scale intervals is shown in Table 1.

Table 1 – Maximum number of verification scale intervals:

Class III:

- Single Interval: $\leq 10\,000$
- Multi-interval: $\leq 10\,000$, per partial weighing range with a maximum number of up to 3 ranges.
- Multi-range: $\leq 10\,000$, per weighing range with a maximum number of up to 3 ranges.

Class IIII:

≤ 1000 for single, multi-interval (3 partial weighing ranges) & multi-range (3 weighing ranges).

TABLE 2 – Specifications

Maximum number of verification scale intervals As detailed in Table 1

Excitation voltage 5 V DC
Minimum load cell impedance 43 Ω
Maximum load cell impedance 1200 Ω
Minimum sensitivity 0.4 μ V/scale interval
Fraction of maximum permissible error 0.5
Temperature range -10°C to +40°C
Tare - 100 % max
Load cell connection 4-wire or 6-wire shielded

Construction:

The indicator comprises a stainless steel enclosure with a LCD type display and an operator interface keyboard. Additionally, PT360 indicator may have two programmable IR keys.

The indicators may have digital input/output board and/or analogue output board via piggy-back board.

Model PT630 has an optional second analogue scale input via a piggy-back board. This model may also be configured to connect to two platforms with analogue load cells, and indicates the summed value.

Display Check:

A display check is initiated whenever power is applied.

Power Supply:

The instruments operates from either:

- mains AC power, 90~240 V AC, 50/60 Hz, or
- 10~30 V DC from external power adapter;
- Indicators may have internal rechargeable battery

Interfaces:

The instruments may be fitted with interfaces for the connection of auxiliary and/or peripheral devices.

Type of Interfaces:

- Load cell terminal connector
- RS232
- RS485
- USB
- Ethernet (only for PT630)
- Analog and/or Digital I/O
- Modbus RTU, Modbus TCP, Profinet, Profibus, Ethercat, CCLink. (only for PT610 and PT630)

Note: The Auxiliary devices shall meet the following conditions:

- (i) have no function that would cause a variation in the display of the measured or computed quantities
 - (ii) is not capable of transmitting any data or instruction into the weighing instrument, other than to release a printout, checking for correct data transmission or validation
- Or

As indicated from time to time by Trading Standards - Type Approvals.

Additional Features:

Indicators may have the following additional functions and are not covered in this approval.

- Piece counting
- Check weighing
- Classifying/Sorting
- Filling against set points
- Weighing unstable samples (animal weighing)
- Totalisation

NOTE: The above additional features are not approved.

Extended Resolution

The indicator may be configured to temporarily display the actual weight with extended resolution ($d=0.1e$). In such configuration, “*” key or the “F” key is used to select the function.

Storage Function – Alibi memory

The indicators may have an optional data storage device (DSD) and when enabled, can store the measurement data.

Data storage must records the following information for all weighing operations:

- Unique ID to identify the weighment
- Date/time of the weighment
- Unique serial number of the device used for the weighment
- Unique ID of the load receptor(s)
- NET weight with the unit of measurement
- TARE value with unit of measurement
- Checksum value for the complete data

Software Identification:

The software version is in the format of “XX.YY”, where ‘XX’ is the legally relevant part of software.

The approved version is: 01.YY

Gravity Compensation

Indicators are provided with Gravity compensation feature.

Tilt Switch Input:

The indicators have a provision to be connected to the tilt switch of a movable platform. The single from the tilt switch will disable the weighing indication when the platform exceeds the set tilt limits.

ZERO SETTING DEVICES:

The Initial zero setting device of the pattern has a nominal range of not more than 20% of the maximum capacity of the instrument.

The Instrument has a semi-automatic zero setting device with a nominal range of not more than 4% of the maximum capacity of the instrument.

Zero tracking operates when the indication is at zero, or at a negative Net value equivalent to Gross zero, when the weight display is stable. The nominal range of zero-setting must not be more than 4% of the maximum capacity of the instrument.

TARE:

Instruments may have a subtractive semi-automatic or an automatic tare device, each having a capacity of up to maximum capacity of the instrument.

A semi-automatic subtractive mode is activated using ‘TARE’ key. In addition to the semi-automatic tare the indicator can be configured to automatic taring, when a load $> 20e$ is placed on the empty load receptor. The automatic tare clear function is activated when gross weight is below $10e$.

Model PT620 and PT630 have the possibility of preset tare.

METROLOGICAL MARKINGS:

Instruments must carry the following markings:

Manufacturer’s mark, or name:

Accuracy class:

Pattern approval number: **TS 2342**

Maximum capacity Maxkg #

Minimum capacity Minkg #

Verification scale interval $e =$ kg #

Maximum subtractive tare T = -kg##
 Serial number of the instrument
 # These markings are also shown near the display of the result.
 ## Tare is required if it is not equal to Max.

Sealing:

Access to calibration switch within the indicator housing must be secured by:

(i) With the indicator housing there is a cover over the calibration switch and load cell connector. The cover must be sealed using approved destructible adhesive label type seal (Figure 4); or

(ii) Alternatively, the indicator housing must be sealed by applying destructible adhesive labels on opposite sides of a join of enclosure cover behind the indicator or using lead and wire type seals with drilled screws.

Mark of Verification:

The approved type seal used to inhibit access to calibration functions of the instrument must carry a Mark of Verification. Removal of seal deems the instrument not verified.

Figure 2 - Model PT620 Indicator



Desktop model



Wall hanging model

Figure 3 - Model PT630 Indicator



Desktop model

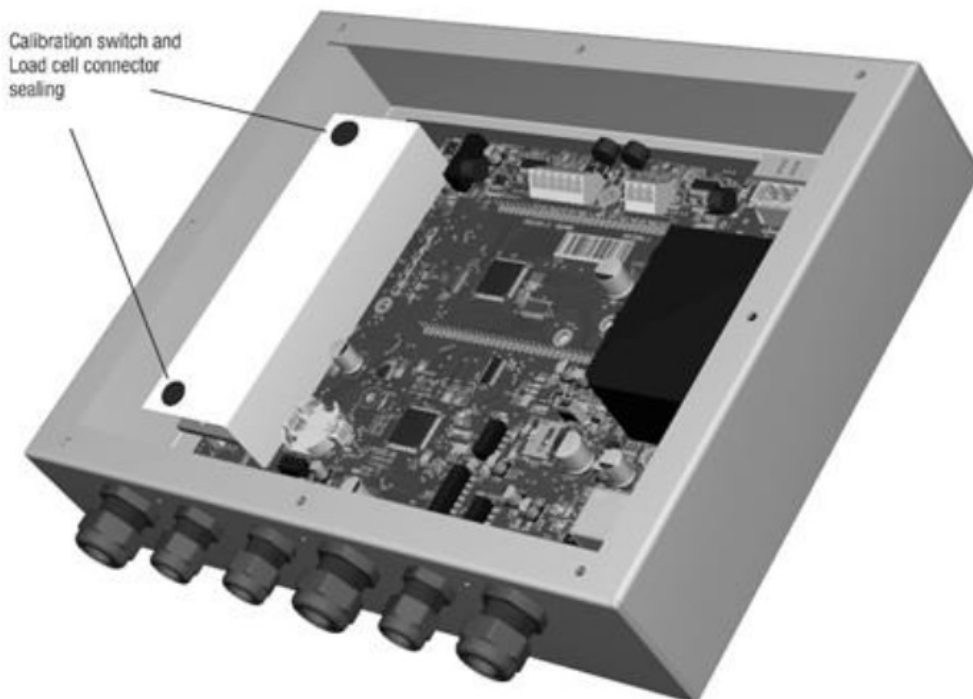


Wall hanging model

Figure 4 - Typical Sealing Provision



Sealing of indicator with brittle sticker – Desktop model



Sealing of indicator with brittle sticker – Wall hanging model