



SLOVENSKI STANDARD

SIST EN 50148:1997

01-november-1997

Electronic taximeters

Electronic taximeters

Elektronische Fahrpreisanzeiger

Taximètres électroniques

Ta slovenski standard je istoveten z: EN 50148:1995

<https://standards.iteh.ai/catalog/standards/sist/90508691-42d6-4cec-bea3-6fc07ec4a3ff/sist-en-50148-1997>

ICS:

03.220.01	Transport na splošno	Transport in general
43.040.30	Prikazovalne in kontrolne naprave	Indicating and control devices

SIST EN 50148:1997

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 50148:1997

<https://standards.iteh.ai/catalog/standards/sist/90508691-42d6-4cec-bea3-6fc07ec4a3ff/sist-en-50148-1997>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 50148

September 1995

ICS 19.080; 39.040.20; 43.040.30

Descriptors: Taxi, fare to be paid by the passenger of a taxi, taximeter, electronic taximeter

English version

Electronic taximeters

Taximètres électroniques

Elektronische Fahrpreisanzeiger

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 50148:1997
This European Standard was approved by CENELEC on 1994-12-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

This European Standard was prepared by CENELEC BTTF 63-4, Electronic taximeters.

The text of the draft, based on document BT(IT/NOT)12, was submitted to the formal vote and was approved by CENELEC as EN 50148 on 1994-12-06.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 1995-12-15
 - latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1995-12-15
-

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 50148:1997

<https://standards.iteh.ai/catalog/standards/sist/90508691-42d6-4cec-bea3-6fc07ec4a3ff/sist-en-50148-1997>

CONTENTS

1.	Scope	6
2.	Definitions	6
2.1.	Electronic taximeters	6
2.2.	Device constant k of the taximeter	6
2.3.	Vehicle constant w	6
2.4.	Totalizers	6
2.5.	Initial hire fee	6
2.6.	Initial distance	6
2.7.	Initial time	7
2.8.	Time-counting	7
2.9.	Distance-counting	7
2.10.	Time-distance counting	7
2.11.	Single system calculation	7
2.12.	Double system calculation	7
2.13.	Maximum permissible error (MPE)	7
2.14.	Distance measuring signal	7
2.15.	Time measuring signal	7
2.16.	Reference number of pulses	7
2.17.	Tariff	8
2.18.	Tariff values	8
2.19.	Distance tariff value	8
2.20.	Time tariff value	8

ITeH STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50148:1997](#)

[https://standards.iteh.ai/catalog/standards/sist/90508691-42d6-4ccc-bea3-6fc07ec4a3ff/sist-en-50148-1997](#)

Page 4

EN 50148:1995

2.21.	Tariff position.....	8
2.22.	Tariff regulation	8
2.23.	Supplement	8
2.24.	Calculating device	8
2.25.	Adjustment device	8
2.26.	Securing	9
2.27.	Sealing	9
3.	Unit of measurement	9
4.	Technical characteristics	9
4.1.	Calculating device	9
4.1.1.	Calculation methods	9
4.1.2.	Price indication	9
4.1.3.	Device constant	9
4.1.4.	Tariff positions	10
4.2.	Operating device	10
4.2.1.	Operating position "FOR HIRE"	10
4.2.2.	Operating position "OCCUPIED"	10
4.2.3.	Operating position "FARE"	10
4.2.4.	Operating position "MEASURE"	11
4.2.5.	Restrictions	11
4.2.6.	Supplement device	11
4.3.	Indicating device	11
4.4.	Totalizers	12
4.5.	Tariff programming	12
4.5.1.	Input of tariff data	12
4.5.2.	Display of tariff data	13
4.6.	Test connector	13
4.7.	Auxiliary devices	13

STANDARD PREVIEW
(standards.itech.ai)

SIST EN 50148:1997

<https://standards.itech.ai/catalog/standards/sist/90508691-42d6-4ccc-bea3-4a3ff/sist-en-50148-1997>

5.	Design and constructional requirements	14
6.	Operating characteristics	14
6.1.	Voltage range	14
6.2.	General properties	14
7.	Maximum permissible errors	14
7.1.	MPE of calculating device and time measuring signal	14
7.2.	Tariff values used in the determination of errors	15
7.3.	MPE of the adjustment device	15
8.	Sealing	15
8.1.	Mechanical sealing	15
8.2.	Electronic sealing	15
9.	Marking and other instrument information	16
10.	Type tests	16
10.1.	General	16
10.2.	Test conditions	16
10.3.	Conformity and document inspection	17
10.4.	Function test	17
10.5.	Function control	17
10.6.	Visual inspection	17
10.7.	Dry heat test	17
10.8.	Damp heat test	17
10.9.	Cold test	17
10.10.	Vibration test	18
11.	Electromagnetic compatibility	18
11.1.	Immunity tests	18
11.2.	Emission test	19

iTeh STANDARD PREVIEW
(standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/sist/90508691-42d6-4cec-bea3-6f07cc4a3ff/sist-en-50148-1997>

ELECTRONIC TAXIMETERS

1. Scope

This Standard applies to electronic taximeters, hereinafter referred to by the general term taximeters, to be installed on public hire vehicles (taxis or cabs) which, with the aid of electronic devices, calculate and indicate the amount to be paid by the passenger of the taxi.

This standard does not apply to taximeters being remotely controlled by external intelligence as far as it concerns the functions described in this standard.

This standard does not deal with performance requirements of the taximeter after installation or with the installation itself.

2. Definitions

For the purpose of this Standard the following definitions apply.

2.1. Electronic taximeters

Electronic taximeters are instruments normally installed in taxis which, mainly by means of electronic components, calculate and display the fare to be paid for the use of the taxi, on the basis of distance travelled and duration of the hiring.

[SIST EN 50148:1997](https://standards.iteh.ai/catalog/standards/sist/90508691-42d6-4ccc-bea3-6fc07ec4a3ff/sist-en-50148-1997)

2.2. Device constant k of the taximeter

The device constant k of the taximeter is a value giving the number of the pulses which the instrument must receive in order to correctly indicate a distance travelled of 1 kilometre. According to the construction of the instrument, the device constant k may be adjustable.

2.3. Vehicle constant w

The vehicle constant w is a value giving the number of pulses supplied to the taximeter and appearing on the connecting component of the vehicle for a distance travelled of 1 kilometre. The constant w is expressed in pulses per kilometre (km^{-1}).

2.4. Totalizers

The totalizers are formed by counting registers, which accumulate values for purposes other than the transaction between driver and customer.

2.5. Initial hire fee

The initial hire fee is a fixed amount, charged to the passenger, regardless of the time or distance of the journey.

2.6. Initial distance

The distance which can be travelled according to the tariff for the initial hire fee, considering distance-counting only.

2.7. Initial time

The period during which the taxi can be used for the initial hire fee, considering time-counting only.

2.8. Time-counting

Time-counting is the calculation mode in which the fare increases in proportion to the duration of the hiring.

2.9. Distance-counting

Distance-counting is the calculation mode in which the fare increases in proportion to the distance travelled.

2.10. Time-distance counting

Time-distance counting is the calculation mode in which two additional components of the fare increase concurrently, one in proportion to the duration of the hiring and the other in proportion to the distance travelled.

2.11. Single system calculation [SIST EN 50148:1997](#)

<https://standards.iteh.ai/catalog/standards/sist/90508691-42d6-4cec-bea3-60c07cc4a318/sist-en-50148-1997>
Single system calculation calculates the fare using either time-counting or distance-counting (see 4.1.1. under a).

2.12. Double system calculation

Double system calculation calculates the fare using time-distance counting.

2.13. Maximum permissible error (MPE)

The maximum value of the error allowed.

2.14. Distance measuring signal

The signal supplied by the taximeter to the calculating device, in proportion to the distance travelled.

2.15. Time measuring signal

The signal supplied by the taximeter to the calculating device, in proportion to the duration of the hiring.

2.16. Reference number of pulses

The theoretical number of pulses from the distance- and/or time measuring signal, which can be calculated using the tariff data and the device constant k , which should lead to a certain change in the price indication.

2.17. Tariff

A set of tariff values which will be operative in the taximeter in a specified tariff position.

2.18. Tariff values

The values from which the taximeter calculates the fare.

2.19. Distance tariff value

The tariff value expressed as an amount of money for a given distance.

2.20. Time tariff value

The tariff value expressed as an amount of money for a given period of time.

2.21. Tariff position

A position to which the taximeter can be adjusted in the operating position OCCUPIED. Pre-adjustment may be possible in the operating position FOR HIRE.

2.22. Tariff regulation

A regulation, establishing which tariffs and supplements are to be applied under specified conditions.

2.23. Supplement

An amount of money charged to the passenger for an extra service, which is not the result of the measurement performed by the taximeter.

2.24. Calculating device

The part of the taximeter by which the measured distance and the measured time are converted into the fare, using the selected tariff-values.

2.25. Adjustment device

The part of the calculating device, by which the device constant can be adjusted to the vehicle constant.

2.26. Securing

Securing includes all measures which will make unauthorised changes to the taximeter improbable and/or detectable because the knowledge, tools or parts necessary to perform or conceal such changes are not expected to be available to an unauthorised person.

2.27. Sealing

Sealing includes those securing measures which can only be applied by persons authorised to apply a legally protected sealing mark.

3. Unit of measurement

The distance and time shall be presented in S.I. units.

The fare and any supplement shall be displayed in legal monetary units of the country where the taximeter will be used.

In countries where Imperial units are legal, these units may be used.

4. Technical characteristics

4.1. Calculating device

4.1.1. Calculation methods

The calculation of the fare can be carried out by one of the following methods:

a) By time-counting or distance-counting.

The change of time-counting to distance-counting shall take place when the speed of the car is such that the distance-counting becomes more important than the time-counting, taking into account the applied tariff values. This speed is determined by the value resulting from the division of the time-tariff value by the distance tariff-value.

b) By time-distance counting.

The taximeter shall be constructed in such a way that both calculation methods are possible. It must be possible to secure this switch option.

4.1.2. Price indication

Time-counting and/or distance-counting shall be activated when the taximeter is switched to the operating position OCCUPIED. At this moment the initial hire fee shall be indicated.

The first change in price indication shall take place after initial distance or initial time or combination of time and distance. The initial distance and the initial time are specified in the applied tariff.

The subsequent changes in price indication shall take place after a certain time or distance has elapsed.

For double system calculation a subsequent change in price indication shall take place after a combination of time elapsed and distance travelled in accordance with the selected tariff. This also applies in case of single system calculation if a change from time-counting to distance-counting or vice versa occurs. In this case no rounding related to the monetary step is allowed.

4.1.3. Device constant

The device constant k shall not be lower than 500 pulses per kilometre and it shall be possible to adjust it to the vehicle constant w with such an accuracy that the maximum permissible error specified in sub-clause 7.3. is not exceeded. It shall be possible to display the device constant k on the taximeter as a readily accessible decimal number.