
**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: prEN 15096

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

oSIST prEN 15096:2019**en,fr,de**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 15096

April 2019

ICS 13.060.20; 23.060.01

Will supersede 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

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 164.

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COMITÉ EUROPÉEN DE NORMALISATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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prEN 15096:2019 (E)

European foreword

This document (prEN 15096:2019) has been prepared by Technical Committee CEN/TC 164 “Water supply”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 15096:2008.

This document has been developed in reference with EN 1717.

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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.

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prEN 15096:2019 (E)**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.

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, *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 228-1:2000)*

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 3822-1:1999)*

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 3822-3:2018)*

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 5167-1:2003)*

EN ISO 6509, *Corrosion of metals and alloys — Determination of dezincification resistance of brass (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 according to EN 1717 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 <http://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 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 to entry 2: 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 i.e. frost taps)

Note 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:

- name;
- family;
- type;
- nominal size;
- body material;
- reference to this document (EN 15096).

prEN 15096:2019 (E)

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, 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;
- c) minimum installation height;
- 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 by:

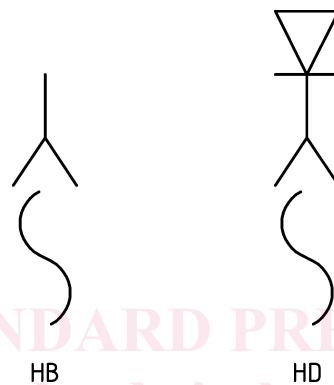


Figure 1 — Hose union anti-vacuum valve symbol

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.