



SLOVENSKI STANDARD

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Poštna storitve - Kakovost storitev - Merjenje časa prenosa od sprejema do vročitve za posamične pošiljke prednostne pošte in pošte prvega razreda

Postal services - Quality of services - Measurement of the transit time of end-to-end services for single piece priority mail and first class mail

Postalische Dienstleistungen - Dienstqualität - Messung der Durchlaufzeit von Einzelbriefsendungen mit Vorrang und Einzelbriefsendungen erster Klasse von Ende zu Ende
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Services postaux - Qualité de service - Mesure du délai d'acheminement des services de bout en bout pour le courrier prioritaire égrené et de première classe
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03.240	Poštna storitve	Postal services

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EUROPEAN STANDARD

EN 13850

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2020

ICS 03.240

English Version

Postal services - Quality of services - Measurement of the transit time of end-to-end services for single piece priority mail and first class mail

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This European Standard was approved by CEN on 27 April 2020.

CEN 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 CEN-CENELEC Management Centre or to any CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 13850:2020) has been prepared by Technical Committee CEN/TC 331 "Postal services", the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2020, and conflicting national standards shall be withdrawn at the latest by December 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

The changes to the 2012 version are limited and concern editorial improvements and the correction of small errors. Without giving a complete overview, these points can be mentioned:

- Definitions have been aligned with other ISO standards (accuracy 3.1, characteristic 3.7, estimator 3.27, inspection 3.32)
- The definition of panellist has been added (3.39)
- The maximum number of test letters per week per panellist has been explained in more detail in chapter 6.2.1
- "Zone" has been changed to "area"
- The independence of the auditor to the measurement has been further highlighted in chapter 8
- The formula in the note concerning Table A1 has been corrected
- In Annex H the issue of the handling by customs has been referred to
- Annex J (changes to the 2007 version) has been deleted

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association (Standardization request M/548), and supports essential requirements of EU Directive(s).

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 13850:2020 (E)

Introduction

General

The European Commission emphasises the need to have common rules for the development of community postal services and the improvement of Quality-of-Service (QoS). The Commission has identified requirements for postal QoS-Measurement systems that include:

- Independent end-to-end measurement capabilities;
- A focus on national and cross-border distribution service performance;
- A single, uniform and reliable system for monitoring distribution service performance within the Union.

The Commission has acknowledged that the different postal traditions and cultures in Europe would not allow for the establishment of one common unified European measurement system and that national systems should have sufficient freedom to reflect national needs and peculiarities. On the other hand, they should fulfil a defined set of minimum requirements to satisfy the information interests of the European Commission, the regulatory authority, postal customers and postal operators themselves. Any regulatory authority is free to adapt to national circumstances where the standard gives room to do so. This is explained further in Annex E.

The objective of the measurement is to estimate the end-to-end transit time QoS given to the customer domestically in each European country and cross-border between the European countries. This European Standard refers to a number of principles and minimum requirements to be applied for the measurement of the end-to-end transit time service level.

Regulatory background

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The regulatory basis of EN 13850 is laid out in the 97/67/EC, as amended by Directive 2002/39/EC and Directive 2008/6/EC.

Main guidance is given in Chapter 6 Quality of Service. Article 16 states: "Member States shall ensure that quality-of-service standards are set and published in relation to Universal Service in order to guarantee a postal service of good quality".

Furthermore, EN 13850 is mandatory for measuring the performance levels of single piece priority or first class mail which falls under the universal service¹.

For intra-community cross-border mail of the fastest standard category a minimum QoS level is laid down in the Directive 97/67/EC. At least 85 % of all letters shall have an end-to-end transit time of J+3 and less and at least 97 % of all letters shall have an end-to-end transit-time of J+5 and less.²

The mandate for this revised version of EN 13850:2020 is the Standardization request (M/548) of the European Commission which asked CEN/TC 331 to "revise existing standards" and to cover the topic "a method for transit time measurement for cross border postal items" in order to satisfy regulatory needs.

¹ See also: "Letter to all Members of the Postal Directive Committee, 21.03.2005, Brussels, Markt/E4/JR/DS/HM D(2005) – 2346" (N676, CEN/TC331)

² See also: "Postal Directive 97/67/EC: Article 18.1 and Annex" and "Postal Directive 2008/6/EC: Article 18.1 and Annex 2, Article 1"

1 Scope

This document specifies methods for measuring the end-to-end transit time of domestic and cross-border Single Piece Priority Mail (SPPM), collected, processed and delivered by postal service operators. It considers methods using representative end-to-end samples for all types of single piece priority mail services for addressed mail with defined transit-time service levels offered to the customer. This document is applicable to the measurement of End-to-End priority mail services.

The standardised QoS-measurement method provides a uniform way for measuring the end-to-end transit time of postal items. Using a standardised measurement method will assure that the measurement will be done in an objective and equal way for all operators in accordance with the requirements of the Directive 97/67/EC and its amendments.

It is not the purpose of this document to measure the postal operators' overall performance in a way that provides direct comparison of postal service providers.

This document relates to the measurement of the SPPM services given to household and business customers that post mail at street letterboxes, over the counter at post offices or have pick-ups at their offices. To cover flows with smaller mail volumes this document includes flexibility areas for adapted implementation. For technical reasons this document may not be suitable for the measurement of very small volumes of mail.

The end-to-end service measured may be provided by one operator or by a group of operators working either together in the same distribution chain or parallel in different distribution chains. This document is not applicable for the measurement of end-to-end transit times in fields of study with more than one induction operator (Multi-Operator Environments), which require different methodologies. The method for end-to-end measurement specified in this document is also not designed to provide results for the measurement of parts of the distribution chain.

This document is not applicable for the measurement of end-to-end transit times of bulk mailers' services and hybrid mail, which require different measurement systems and methodologies (see, for example, EN 14534 Measurement of the transit time of end-to-end services of bulk mail).

This document includes specifications for the quality control and auditing of the measurement system.

This document does not specify:

- the minimum acceptable level of accuracy that will be required by the national regulatory authority;
- the target(s) that the regulatory authority might set;
- how the regulatory authority should determine whether the target(s) have been met.

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2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

accuracy

closeness of agreement between a test result or measurement result and the true value

Note 1 to entry: The term accuracy, when applied to a set of test results, involves a combination of random components and a common systematic error or bias component.

[SOURCE: ISO 3534-2:2006]

Note 2 to entry: In this standard the accuracy is expressed as $\pm\epsilon$, where 2ϵ is the length of the confidence interval at the confidence level 95 % for the parameter being estimated, namely the probability of attaining the transit time target.

3.2

aggregation

compounding of primary data into an aggregate for the purpose of expressing them in a summary form

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3.3

audit

systematic and independent examination to determine whether activities and related results comply with planned arrangements and whether these arrangements are implemented effectively and are suitable to achieve objectives

Note 1 to entry: The organisation carrying out the audit is called the auditor.

Note 2 to entry: A (full) audit may be carried out as an initial audit of a new or substantially changed system or as an initial audit by a new auditor. It may also be carried out as a re-audit of the same system by the same auditor in the next audit cycle.

Note 3 to entry: If an audit results in objections, then the auditor may require corrective actions until a defined deadline. A final check of these corrective actions is called *corrective audit*.

3.4

average (arithmetic mean)

sum of values divided by the number of values

[SOURCE: ISO 3534-1:2006]

3.5

bring service

mail collection or mail delivery service, specifically contracted by the customer

3.6**business panellist**

panellist with an address other than a household address such as a company or an organisation

3.7**characteristic**

distinguishing feature

Note 1 to entry: The characteristics may either help to identify or differentiate between items of a given population

Note 2 to entry: The characteristics may be either quantitative - by variables, or qualitative - by attributes.

[SOURCE: ISO 3534:2006]

Note 3 to entry: In this standard the population is SPPM items and the characteristics are related to type of senders, type of receivers, times and types of induction or delivery, physical aspects of test items, franking, etc.

3.8**city**

geographically defined area according to national classification systems

3.9**clearance**

operation of collecting postal items by a postal service provider

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3.10**conformity**

fulfilment of specified requirements

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3.11**corrective action**

action taken to eliminate the causes of an existing non-conformity, defect or other undesirable situation in order to prevent recurrence

3.12**country**

territory of a nation with its own government

3.13**cross-border mail**

mail from or to another state or from or to a third country

3.14**customer**

natural or legal person purchasing a postal service from a postal operator

3.15**date of delivery**

date on which a postal item is delivered to the address or to the addressee

EN 13850:2020 (E)**3.16****date of induction (J)**

date on which a postal item is posted, provided posting takes place before the last collection of that day

Note 1 to entry: The term date of induction has the same meaning as the term date of deposit in the Directive 97/67/EC.

Note 2 to entry: Last collection refers to the advertised last time for collection (not the actual time).

3.17**date of posting**

date on which a postal item is posted (irrespective of whether it is posted before the advertised last collection of that day)

3.18**delivery point**

physical location at which delivery of postal items by a postal operator takes place and where they leave the operator's responsibility

3.19**design basis**

structure in the field of study for which the design of the measurement is representative. The design basis should be defined before the start of the measurement

Note 1 to entry: If a design basis other than measured real mail flows is selected, then statements regarding the representativity of the measurement shall be made in relation to the chosen design basis.

3.20**design factor**

ratio of the variance of the estimator of the QoS indicator in the given sample design by the variance of the estimator in an elementary sample design of the same size. The design factor is always related to a given sample design and estimator

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3.21**discriminant characteristic**

characteristic affecting the outcome

Note 1 to entry: In this standard a characteristic is discriminant when the transit time significantly differs according to the different modes of the characteristic (see 6.4.2).

3.22**distribution**

process from collecting mail at collecting points through sorting at the mail centre(s) to the delivery of mail items to the addressee

3.23**domestic mail**

mail items sent and received within one country

3.24**effective sample size**

total sample size divided by the design factor

3.25**end-to-end**

routing from the access point to the network up to the point of delivery to the addressee

3.26**estimate**

value of an estimator obtained as a result of an estimation

3.27**estimator**

statistic used in estimation of the parameter

Note 1 to entry: In this European Standard, an estimator is a function of the observed values of test-item transit times allowing the estimation of the probability of attaining the transit time target.

[SOURCE: ISO 3534-1:2006]

3.28**field of study**

total SPPM flow between defined postal areas

Note 1 to entry: Some examples for field of study could be:

- Domestic – one induction operator in one country
- Domestic – one induction operator in one part of a country
- Cross-border – one induction operator on a country-to-country link
- Cross-border – one induction operator to one delivery operator
- Cross-border – one induction operator to a group of delivery operators
- Cross-border – one induction operator to one country
- Cross-border – one country to one delivery operator
- Cross-border – one induction operator to a group of countries
- Cross-border – a group of countries to one delivery operator
- Cross-border – one country to one country

Note 2 to entry: Some mail flows between postal operators may not meet the technical requirements in this standard to qualify as fields of study, e.g. limited mail volumes (see Annex D).

3.29**geographical coverage**

spread of postal services within a pre-defined geographical area

3.30**independent performance monitoring organisation**

body charged with the monitoring of the QoS according to the methodology specified in this standard, which is external to, and having no links of ownership or control with the postal operator thus monitored

3.31**induction**

deposition of mail into the postal network

EN 13850:2020 (E)**3.32****inspection**

conformity evaluation by observation and judgement accompanied as appropriate by measurement, testing or gauging

[SOURCE: ISO 3534-2:2006]

3.33**last collection time**

advertised last time for collection or contracted latest time for collection

Note 1 to entry: This is often not equal to the actual collection time, because from the postal work-organisation point of view, the collection usually happens some time later than the advertised last collection time (e.g. the collection routing timetable can only be defined with some tolerance).

3.34**metered mail**

mail franked by franking machines

3.35**office of exchange**

place where a postal operator accepts cross-border mail from a postal operator of another country and prepares mail for the transfer to other countries

3.36**on-time performance**

proportion of postal items within a given period of time with transit times meeting the specification

3.37**on-time probability**

probability of the event that the transit time T of a mail item meets the transit time target t , i.e. does not exceed the specified number t of days:

$$P(T \leq t)$$

3.38**one-operator field of study**

field of study with exactly one induction operator

Note 1 to entry: A one-operator field of study may be defined in a multi-operator postal environment.

Note 2 to entry: End-to-end postal operation in a one-operator field of study may include several postal operators for processing and / or delivery.

3.39**panellist**

person acting as sender and/or receiver of test items

Note 1 to entry: Private panellist is a panellist with a household address

Note 2 to entry: Business panellist is a panellist with an address other than a household address such as a company or an organisation

Note 3 to entry: Professional panellist is a panellist who is paid to perform specific tasks, usually posting mail in various pre-defined posting points during a day and posting more frequently than private or business panellists

3.40**pick-up time**

published time by which the postal operator commits to ensuring that the day's post is available in the P.O. Box for collection

3.41**panel turnover**

permanent and active exchange of established panellists with new panellists

3.42**panel rotation**

active change in the subset of established panellists, which are chosen for participation in a study, or in their tasks in the study from one period to the other

3.43**postal area**

one of the parts into which a postal operator's whole territory is divided and which is suitable for characterising postal distribution peculiarities

3.44**postal catchment area**

postal area served by a domestic sorting centre or by an office of exchange for cross border mail outbound or inbound. Catchment areas may be different for outbound and inbound mail or for different fields of study

3.45**postal item**

item addressed in the final form in which it is to be carried by a postal service provider

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3.46**postal performance indicator**

expression used to characterise the performance of a postal operator

Note 1 to entry: In this European Standard, the performance indicator is derived from postal transit time statistics.

3.47**postal service**

services involving the clearance, sorting, transport and delivery of postal items

3.48**priority item, first class item, A-class item**

postal item sent with priority as defined nationally

3.49**private panellist**

panellist with a household address

3.50**professional panellist**

panellist who is paid to perform specific tasks, usually posting mail in various pre-defined posting points during a day and posting more frequently than private or business panellists

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3.51**quality**

totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs

3.52**quality assurance**

every planned and systematic activities implemented within the quality system and demonstrated as needed, to provide adequate confidence that an entity will fulfil requirements for quality

3.53**quality control**

operational techniques and activities that are used to fulfil requirements for quality

3.54**quality evaluation**

systematic examination of the extent to which an entity is capable of fulfilling specified requirements

3.55**real mail flow**

number of postal items of a given type on a given link within the postal network

3.56**real mail study**

studies on real mail flows or real mail characteristics involving sampling of real mail items

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3.57**rural**

geographical entity with less than a specified number of inhabitants

Note 1 to entry: In context of this standard, 'rural' represents the rest of the field of study apart from urban areas as defined in 3.69.

3.58**service standard**

standard that specifies requirements to be fulfilled by a service, to establish its fitness for purpose

Note 1 to entry: For end-to-end transit time monitoring systems the service standard is the number of qualifying days within which items should be delivered. This service standard is also called 'transit time target'.

3.59**single piece mail**

postal items posted and distributed via a postal service for which a 'single piece tariff' for individual postal items is set in the general terms and conditions of the postal service provider that receives the payment

Note 1 to entry: Single piece mail may be inducted using different modes of payment as long as the induction of individual postal items is not restricted.

Note 2 to entry: Excluded are all postal services that contain further requirements on the induction like, for example, the registration of items, minimum induction volumes, equal contents or a pre-sortation of the inducted mail.

3.60**sorting centre**

place where the main sorting of mail is done

3.61**stamped mail**

postal items paid for with postage stamps

3.62**stratification**

division of a population into mutually exclusive and exhaustive subpopulations (called strata)

Note 1 to entry: A Stratification is thought to be more homogeneous with respect to the characteristics investigated than the total population

[SOURCE: ISO 3534-2:2006]

3.63**study domain**

subpopulations for which separate results may be appropriate

Note 1 to entry: Study domains could be defined for example by geographic segmentation or by product

3.64**test item**

postal item produced in the test measurement system for the purpose of measuring transit time Quality-of-Service.

Note 1 to entry: A test item should be assigned to a stratum in the field of study.

Note 2 to entry: It should be manufactured, inducted and delivered according to the discriminant mail characteristics defining the stratum

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3.65**test period**

period under which measurement has been carried out and for which the results are presented in a separate test report

3.66**time of delivery**

time when a postal item is delivered at its delivery point

3.67**time of posting**

time when a postal item is posted at its induction point

Note 1 to entry: The time of posting may be before or after the actual last time of collection.

3.68**transit time**

number of days elapsed between date of induction and date of delivery of a mail item

Note 1 to entry: The transit time is calculated according to 5.2.3

3.69**urban**

geographical entity with not less than a specified number of inhabitants