

norm**NEN-EN 12978**

Industrie-, bedrijfs- en garagedeuren en poorten - Veiligheidsvoorzieningen voor automatisch werkende deuren en hekken - Eisen en beproevingsmethoden

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Normcommissie 353640 'Doors, windows, shutters, building hardware and curtain walling'



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Voorbeeld
Preview

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prEN 12978

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English Version

**Industrial, commercial and garage doors and gates - Safety
devices for power operated doors and gates -
Requirements and test methods**

Portes et portails industriels, commerciaux et
résidentiels - Dispositifs de sécurité pour portes
motorisées - Exigences et méthodes d'essai

Türen und Tore - Schutzeinrichtungen für
kraftbetätigte Türen und Tore - Anforderungen und
Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 33.

If this draft becomes a European Standard, 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.

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European foreword

This document (prEN 12978:2017) has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters, building hardware and curtain walling”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12978:2003+A1:2009.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

Compared with EN 12978:2003+A1:2009, the following changes have been made:

- a) revision according to the requirements of EN ISO 12100:2010 (safety of machines);
- b) deletion of requirements which are covered by EN 12453 for the safe function of the combination of safety device and industrial, commercial and garage doors, so that only basic requirements of safety devices are covered by this document;
- c) modification of the definition of test pieces and test procedures for light curtains and barriers.

Introduction

This document is a type C document as stated in EN 12100.

The machinery concerned and the extent to which hazards, hazardous situations and events are covered are indicated in the scope of this document.

When provisions of this type C document are different from those which are stated in type A or B documents, the provisions of this type C document take precedence over the provisions of the other documents, for machines that have been designed and built according to the provisions of this type C document.

This document has been prepared to meet the needs of manufacturers, users and safety enforcement authorities, with the primary purpose of providing design and performance for safety in use of power operated industrial, commercial and garage doors and gates used by vehicular and pedestrian traffic.

With the aim of clarifying the intention of this document and avoiding doubts when reading it, it was assumed when producing it that clarification occurred between all involved parties (manufacturer, professional installer, user etc.) concerning:

- components to be kept in good repair or working order;
- intended use, the users and place of use of the door;
- all parts of door installations, whether fixed or moving, including the fixing and assembling means, to be in all respects of good construction, suitable material, adequate strength and free from obvious defects for their intended working life;
- the design to be in accordance with European technical rules taking into account the most unfavourable forces occurring during the operation and all failure modes.

prEN 12978:2017 (E)**1 Scope**

This European Standard specifies requirements and test methods for sensitive protective equipment to be used with power operated industrial/commercial/garage doors, gates and barriers covered by EN 12453 and power operated pedestrian doors covered by EN 16005.

NOTE „safety protective equipment” means a device:

- which serves to fulfil a safety function,
- which is independently placed on the market,
- the failure and/or malfunction of which endangers the safety of persons, and
- which is not necessary in order for the machinery to function, or for which normal components may be substituted in order for the machinery to function.

Whenever the term „door” is used in this document, it need to be deemed to cover the full scope of types and variances of doors, gates and barriers defined by the scope of EN 12453 and EN 16005.

This standard does not deal with sensitive protective equipment using ultrasonic, radar, capacitive, inductive or active infrared technologies.

This standard does not apply to inherent sensitive protective equipment.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- EN 12433-1, *Industrial, commercial and garage doors and gates — Terminology — Part 1: Types of doors*
- EN 12433-2, *Industrial, commercial and garage doors and gates — Terminology — Part 2: Parts of doors*
- EN 12453, *Industrial, commercial and garage doors and gates — Safety in use of power operated doors — Requirements*
- EN 60068-2-6, *Environmental testing — Part 2-6: Tests — Test Fc: Vibration (sinusoidal) (IEC 60068-2-6)*
- EN 60068-2-14, *Environmental testing — Part 2-14: Tests — Test N: Change of temperature (IEC 60068-2-14)*
- EN 60068-2-27, *Environmental testing — Part 2-27: Tests — Test Ea and guidance: Shock (IEC 60068-2-27)*
- EN 60068-2-78, *Environmental testing — Part 2-78: Tests — Test Cab: Damp heat, steady state (IEC 60068-2-78)*
- EN 60335-1, *Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1)*
- EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*
- EN 60825-1:2014, *Safety of laser products — Part 1: Equipment classification and requirements (IEC 60825-1:2014)*

EN 61000-6-1, *Electromagnetic compatibility (EMC) — Part 6-1: Generic standards — Immunity for residential, commercial and light-industrial environments (IEC 61000-6-1)*

EN 61000-6-2, *Electromagnetic compatibility (EMC) — Part 6-2: Generic standards — Immunity for industrial environments (IEC 61000-6-2)*

EN 61000-6-3, *Electromagnetic compatibility (EMC) — Part 6-3: Generic standards — Emission standard for residential, commercial and light-industrial environments (IEC 61000-6-3)*

EN 61000-6-4, *Electromagnetic compatibility (EMC) — Part 6-4: Generic standards — Emission standard for industrial environments (IEC 61000-6-4)*

EN 61000-6-7, *Electromagnetic compatibility (EMC) — Part 6-7: Generic standards — Immunity requirements for equipment intended to perform functions in a safety-related system (functional safety) in industrial locations (IEC 61000-6-7)*

EN 61496-2:2013, *Safety of machinery — Electro-sensitive protective equipment — Part 2: Particular requirements for equipment using active opto-electronic protective devices (AOPDs) (IEC 61496-2:2013)*

EN 61784 (all parts), *Industrial communication networks — Profiles (IEC 61784, all parts)*

EN 62471, *Photobiological safety of lamps and lamp systems (IEC 62471)*

EN ISO 4413, *Hydraulic fluid power — General rules and safety requirements for systems and their components (ISO 4413)*

EN ISO 4414, *Pneumatic fluid power — General rules and safety requirements for systems and their components (ISO 4414)*

EN ISO 13849-1, *Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design (ISO 13849-1)*

EN ISO 13849-2, *Safety of machinery — Safety-related parts of control systems — Part 2: Validation (ISO 13849-2)*

EN ISO 13856-1:2013, *Safety of machinery — Pressure-sensitive protective devices — Part 1: General principles for design and testing of pressure-sensitive mats and pressure-sensitive floors (ISO 13856-1:2013)*

EN ISO 13856-2:2013, *Safety of machinery — Pressure-sensitive protective devices — Part 2: General principles for design and testing of pressure-sensitive edges and pressure-sensitive bars (ISO 13856-2:2013)*

EN ISO 13856-3:2013, *Safety of machinery — Pressure-sensitive protective devices — Part 3: General principles for design and testing of pressure-sensitive bumpers, plates, wires and similar devices (ISO 13856-3:2013)*

EN 60664-1:2007, *Insulation coordination for equipment within low-voltage systems — Part 1: Principles, requirements and tests (IEC 60664-1:2007)*

CLC/TS 61496-3:2008, *Safety of machinery — Electro-sensitive protective equipment — Part 3: Particular requirements for Active Opto-electronic Protective Devices responsive to Diffuse Reflection (AOPDDR) (IEC 61496-3:2008)*

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