SLOVENSKI STANDARD
SIST EN 15096:2020

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Nadomešča:
SIST EN 15096:2009

Naprave za varovanje pred onesnaženjem pitne vode zaradi povratnega toka - Ventili za preprečevanje podtlaka v pregibnih ceveh - DN 15 do DN 25, vključno z družino H, vrsto B in vrsto D - Splošna tehnična specifikacija

Devices to prevent pollution by backflow of potable water - Hose Union anti-vacuum valves - DN 15 to DN 25 inclusive Family H, type B and type D - General technical specification

Sicherungseinrichtungen zum Schutz des Trinkwassers gegen Verschmutzung durch Rückfließen - Rohrbelüfter für Schlauchanschlüsse - DN 15 bis DN 25, Familie H, Typ B und Typ D - Allgemeine technische Bestimmungen

Dispositifs de protection contre la pollution de l'eau potable par retour - Soupapes anti-vide d'extrémité - DN 15 à DN 25 inclus Famille H, type B et type D - Spécification technique générale

Ta slovenski standard je istoveten z: **EN 15096:2020**

ICS:

13.060.20	Pitna voda	Drinking water
23.060.01	Ventili na splošno	Valves in general
91.140.60	Sistemi za oskrbo z vodo	Water supply systems

SIST EN 15096:2020 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 15096

June 2020

ICS 13.060.20; 23.060.01

Supersedes EN 15096:2008

English Version

Devices to prevent pollution by backflow of potable water - Hose Union anti-vacuum valves - DN 15 to DN 25 inclusive Family H, type B and type D - General technical specification

Dispositifs de protection contre la pollution par retour de l'eau potable - Soupapes anti-vide d'extrémité - DN 15 à DN 25 inclus Famille H, type B et type D - Spécifications techniques générales

Sicherungseinrichtungen zum Schutz des Trinkwassers gegen Verschmutzung durch Rückfließen - Rohrbelüfter für Schlauchanschlüsse - DN 15 bis DN 25, Familie H, Typ B und Typ D - Allgemeine technische Bestimmungen

This European Standard was approved by CEN on 24 May 2020.

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

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Contents

Page

European foreword

This document (EN 15096:2020) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document 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.

This document supersedes EN 15096:2008.

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

a) title changed;

b) scope of application revised;

c) Clause 2 updated;

d) nominal size range in Clause 4 restricted;

e) Clause 9 adapted.

This document has been developed in reference with EN 1717.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this document: 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

In respect of potential adverse effects on the quality of water intended for human consumption caused by the product covered by this document:

a) this document provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA;

b) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

1 Scope

This document specifies:

a) the field of application;

b) the requirements of hose union anti vacuum valves;

c) dimensional and physio-chemical properties, and properties of general hydraulic, mechanical and acoustic design of hose union anti-vacuum valves of nominal sizes DN 15 up to and including DN 25;

d) marking and technical product information.

This document specifies the characteristics of hose union anti-vacuum valves of nominal size DN 15 up to and including DN 25 that are suitable for use in drinking water systems at pressures up to and including 1 MPa (10 bar) and temperatures up to and including 65 °C and for 1 h at 90 °C.

HB protects against back siphonage only and is installed in vertical downward flow position.

HD protects against back flow and is installed in vertical downward flow position.

HB and HD anti-vacuum valves are for installation exclusively at the connecting point between stop valve and hose in vertical downward flow position.

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 1717:2000, *Protection against pollution of potable water in water installations and general requirements of devices to prevent pollution by backflow*

EN 13959, *Anti-pollution check valves - DN 6 to DN 250 inclusive family E, type A, B, C and D*

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1)*

EN ISO 3822-1, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 1: Method of measurement (ISO 3822-1)*

EN ISO 3822-3, *Acoustics - Laboratory tests on noise emission from appliances and equipment used in water supply installations - Part 3: Mounting and operating conditions for in-line valves and appliances (ISO 3822-3)*

EN ISO 5167-1, *Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 1: General principles and requirements (ISO 5167-1)*

EN ISO 6509-1, *Corrosion of metals and alloys - Determination of dezincification resistance of copper alloys with zinc - Part 1: Test method (ISO 6509-1)*

EN 248, *Sanitary tapware - General specification for electrodeposited coatings of Ni-Cr*

3 Terms and definitions

For the purposes of this document, the terms and definitions in EN 1717:2000 and the following 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 https://www.iso.org/obp

3.1
hose union anti-vacuum valve HB
valve equipped with air inlet ports, which are closed at zero flow and when water flows in the intended direction above atmospheric pressure

Note 1 to entry: The air inlets are opened if there is subatmospheric pressure at the water inlet and closed to be watertight again when the supply lines are back to at least atmospheric pressure

Note 2 to entry: For the purpose of this standard, "hose union anti-vacuum valve(s)" are hereafter referred to as "device(s)"

3.2
hose union anti-vacuum valve HD
valve HB with integrated check valve EB located upstream (monoblock/combined products e.g. frost taps)

Note 1 to entry: For the purpose of this standard, "hose union anti-vacuum valve(s)" are hereafter referred to as "device(s)"

4 Nominal size

The nominal size of the devices (DN designated) shall correspond to the nominal size of the threaded inlet connection according to Table 1.

Table 1 — Thread size vs nominal size

Thread size according to EN ISO 228-1	G 1/2	G 3/4	G 1
DN	15	20	25

5 Designation

The device is designated by:

a) name;

b) family;

c) type;

d) nominal size;

e) its size and type of end connection;

f) the acoustic group I, II or nc (for DN ≤ 32);

g) body material;

h) reference to this document (EN 15096).

Example of designation Hose union anti-vacuum valve family H type B, DN 20, CW617N, EN 15096

6 Marking and technical product information

6.1 General

In the countries where the use of products made of dezincification resistant materials is not required, the dezincification resistant products according to EN ISO 6509-1, as well as the products which do not contain zinc, are allowed to be marked “DR”. In countries where the use of dezincification resistant materials is required, the dezincification resistant products, as well as the products which do not contain zinc, shall be marked “DR”.

6.2 Marking

The devices shall be permanently and visibly marked on the body or on a fixed identification plate.

This information shall be on the outside of the device. The marking shall be indelible and obtained by moulding, engraving or similar procedures.

The marking indicates

a) name, manufacturer's brand or logo;

b) arrow indicating direction of flow;

c) nominal size (DN);

d) acoustic group;

e) letters indicating family and type of device;

f) nominal pressure (PN);

g) conformance with this document (EN 15096);

h) maximum operating temperature °C.

Marking a), b), c), and e) are obligatory. In case there is no marking for d), the device shall be considered as not classified acoustically.

6.3 Technical product information

Each package and/or each batch and/or each catalogue of the supplier/manufacturer shall contain technical product information which shall be written in a commonly spoken language of the country in which the product is sold.

It shall provide the following information:

a) designation and purpose of the product;

b) installation instructions in accordance with EN 1717;

c) minimum installation height in accordance with EN 1717;

d) (brand) name and address of supplier/manufacturer;

e) instructions for maintenance;

f) spare part list, if any;

g) generic information of materials used;

h) maximum operating temperature;

i) acoustic group;

j) nominal pressure (PN).

7 Graphic symbol

In this document, the devices are expressed graphically in Figure 1 by:

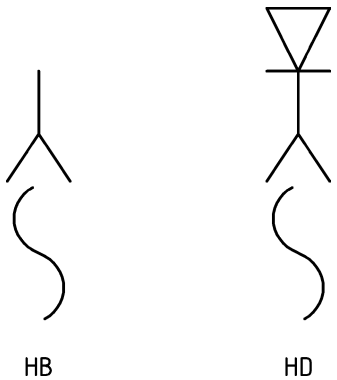

Figure 1 — Hose union anti-vacuum valve symbol

8 General design characteristics

8.1 Design principle

A typical design principle of HB and HD device is given in Figure 2 and Figure 3.