

<b>STN</b>	<b>Zariadenia na kontrolu parkovania vozidiel Požiadavky a skúšobné metódy na parkovacie terminály</b>	<b>STN EN 12414</b>  26 9805
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Vehicle parking control equipment - Requirements and test methods for a parking terminal

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

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**EN 12414**

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English Version

## Vehicle parking control equipment - Requirements and test methods for a parking terminal

Équipement de contrôle du stationnement des véhicules - Exigences et méthodes d'essai pour un terminal de stationnement

Einrichtungen zur Parküberwachung von Fahrzeugen - Anforderungen und Prüfverfahren für Parkautomaten

This European Standard was approved by CEN on 3 May 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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN 12414:2020 (E)**

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**EN 12414:2020 (E)****European foreword**

This document (EN 12414:2020) has been prepared by Technical Committee CEN/TC 226 “Road equipment”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by January 2021, and conflicting national standards shall be withdrawn at the latest by January 2021.

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.

This document supersedes EN 12414:1999.

The significant technical changes incorporated in this revision are:

- new requirements depending on the different modes of operation (Pay and Display, Pay and Go, Pay on Departure) which justify the change in the title and the scope of this standard where “pay and display ticket machine” has been replaced by “parking terminal”;
- test method described for each of the requirements in annex, which justify the change in the title and scope where “test methods” has been added;
- accessibility requirements taking into account new EN 301549:2018;
- requirement for user interface taking into account new technologies (display, keyboards, touch screen...);
- requirements and definition of categories of terminals depending on the level of connectivity with a centralised system (centralised system requirement being out of the scope of this standard);
- requirements for minimum information to be exchanged with the centralised system for connected terminals;
- requirements for payment means taking into account banknotes and new electronic means of payment;
- energy autonomy requirement for terminal powered by mains supply or solar energy or combination of solar energy and non-rechargeable battery, with detailed test procedure in annex;
- protection against theft or burglary with detailed test procedure in annex and introduction of security classes P0 to P4, with a minimum of P0 required;
- update of operation and management requirements;
- update of normative references.

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.

## Introduction

This document is a revision of the EN 12414 issued in 1999. This is not a harmonized standard. This document has been written for those called upon to manufacture, operate, maintain and use a parking terminal with the aim of providing requirements and test methods, especially for parking terminals in addition to the applicable European Directives.

This document takes the different modes of operation of parking terminal into account:

- pay and display mode;
- pay and go mode;
- pay on departure mode;

and the different configurations of:

- user interface;
- means of payment;
- power supply;
- connectivity;
- protection against theft or burglary;

in order to provide measurable minimum requirements and associated test methods to standardize and qualify:

- ease of use;
- ease of operation;
- accessibility;
- security;
- energy autonomy;
- resistance to environment;
- protection against theft or burglary.

A terminal conformity to this document is understood as a conformity to all minimum requirements applicable to the mode and configuration of the said terminal. This standard is for the terminal only, it does not cover the centralised system. Regarding protection against theft or burglary, conformity to the minimum requirement is reached with class P0, but in addition, classes P1-P4 have been defined to allow terminal suppliers to verify the effectiveness of additional measures to increase the protection against theft or burglary above P0.

**EN 12414:2020 (E)****1 Scope**

This document specifies the technical and functional requirements including test methods for parking terminals. It applies to unattended terminals used to obtain the right to park for visual and/or electronic control of multiple road vehicles, with payment where applicable.

This document only covers parking terminals.

For parking terminals connected to centralised system, this document covers the minimum information to be exchanged with a centralised system. It does not define a standard protocol between parking terminals and centralised systems. It does not define the centralised system.

This document does not cover pay-on-foot terminals.

**2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1332-3:2008, *Identification card systems - Man-machine interface - Part 3: Keypads*

EN 60068-2-1, *Environmental testing - Part 2-1: Tests - Test A: Cold*

EN 60068-2-2, *Environmental testing - Part 2-2: Tests - Test B: Dry heat*

EN 60068-2-30, *Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)*

EN 60068-2-61, *Environmental testing - Part 2: Test methods - Test Z/ABDM: Climatic sequence*

EN 60529, *Degrees of protection provided by enclosures (IP Code)*

EN 60904-1, *Photovoltaic devices - Part 1: Measurement of photovoltaic current-voltage characteristics*

EN 61009-1, *Residual current operated circuit-breakers with integral overcurrent protection for household and similar uses (RCBOs) - Part 1: General rules*

EN 62262, *Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)*

EN 301549:2018, *Accessibility requirements suitable for public procurement of ICT products and services in Europe*

EN ISO 9241-305:2008, *Ergonomics of human-system interaction - Part 305: Optical laboratory test methods for electronic visual displays (ISO 9241-305:2008)*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025)*

EN ISO/IEC 17065, *Conformity assessment — Requirements for bodies certifying products, processes and services (ISO/IEC 17065)*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**