TERMINOLOGY
(terms, definitions and references)

The terminology used in this Recommendation conforms to the "International Vocabulary of Basic and General Terms in Metrology" (VIM) [1], the "International Vocabulary of Terms in Legal Metrology" (VIML) [2], the "OIML Certificate System for Measuring Instruments" [3] and other relevant OIML publications. In addition, for the purposes of this Recommendation, the following definitions apply. An index of all the terms, definitions and references defined below can be found under T.8.

T.1 General definitions

T.1.1 Weighing instrument

Measuring instrument that serves to determine the mass of a body by using the action of gravity on this body.

Note: In this Recommendation "mass" (or "weight value") is preferably used in the sense of "conventional mass" or "conventional value of the result of weighing in air" according to R 111 and D 28, whereas "weight" is preferably used for an embodiment (i.e. material measure) of mass that is regulated in regard to its physical and metrological characteristics.

The instrument may also be used to determine other quantities, magnitudes, parameters or characteristics related to the determined mass.

According to its method of operation, a weighing instrument is classified as an automatic weighing instrument or a non-automatic weighing instrument.

T.1.2 Non-automatic weighing instrument

Instrument that requires the intervention of an operator during the weighing process to decide that the weighing result is acceptable.

Note 1: Deciding that the weighing result is acceptable includes any intelligent action by the operator that affects the result, such as taking an action when an indication is stable or adjusting the mass of the weighed load, and to make a decision regarding the acceptance of each weighing result on observing the indication or releasing a print out. A non-automatic weighing process allows the operator to take an action (i.e. adjust the load, adjust the unit price, determine that the load is acceptable, etc.) which influences the weighing result in the case where the weighing result is not acceptable.

Note 2: In case of doubt as to whether an instrument is a non-automatic weighing instrument or an automatic weighing instrument, the definitions for automatic weighing instruments given in OIML Recommendations R 50, R 51, R 61, R 106, R 107 and R 134 have higher priority than the criteria of *Note 1* above.

A non-automatic weighing instrument may be:

- graduated or non-graduated; or
- self-indicating, semi-self-indicating or non-self-indicating.

Note: In this Recommendation a non-automatic weighing instrument is called an "instrument".

T.1.2.1 Graduated instrument

Instrument allowing the direct reading of the complete or partial weighing result.

T.1.2.2 Non-graduated instrument

Instrument not fitted with a scale numbered in units of mass.

T.1.2.3 Self-indicating instrument

Instrument in which the position of equilibrium is obtained without the intervention of an operator.

T.1.2.4 Semi-self-indicating instrument

Instrument with a self-indicating weighing range, in which the operator intervenes to alter the limits of this range.

T.1.2.5 Non-self-indicating instrument

Instrument in which the position of equilibrium is obtained entirely by the operator.

T.1.2.6 Electronic instrument

Instrument equipped with electronic devices.

T.1.2.7 Instrument with price scales

Instrument that indicates the price to pay by means of price charts or scales related to a range of unit prices.

T.1.2.8 Price-computing instrument

Instrument that calculates the price to pay on the basis of the indicated weight value and the unit price.

T.1.2.9 Price-labeling instrument

Price-computing instrument that prints the weight value, unit price and price to pay for prepackages.

T.1.2.10 Self-service instrument

Instrument that is intended to be operated by the customer.

T.1.2.11 Mobile instrument

Non-automatic weighing instrument mounted on or incorporated into a vehicle.

Note 1: A vehicle-mounted instrument is a complete weighing instrument which is firmly mounted on a vehicle, and which is designed for that special purpose.

Example: Postal scale mounted on a vehicle (mobile post office).

Note 2: A vehicle-incorporated instrument uses parts of the vehicle for the weighing instrument.

Examples: Garbage weighers, patient lifters, pallet lifters, fork lifters, wheel chair weighers.

T.1.2.12 Portable instrument for weighing road vehicles

Non-automatic weighing instrument having a load receptor, in one or several parts, which determines the total mass of road vehicles, and which is designed to be moved to other locations.

Examples: Portable weighbridge, group of associated non-automatic axle (or wheel) load weighers.

Note: This Recommendation covers only weighbridges and groups of associated non-automatic axle (or wheel) load weighers that determine simultaneously the total mass of a road vehicle with all axles (or wheels) being simultaneously supported by appropriate parts of a load receptor.

T.1.2.13 Grading instrument

Instrument which assigns a weighing result to a predetermined range of mass to determine a tariff or toll.

Examples: Postal scales, garbage weighers.

T.1.3 Indications of an instrument

Value of a quantity provided by a measuring instrument.

Note: "Indication", "indicate" or "indicating" includes both displaying and/or printing.

T.1.3.1 Primary indications

Indications, signals and symbols that are subject to requirements of this Recommendation.

T.1.3.2 Secondary indications

Indications, signals and symbols that are not primary indications.

T.2 Construction of an instrument

In this Recommendation the term "device" is used for any means by which a specific function is performed, irrespective of the physical realization, e.g. by a mechanism or a key initiating an operation. The device may be a small part or a major portion of an instrument.

T.2.1 Main devices

T.2.1.1 Load receptor

Part of the instrument intended to receive the load.

T.2.1.2 Load-transmitting device

Part of the instrument for transmitting the force produced by the load acting on the load receptor to the load-measuring device.

T.2.1.3 Load-measuring device

Part of the instrument for measuring the mass of the load by means of an equilibrium device for balancing the force coming from the load transmitting device, and an indicating or printing device.

T.2.2 Module

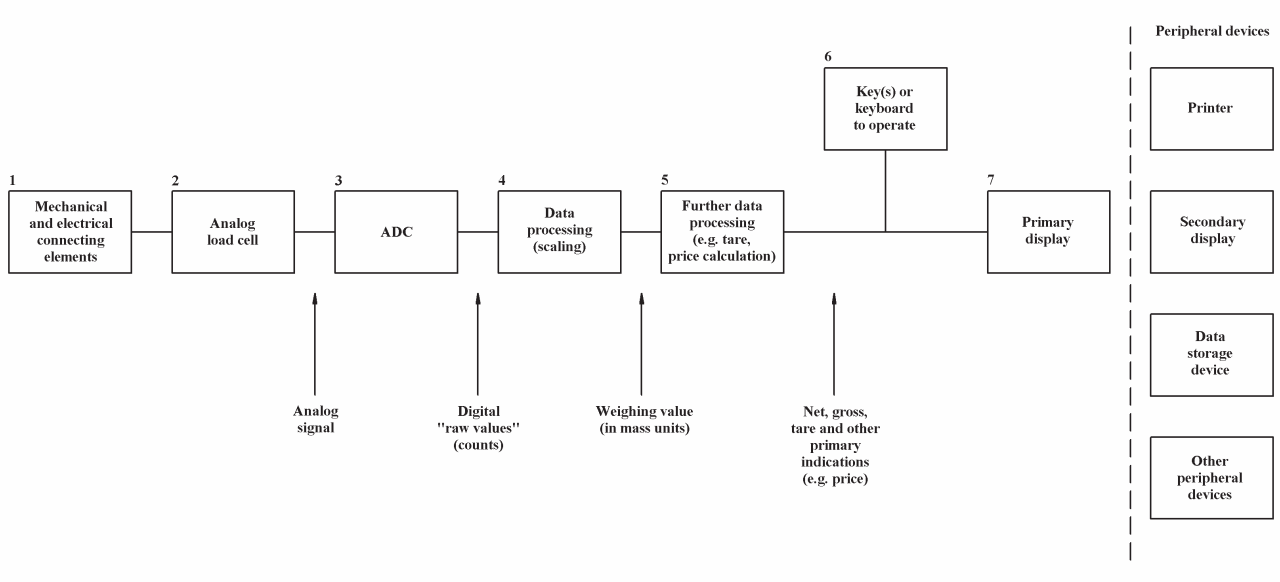
Identifiable part of an instrument that performs a specific function or functions, and that can be separately evaluated according to specific metrological and technical performance requirements in the relevant Recommendation. The modules of a weighing instrument are subject to specified partial error limits.

Note: Typical modules of a weighing instrument are: load cell, indicator, analog or digital data processing device, weighing module, terminal, primary display.

Independent OIML Certificates according to R 76 can be issued for the modules mentioned in T.2.2.2-T.2.2.7.

Figure 1

Definition of typical modules according to T.2.2 and 3.10.2
(other combinations are possible)



Analog load cell	(T.2.2.1)	2
Digital load cell	(T.2.2.1)	2 + 3 + (4)*
Indicator	(T.2.2.2)	(3) + 4 + (5) + (6) + 7
Analog data processing device	(T.2.2.3)	3 + 4 + (5) + (6)
Digital data processing device	(T.2.2.4)	(4) + 5 + (6)
Terminal	(T.2.2.5)	(5) + 6 + 7
Primary display	(T.2.2.6)	7
Weighing module	(T.2.2.7)	1 + 2 + 3 + 4 + (5) + (6)

* Numbers in brackets indicate options

T.2.2.1 Load cell *[OIML R 60: 2000, 2.1.2]*

Force transducer which, after taking into account the effects of the acceleration of gravity and air buoyancy at the location of its use, measures mass by converting the measured quantity (mass) into another measured quantity (output).

Note: Load cells equipped with electronics including amplifier, analog-to-digital converter (ADC), and data processing device (optionally) are called digital load cells (see Figure 1).

T.2.2.2 Indicator

Electronic device of an instrument that may perform the analog-to-digital conversion of the output signal of the load cell, and which further processes the data, and displays the weighing result in units of mass.

T.2.2.3 Analog data processing device

Electronic device of an instrument that performs the analog-to-digital conversion of the output signal of the load cell, further processes the data, and supplies the weighing result in a digital format via a digital interface without displaying it. It may optionally have one or more keys (or mouse, touch-screen, etc.) to operate the instrument.

T.2.2.4 Digital data processing device

Electronic device of an instrument that further processes the data, and supplies the weighing result in a digital format via a digital interface without displaying it. It may optionally have one or more keys (or mouse, touch-screen, etc.) to operate the instrument.

T.2.2.5 Terminal

Digital device that has one or more keys (or mouse, touch-screen, etc.) to operate the instrument, and a display to provide the weighing results transmitted via the digital interface of a weighing module or an analog data processing device.

T.2.2.6 Digital display

A digital display can be realized as a primary display or as a secondary display:

a) Primary display: Either incorporated in the indicator housing or in the terminal housing or realized as a display in a separate housing (i.e. terminal without keys), e.g. for use in combination with a weighing module.

b) Secondary display: Additional peripheral device (optional) which repeats the weighing result and any other primary indication, or provides further, non-metrological information.

Note: The terms “primary display” and “secondary display” should not be confused with the terms “primary indication” and “secondary indication” (T.1.3.1 and T.1.3.2)

T.2.2.7 Weighing module

Part of the weighing instrument that comprises all mechanical and electronic devices (i.e. load receptor, load-transmitting device, load cell, and analog data processing device or digital data processing device) but not having the means to display the weighing result. It may optionally have devices for further processing (digital) data and operating the instrument.

T.2.3 Electronic parts

T.2.3.1 Electronic device *[OIML D 11: 2004, 3.2]*

Device employing electronic sub-assemblies and performing a specific function.

Electronic devices are usually manufactured as separate units and are capable of being tested independently.

Note: An electronic device, as defined above, may be a complete instrument (e.g. an instrument for direct sales to the public), a module (e.g. indicator, analog data processing device, weighing module) or a peripheral device (e.g. printer, secondary display).

T.2.3.2 Electronic sub-assembly *[OIML D 11: 2004, 3.3]*

Part of an electronic device, employing electronic components and having a recognizable function of its own.

Examples: A/D converter, display.

T.2.3.3 Electronic component *[OIML D 11: 2004, 3.4]*

Smallest physical entity that uses electron or hole conduction in semi-conductors, gases or in a vacuum.

Examples: Electronic tube, transistor, integrated circuit.

T.2.3.4 Digital device

Electronic device that only performs digital functions and provides a digitized output or display.

Examples: Printer, primary or secondary display, keyboard, terminal, data storage device, personal computer.

T.2.3.5 Peripheral device

Additional device which repeats or further processes the weighing result and other primary indications.

Examples: Printer, secondary display, keyboard, terminal, data storage device, personal computer.

T.2.3.6 Protective interface

Interface (hardware and/or software) which only allows the introduction of such data into the data processing device of an instrument, module or electronic component, which cannot:

- display data which are not clearly defined and which could be taken for a weighing result;
- falsify displayed, processed or stored weighing results or primary indications; or
- adjust the instrument or change any adjustment factor, except releasing an adjustment procedure with incorporated devices or, in the case of class I instruments with external adjustment weights as well.

T.2.4 Displaying device (of a weighing instrument)

Device providing the weighing result in visual form.

T.2.4.1 Displaying component

Component that displays the equilibrium and/or the result.

- On an instrument with one position of equilibrium it displays only the equilibrium.
- On an instrument with several positions of equilibrium it displays both the equilibrium and the result.

T.2.4.2 Scale mark

Line or other mark on a displaying component corresponding to a specified value of mass.

T.2.5 Auxiliary indicating devices

T.2.5.1 Rider

Detachable poise of small mass that may be placed and moved either on a graduated bar integral with the beam or on the beam itself.

T.2.5.2 Device for interpolation of reading (vernier or nonius)

Device connected to the displaying component and sub-dividing the scale of an instrument, without special adjustment.

T.2.5.3 Complementary displaying device

Adjustable device by means of which it is possible to estimate, in units of mass, the value corresponding to the distance between a scale mark and the displaying component.

T.2.5.4 Indicating device with a differentiated scale division

Digital indicating device of which the last figure after the decimal sign is clearly differentiated from other figures.

T.2.6 Extended displaying device

Device temporarily changing the actual scale interval, *d*, to a value less than the verification scale interval, *e*, following a manual command.

T.2.7 Supplementary devices

T.2.7.1 Leveling device

Device for setting an instrument to its reference (horizontal) position.

T.2.7.2 Zero-setting device

Device for setting the indication to zero when there is no load on the load receptor.

T.2.7.2.1 Non-automatic zero-setting device

Device for setting the indication to zero by an operator.

T.2.7.2.2 Semi-automatic zero-setting device

Device for setting the indication to zero automatically following a manual command.

T.2.7.2.3 Automatic zero-setting device

Device for setting the indication to zero automatically without the intervention of an operator.

T.2.7.2.4 Initial zero-setting device

Device for setting the indication to zero automatically at the time the instrument is switched on and before it is ready for use.

T.2.7.3 Zero-tracking device

Device for maintaining the zero indication within certain limits automatically.

T.2.7.4 Tare device

Device for setting the indication to zero when a load is on the load receptor:

- without altering the weighing range for net loads (additive tare device); or
- reducing the weighing range for net loads (subtractive tare device).

It may function as:

- a non-automatic device (load balanced by an operator);
- a semi-automatic device (load balanced automatically following a single manual command); or
- an automatic device (load balanced automatically without the intervention of an operator).

T.2.7.4.1 Tare-balancing device

Tare device without indication of the tare value when the instrument is loaded.

T.2.7.4.2 Tare-weighing device

Tare device that stores the tare value and that is capable of displaying or printing it whether or not the instrument is loaded.

T.2.7.5 Preset tare device

Device for subtracting a preset tare value from a gross or net weight value and indicating the result of the calculation. The weighing range for net loads is reduced accordingly.

T.2.7.6 Locking device

Device for immobilizing all or part of the mechanism of an instrument.

T.2.7.7 Auxiliary verification device

Device permitting separate verification of one or more main devices of an instrument.

T.2.7.8 Selection device for load receptors and load-measuring devices

Device for attaching one or more load receptors to one or more load-measuring devices, whatever intermediate load-transmitting devices are used.

T.2.8 Software

T.2.8.1 Legally relevant software

Programs, data, type-specific and device-specific parameters that belong to the measuring instrument or module, and define or fulfill functions which are subject to legal control.

Examples: Final results of the measurement, i.e. gross, net and tare / preset tare value (including the decimal sign and the unit), identification of the weighing range and the load receptor (if several load receptors have been used), software identification.

T.2.8.2 Legally relevant parameter

Parameter of a measuring instrument or a module subject to legal control. The following types of legally relevant parameters can be distinguished: type-specific parameters and device-specific parameters.

T.2.8.3 Type-specific parameter

Legally relevant parameter with a value that depends on the type of instrument only. Type-specific parameters are part of the legally relevant software. They are fixed at type approval of the instrument.

Examples: Parameters used for mass calculation, stability analysis or price calculation and rounding, software identification.

T.2.8.4 Device-specific parameter

Legally relevant parameter with a value that depends on the individual instrument. Device-specific parameters comprise calibration parameters (e.g. span adjustment or other adjustments or corrections) and configuration parameters (e.g. maximum capacity, minimum capacity, units of measurement, etc.).

They are adjustable or selectable only in a special operational mode of the instrument. Device-specific parameters may be classified as those that should be secured (unalterable) and those that may be accessed (settable parameters) by an authorized person.

T.2.8.5 Long-term storage of measurement data

Storage used for keeping measurement data ready after completion of the measurement for later legally relevant purposes (e.g. conclusion of a trading transaction at a later date, when the customer is not present for the determination of the amount, or for special applications identified and legislated by the state).

T.2.8.6 Software identification

Sequence of readable characters of software that is inextricably linked to the software (e.g. version number, checksum).

T.2.8.7 Software separation

Unambiguous separation of software into legally relevant software and non-legally relevant software. If no software separation exists, the whole software is to be considered as legally relevant.

T.2.9 Metrologically relevant

Any device, module, part, component or function of a weighing instrument that may influence the weighing result or any other primary indication is considered as metrologically relevant.

T.3 Metrological characteristics of an instrument

T.3.1 Weighing capacity

T.3.1.1 Maximum capacity (Max)

Maximum weighing capacity, not taking into account the additive tare capacity.

T.3.1.2 Minimum capacity (Min)

Value of the load below which the weighing results may be subject to an excessive relative error.

T.3.1.3 Self-indication capacity

Weighing capacity within which equilibrium is obtained without the intervention of an operator.

T.3.1.4 Weighing range

Range between the minimum and maximum capacities.

T.3.1.5 Extension interval of self-indication

Value by which it is possible to extend the range of self-indication within the weighing range.

T.3.1.6 Maximum tare effect (T = + …, T = – …)

Maximum capacity of the additive tare device or the subtractive tare device.

T.3.1.7 Maximum safe load (Lim)

Maximum static load that can be carried by the instrument without permanently altering its metrological qualities.

T.3.2 Scale divisions

T.3.2.1 Scale spacing (instrument with analog indication)

Distance between any two consecutive scale marks.

T.3.2.2 Actual scale interval, *d*

Value, expressed in units of mass of:

- the difference between the values corresponding to two consecutive scale marks, for analog indication; or
- the difference between two consecutive indicated values, for digital indication.

T.3.2.3 Verification scale interval, *e*

Value, expressed in units of mass, used for the classification and verification of an instrument.

T.3.2.4 Scale interval used for numbering

Value of the difference between two consecutive numbered scale marks.

T.3.2.5 Number of verification scale intervals, *n*

Quotient of the maximum capacity and the verification scale interval:

$$n = \text{Max} / e$$

T.3.2.6 Multi-interval instrument

Instrument having one weighing range which is divided into partial weighing ranges each with different scale intervals, with the partial weighing range determined automatically according to the load applied, both on increasing and decreasing loads.

T.3.2.7 Multiple range instrument

Instrument having two or more weighing ranges with different maximum capacities and different scale intervals for the same load receptor, each range extending from zero to its maximum capacity.

T.3.3 Reduction ratio, *R*

The reduction ratio of a load transmitting device is:

$$R = F_M / F_L$$

where: F_M = force acting on the load measuring device,
F_L = force acting on the load receptor.

T.3.4 Type

Definitive model of a weighing instrument or module (including a family of instruments or modules) of which all of the elements affecting its metrological properties are suitably defined.

T.3.5 Family *[adapted from OIML B 3: 2003, 2.3]*

Identifiable group of weighing instruments or modules belonging to the same manufactured type that have the same design features and metrological principles for measurement (for example the same type of indicator, the same type of design of load cell and load transmitting device) but which may differ in some metrological and technical performance characteristics (e.g. Max, Min, *e*, *d*, accuracy class, etc.).

The concept of a "family" primarily aims to reduce the testing required at type examination. It does not preclude the possibility of listing more than one family in one Certificate.

T.4 Metrological properties of an instrument

T.4.1 Sensitivity

For a given value of the measured mass, the quotient of the change, Δl, of the observed variable, l, and the corresponding change, Δm, of the measured mass, m.

T.4.2 Discrimination

Ability of an instrument to react to small variations of load.

The discrimination threshold, for a given load, is the value of the smallest additional load that, when gently deposited on or removed from the load receptor, causes a perceptible change in the indication.

T.4.3 Repeatability

Ability of an instrument to provide results that agree one with the other when the same load is deposited several times and in a practically identical way on the load receptor under reasonably constant test conditions.

T.4.4 Durability

Ability of an instrument to maintain its performance characteristics over a period of use.

T.4.5 Warm-up time

Time between the moment power is applied to an instrument and the moment at which the instrument is capable of complying with the requirements of this Recommendation.

T.4.6 Final weight value

Weight value that is achieved when the instrument is completely at rest and balanced, with no disturbances affecting the indication.

T.5 Indications and errors

T.5.1 Methods of indication

T.5.1.1 Balancing by weights

Value of metrologically controlled weights that balances the load (taking into account the reduction ratio of the load).

T.5.1.2 Analog indication

Indication enabling the evaluation of the equilibrium position to a fraction of the scale interval.

T.5.1.3 Digital indication

Indication in which the scale marks are composed of a sequence of aligned figures that do not permit interpolation to fractions of the scale interval.

T.5.2 Weighing results

Note: The definitions in T.5.2 apply only when the indication has been zero before the load has been applied to the instrument.

T.5.2.1 Gross value, G or B

Indication of the weight value of a load on an instrument, with no tare or preset tare device in operation.

T.5.2.2 Net value, N

Indication of the weight value of a load placed on an instrument after operation of a tare device.

T.5.2.3 Tare value, T

Weight value of a load, determined by a tare weighing device.

T.5.3 Other weight values

T.5.3.1 Preset tare value, PT

Numerical value, representing a weight, that is introduced into the instrument and is intended to be applied to other weighings without determining individual tares.

"Introduced" includes procedures such as: keying in, recalling from a data storage device, or inserting via an interface.

T.5.3.2 Calculated net value

Value of the difference between a measured weight value (gross or net) and a preset tare value.

T.5.3.3 Calculated weight value

Calculated sum or difference of more than one measured weight value and/or calculated net value.

T.5.4 Reading

T.5.4.1 Reading by simple juxtaposition

Reading of the weighing result by simple juxtaposition of consecutive figures giving the weighing result, without the need of calculation.

T.5.4.2 Overall inaccuracy of reading

On an instrument with analog indication, this is equal to the standard deviation of the same indication, the reading of which is carried out under normal conditions of use by several observers.

It is customary to make at least ten readings of the result.

T.5.4.3 Rounding error of digital indication

Difference between the indication and the result the instrument would give with analog indication.

T.5.4.4 Minimum reading distance

Shortest distance that an observer is able freely to approach the displaying device to take a reading under normal conditions of use.

This approach is considered to be free for the observer if there is a clear space of at least 0.8 m in front of the displaying device (see Figure 2).

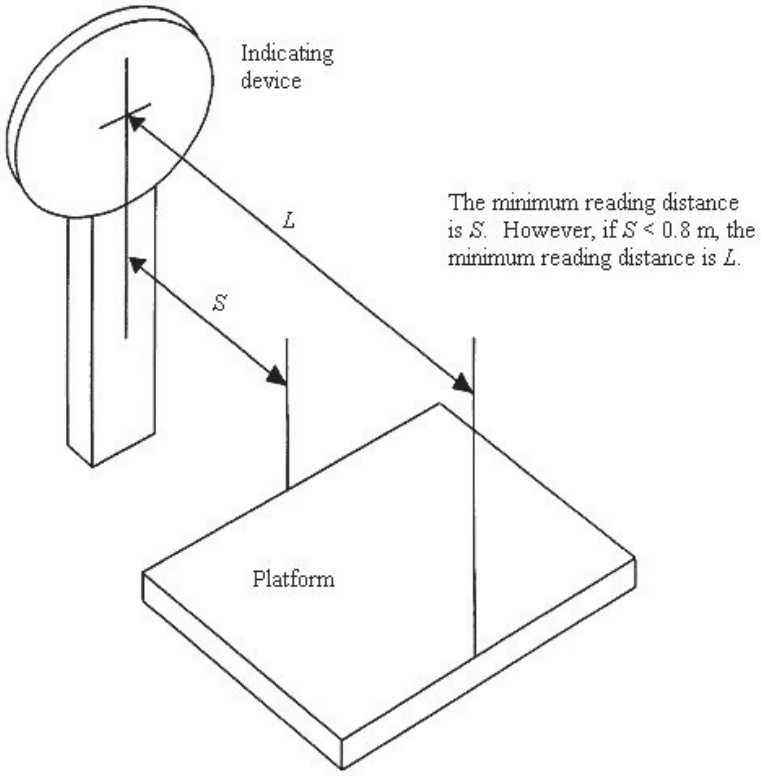


Figure 2

T.5.5 Errors

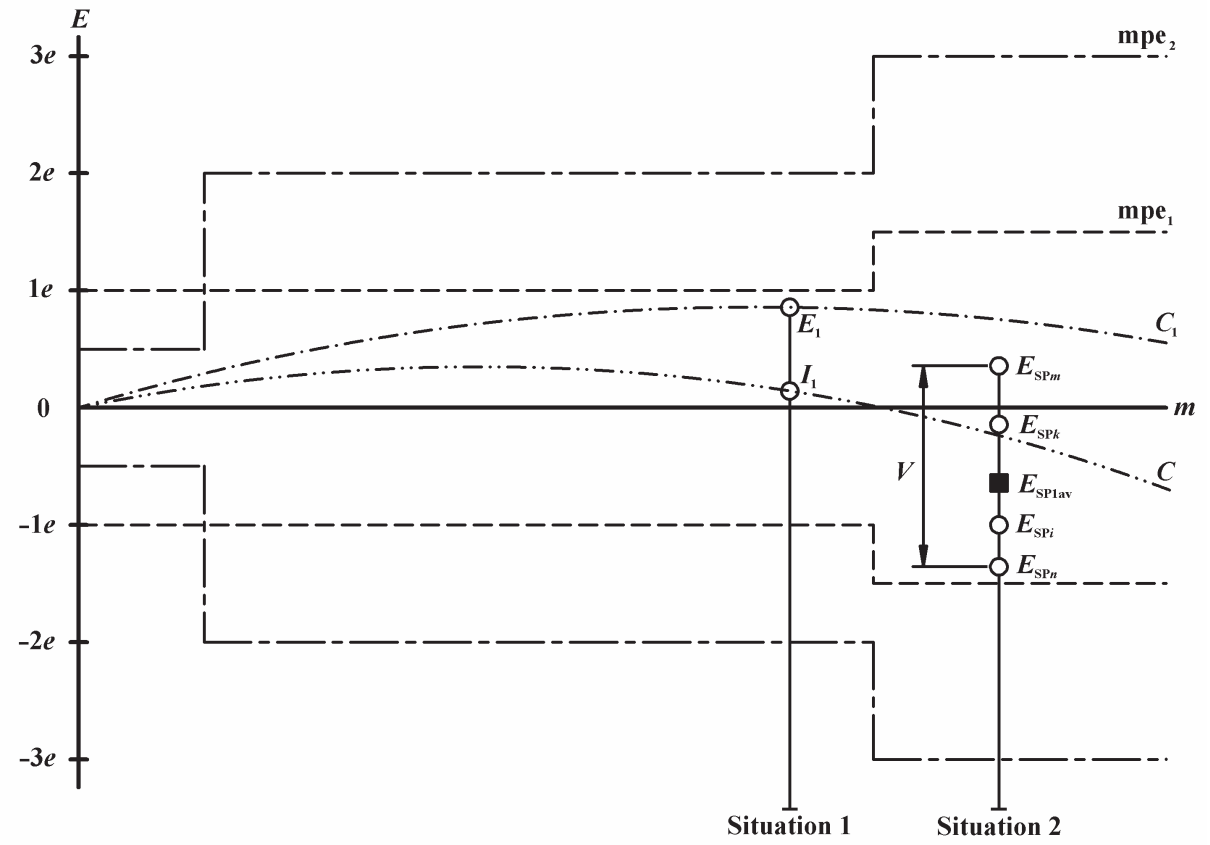


Figure 3

m = mass to be measured

E = error of indication (T.5.5.1)

mpe_1 = maximum permissible error on initial verification

mpe_2 = maximum permissible error in service

C = characteristic under reference conditions

C_1 = characteristic due to influence factor or disturbance

(For the purposes of this illustration it is supposed that the influence factor or the disturbance has an influence on the characteristic which is not erratic)

E_{SP} = error of indication evaluated during span stability test

I = intrinsic error (T.5.5.2)

V = variation in the errors of indication during span stability test

Situation 1: shows the error E_1 of an instrument due to an influence factor or a disturbance. I_1 is the intrinsic error. The fault (T.5.5.5) due to the influence factor or disturbance applied equals $E_1 - I_1$.

Situation 2: shows the average value, E_{SP1av}, of the errors at the first measurement of the span stability test, some other errors (E_{SPi}, and E_{SPk}) and the extreme values of the errors E_{SPm} and E_{SPn}, all these errors being evaluated at different moments during the span stability test. The variation, V, in the errors of indication during the span stability test equals $E_{SPm} - E_{SPn}$.

T.5.5.1 Error (of indication) *[adapted from VIM 1993, 3.10]*

Indication of an instrument minus the (conventional) true value of the corresponding mass.

T.5.5.2 Intrinsic error *[VIM: 1993, 5.4]*

Error of an instrument determined under reference conditions.

T.5.5.3 Initial intrinsic error

Intrinsic error of an instrument as determined prior to the performance and span stability tests.

T.5.5.4 Maximum permissible error, mpe

Maximum difference, positive or negative, allowed by regulation between the indication of an instrument and the corresponding true value, as determined by reference standard masses or standard weights, with the instrument being at zero at no-load, in the reference position.

T.5.5.5 Fault

Difference between the error of indication and the intrinsic error of an instrument.

Note: Principally, a fault is the result of an undesired change of data contained in or flowing through an electronic instrument.

T.5.5.6 Significant fault

Fault greater than *e*.

Note: For a multi-interval instrument, the value of *e* is that appropriate to the partial weighing range.

The following are not considered to be significant faults, even when they exceed *e*:

- faults arising from simultaneous and mutually independent causes in the instrument;
- faults implying the impossibility to perform any measurement;
- faults being so serious that they are bound to be noticed by all those interested in the result of measurement; or
- transitory faults, being momentary variations in the indication which cannot be interpreted, memorized or transmitted as a measuring result.

T.5.5.7 Durability error

Difference between the intrinsic error over a period of use and the initial intrinsic error of an instrument.

T.5.5.8 Significant durability error

Durability error greater than *e*.

Note 1: A durability error can be due to mechanical wear and tear or due to drift and ageing of electronic parts. The concept of significant durability error applies only to electronic parts.

Note 2: For a multi-interval instrument, the value of *e* is that appropriate to the partial weighing range.

Errors, occurring after a period of instrument use, are not considered to be significant durability errors, even when they exceed *e*, if they are clearly the result of the failure of a device/component, or of a disturbance and for which the indication:

- cannot be interpreted, memorized, or transmitted as a measurement result;
- implies the impossibility to perform any measurement; or
- is so obviously wrong that it is bound to be noticed by all those interested in the result of measurement.

T.5.5.9 Span stability

Capability of an instrument to maintain the difference between the indication at maximum capacity and the indication at zero over a period of use within specified limits.

T.6 Influences and reference conditions

T.6.1 Influence quantity

Quantity that is not the subject of the measurement but which influences the values of the measurand or the indication of the instrument.

T.6.1.1 Influence factor

Influence quantity having a value within the specified rated operating conditions of the instrument.

T.6.1.2 Disturbance

Influence quantity having a value within the limits specified in this Recommendation, but outside the specified rated operating conditions of the instrument.

T.6.2 Rated operating conditions *[VIM: 1993, 5.5]*

Conditions of use, giving the range of values of influence quantities for which the metrological characteristics are intended to lie within the specified maximum permissible errors.

T.6.3 Reference conditions

Set of specified values of influence factors fixed to ensure valid inter-comparison of the results of measurements.

T.6.4 Reference position

Position of the instrument at which its operation is adjusted.

T.7 Performance test

Test to verify whether the equipment under test (EUT) is capable of performing its intended functions.

T.8 Index of terms defined

The numbers in brackets refer to important chapters of this Recommendation.

Actual scale interval (3.4.3, 3.5.3.2, 3.8.2.2, A.4.8.2) T.3.2.2
Analog data processing device (3.10.2.2, 3.10.2.4, F.3) T.2.2.3
Analog indication (3.8.2.1, 4.6.3, A.4.8.1) T.5.1.2
Automatic zero-setting device (4.5.6, A.4.1.5, A.4.2.1.3) T.2.7.2.3
Auxiliary indicating devices (3.1.2, 3.4, 4.13.7) T.2.5
Auxiliary verification device (3.7.2, 4.9) T.2.7.7
Calculated net value (4.7.1) T.5.3.2
Calculated weight value (4.6.11) T.5.3.3
Complementary indicating device (3.4.1, 4.3.2) T.2.5.3
Device for interpolation of reading (3.4.1) T.2.5.2
Device-specific parameter (4.1.2.4, 7.1.4, G.2.2.3) T.2.8.4
Digital indication (3.5.3.2, 3.8.2.2, 4.2.2.2, 4.5.5, 4.13.6, A.4.1.6, A.4.4.3, A.4.8.2) T.5.1.3
Digital device (3.10.2.1, 3.10.4.6, 4.13.6, F.5, G) T.2.3.4
Digital display (3.10.2.4, C.1) T.2.2.6
Discrimination (3.8, 6.1, A.4.8) T.4.2
Displaying component (4.3, 6.2, 6.3, 6.6) T.2.4.1
Displaying device (2.4, 3.6.3, 4.2.1, 4.2.4, 4.3, 4.4, 4.17.1, 6.2, A.4.5, E.2.2) T.2.4
Disturbance (3.10.2.2, 3.10.3, 5.1.1, 5.3, 5.4.3, B.3) T.6.1.2
Durability (3.9.4.3, A.6) T.4.4
Durability error (3.9.4.3, A.6) T.5.5.7
Electronic component (4.1.2.4) T.2.3.3
Electronic device (5.5) T.2.3.1
Electronic instrument (2.3, 5, B) T.1.2.6
Electronic sub-assembly (4.1.2.4) T.2.3.2
Error (of indication) (2.2, 3.1.1, 3.5, 3.6, 5.1.1, 8.3.3) T.5.5.1
Extended displaying device (3.4.1, 4.4.3, 4.13.7) T.2.6
Extension interval of self-indication (4.2.5) T.3.1.5
Family (3.10.4, 8.2.1) T.3.5
Fault (5.1, 5.2) T.5.5.5
Final weight value (4.4.2) T.4.6
Grading instrument (3.2) T.1.2.13
Graduated instrument (3.1.2) T.1.2.1
Gross value (4.6.5, 4.13.3) T.5.2.1
Indications of an instrument (3.8.2, 4.2, 4.3.3, 4.4, 4.6.12) T.1.3
Indicating device with a differentiated scale division (3.4.1) T.2.5.4
Indicator (3.10.2, 5.3.1, 5.5.2, 7.1.5.3, C, F) T.2.2.2
Influence factor (3.5.3.1, 5.4.3, A.5) T.6.1.1
Initial intrinsic error (A.4.4.1) T.5.5.3
Initial zero-setting device (4.5.1, 4.5.4, A.4.4.2) T.2.7.2.4
Instrument with price scales (4.14.2) T.1.2.7
Intrinsic error (5.3.4, A.4.4.1, A.6) T.5.5.2
Legally relevant parameter (5.5.2.2, 5.5.3) T.2.8.2
Legally relevant software (5.5.2, 5.5.3, G.1, G.2) T.2.8.1
Leveling device (3.9.1, 4.18.2) T.2.7.1
Load cell (3.10.2.1, 3.10.2.4, 7.1.5.3, C, F) T.2.2.1
Load-measuring device (2.4, 6.9, 4.11, 7.1.5.1) T.2.1.3
Load receptor (3.6, 4.11, 7.1.5.1, A.4.7) T.2.1.1
Load-transmitting device (3.10.2.1, 4.11) T.2.1.2
Locking device (4.8.1) T.2.7.6
Long-term storage of measurement data (5.5.3) T.2.8.5
Maximum capacity (3.3, 4.13, 6.6, 6.8) T.3.1.1
Maximum permissible error (2.2, 3.1, 3.5, A.4.4.1) T.5.5.4
Maximum safe load (7.1.2) T.3.1.7
Maximum tare effect (A.4.6.1) T.3.1.6
Metrologically relevant (3.10.4) T.2.9
Minimum capacity (2.2, 3.2, 3.4.3) T.3.1.2
Minimum reading distance (4.3.1, 4.3.2) T.5.4.4
Mobile instrument (3.9.1.1, 4.18, A.4.7.5, A.4.12, A.5.1.3) T.1.2.11
Module (3.10.2, 5.5.2, 7.1.5.3, C, E, F) T.2.2
Multi-interval instrument (3.3, 3.4.1) T.3.2.6
Multiple range instrument (3.2, 4.5.3, 4.6.7, 4.10) T.3.2.7
Net value (3.5.3.3, 4.6.5, 4.6.11) T.5.2.2
Non-automatic weighing instrument (1 etc.) T.1.2

Non-automatic zero-setting device (4.13.2) T.2.7.2.1
Non-graduated instrument (3.1.2) T.1.2.2
Non-self-indicating instrument (3.8.1, 6) T.1.2.5
Number of verification scale intervals (2.2, 3.2, 3.3.1, 3.4.4, C.1.2, E.1.2.3, F) T.3.2.5
Overall inaccuracy of reading (4.2.1) T.5.4.2
Performance test (5.4, A.4, B.3, B.4, C.2.2.1, C.2.4, C.3.1) T.7
Peripheral device (3.10.3, 5.3.6, 5.5.2, 7.1.5.4, B.3) T.2.3.5
Portable instrument (4.3.4, 4.19, A.4.13) T.1.2.12
Preset tare device (2.4, 4.7, 4.13.4) T.2.7.5
Preset tare value (3.5.3.3, 4.7, 4.13.4, 4.16) T.5.3.1
Price-computing instrument (4.13.11, 4.14) T.1.2.8
Price-labeling instrument (4.16) T.1.2.9
Primary indications (4.4.4, 4.4.6, 4.13, 4.14.1, 4.14.4, 5.3.6.1, 5.3.6.3, 5.5.2.1) T.1.3.1
Protective interface (3.10.3, 5.5.2.2) T.2.3.6
Reading by simple juxtaposition (4.2.1) T.5.4.1
Reduction ratio (6.2.3, F.1, F.2.7) T.3.3
Reference position (3.9.1.1, 6.2.1.3, 6.3.1, A.4.1.4, A.4.3, A.5.1) T.6.4
Repeatability (3.6.1, 3.7.3, 8.3.3, A.4.1.7, A.4.4.5, A.4.10, C.2.7, C.3.1.1) T.4.3
Rider (3.4.1) T.2.5.1
Rounding error or digital indication (3.5.3.2, B.3) T.5.4.3
Scale interval used for numbering (4.3.1) T.3.2.4
Scale mark (4.3.1, 4.17.2, 6.2, 6.3, 6.6.1.1) T.2.4.2
Scale spacing (4.3, 6.2.2.2, 6.6.1.1, 6.9.3) T.3.2.1
Secondary indications (4.2.4) T.1.3.2
Selection device for load receptors and load-measuring devices (4.11) T.2.7.8
Self-indicating instrument (3.8.2, 4, 5, 6) T.1.2.3
Self-indication capacity (3.6.4, 3.9.1.1, 4.2.5) T.3.1.3
Self-service instrument (4.13.11) T.1.2.10
Semi-automatic zero-setting device (4.5.4, 4.6.5, 4.6.9) T.2.7.2.2
Semi-self-indicating instrument (3.8.2, 4.2.5, 4.12, 4.17, 5) T.1.2.4
Sensitivity (4.1.2.4, 6.1, A.4.9) T.4.1
Significant fault (4.13.9, 5.1, 5.2, 5.3.4, B.1, B.3) T.5.5.6
Software (4.1.2.4, 5.5.1, 5.5.2.2, 5.5.3, 7.1.4, 8.2.1.2, C.1, E.1, G) T.2.8
Software identification (5.5.1, 5.5.2.2, 7.1.2, 8.3.2, G.1, G.2.4) T.2.8.6
Software separation (5.5.2.2, G.2.3) T.2.8.7
Span stability (3.10, 5.3.3, 5.4, B.4) T.5.5.9
Tare-balancing device (4.6) T.2.7.4.1
Tare device (3.3.4, 4.2.3, 4.6, 4.13.3, 6.3.5, A.4.6.2) T.2.7.4
Tare value (3.5.3.4, 4.6.5, 4.6.11, 4.13.3.2, 5.5.3.2, A.4.6.1, C.3.2, G.3.3) T.5.2.3
Tare-weighing device (3.5.3.4, 3.6.3, 4.2.2.1, 4.5.4, 4.6.2, A.4.6.3) T.2.7.4.2
Terminal (3.10.2.4, 5.5.2, C.1, E.2.2) T.2.2.5
Type (2.3 etc.) T.3.4
Type specific parameter (5.5.2.2, G.2.2, G.2.4) T.2.8.3
Verification scale interval (2.2, 3.1.2, 3.2, 3.3.1, 3.4, 3.5.1) T.3.2.3
Warm-up time (5.3.5, A.5.2, B.1, B.3) T.4.5
Weighing instrument (1) T.1.1
Weighing module (3.10.2, 7.1.5.3, E.1, E.2, E.3, E.4) T.2.2.7
Weighing range (3.2, 3.3, 3.9.5, 4.2.3, 4.10) T.3.1.4
Weighing results (3.6, 4.2, 4.3.1, 4.4.4, 4.6.11, 4.6.12, 4.13.1) T.5.2
Zero-setting device (4.5, 4.6.5, 4.13.2, 6.4.2, 6.6, 6.7, 6.8, A.4.2.1.3, A.4.2.3.1) T.2.7.2
Zero-tracking device (4.5, A.4.1.5) T.2.7.3