



**SLOVENSKI STANDARD**  
**SIST-TP CEN/TR 16395:2024**

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**Infrastruktura za plin - Definicije tlaka, ki se uporabljajo v CEN/TC 234 - Smernice**

Gas Infrastructure - CEN/TC 234 Pressure Definitions - Guideline Document

Gasinfrastruktur - CEN/TC 234 Druckdefinitionen - Leitliniendokument

Infrastructures gazières - Définitions des pressions du CEN/TC 234 - Lignes directrices

**Ta slovenski standard je istoveten z: CEN/TR 16395:2023**

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## Gas Infrastructure - CEN/TC 234 Pressure Definitions - Guideline Document

Infrastructures gazières - Définitions des pressions du  
CEN/TC 234 - Lignes directricesGasinfrastruktur - CEN/TC 234 Druckdefinitionen -  
Leitliniendokument

This Technical Report was approved by CEN on 13 November 2023. It has been drawn up by the Technical Committee CEN/TC 234.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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## European foreword

This document (CEN/TR 16395:2023) has been prepared by Technical Committee CEN/TC 234 “Gas Infrastructure”, the secretariat of which is held by DIN.

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 CEN/TR 16395:2012.

In comparison with the previous edition, the following modifications have been made:

- updating the scope for the alignment with the current scope of CEN/TC 234;
- updating of titles of the documents in the bibliography;
- addition of new documents published by CEN/TC 234 in the bibliography;
- updating of the reference to PED in term 3.3.1;
- introduction of a new clause on pressure units in CEN/TC 234 European Standards;
- editorial alignment of the wording to the current CEN drafting rules for Technical Reports.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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## CEN/TR 16395:2023 (E)

### Introduction

#### Background

The standards issued by CEN/TC 234 “Gas Infrastructure” contain a large number of definitions used for the design, testing and operation of the different parts of the gas infrastructure.

This document clarifies the CEN/TC 234 concept behind the pressure definitions and advises how to use the pressure definitions correctly and consistently. In order to further that goal an inventory of existing definitions is made and the primary definitions are identified.

This document also gives guidance for the selection of components falling into the scope of the European Pressure Equipment Directive (PED) [1] and used in the gas infrastructure.

Apart from the issue of the consistency of the pressure definition in the standards there is also the issue of the pressure rating of equipment and systems. Other classifications (e.g. PN or class) do not necessarily completely coincide with the classification as defined in the CEN/TC 234 standards.

Operating pressures levels of the gas infrastructure are different from one country to another in EU, because of many different factors such as history of gas systems, technologies and materials used or technical constraints.

When starting drafting the functional standards on gas infrastructure, CEN/TC 234 recognized various pressure levels and ranges in the European member countries, which are to some extent laid down in national laws.

To form a consensus for the standardization work, all pressure levels used in Europe have been brought together and classified in ranges. This subdivision in pressure levels also permits the manufacturers of components to focus on a limited number of designs in order to reduce the costs.

#### Concept of pressure conditions

On one hand three different sets of pressure conditions are to be considered:

- conditions during testing and commissioning ( $P_1$ );
- conditions during exceptional operating circumstances ( $P_2$ );
- conditions during normal operation ( $P_3$ ).

where:

$$P_1 > P_2 > P_3$$

The maximum pressure levels related to these conditions are the topic of the primary definitions.

On the other hand two other pressure conditions are used for specifying the system:

- pressure on which design calculations are based ( $p_A$ );
- pressure rating of the system ( $p_B$ ).

where

$$p_A > p_B.$$

The relationship between  $p_A$  and  $P_2$  or  $P_3$  is not uniform in the different CEN/TC 234 standards. This situation is confusing and undesirable. The recommended practice is stated in 4.4 and 4.5.