VDMA Services GmbH

Scheme

WELL - Water Efficiency Labelling

Classification scheme
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Content

I. Introduction

Environmental consciousness amongst consumers has been growing continuously over the last few decades. So it's not surprising that building products are now increasingly rated against “energy efficiency” and “resource-saving” criteria. In the past there was often a lack of reliable and credible manufacturer information, whereas today we see a colossal flood of ecological quality seals and environmental symbols for building products that confuse the issue rather than clarify things. This is particularly the case when consumers are unaware of the background to these labels.

Given this situation, the European sanitary valves industry has developed a classification system that

- takes account of the increasing and comprehensible desire of consumers for information and guidance,
- supports consumers' demand to act responsibly towards water and energy resources,
- while not ignoring the matter of comfort.

In developing the classification system, the sanitary valves industry has been guided by the following key concepts, for example:

- the user must be able to detect an immediate, actual saving and improvement in comfort when a higher-quality valve or additional individual components are installed;
- the rating system must set international standards;
- the rating system must be easy to understand.

II. Classification

1. General information

The classification system applies to:

- wash basin valves and bidet valves
- shower valves, shower heads and shower hoses
- urinal flush systems
- WC flush systems
- accessories

Bidet valves are rated in the same way as wash basin valves. Kitchen valves, bath filling valves and connections to household units supplied with water as well as valves for garden water systems are excluded from this classification.

The classification system distinguishes between public and private use.

- Economical use of water and energy is crucial in the public, commercial sector. The hygiene requirements for this sector are higher than for the private sector.
- Sanitary valves in the private sector must provide additional (comfort) functions, and users should also be able to use the water for wellness purposes.

If EN standards exist for the products covered by the classification system, these standards must be met, at the very least, for a WELL label to be awarded. The compliance declaration by the manufacturer as stipulated in ISO/IEC 17050-1 (see annexe 1) serves as proof.

For the WELL rating of wash basins and shower valves,

- energy consumption (warm water) is crucial.

Additionally, there is also what is referred to as a comfort rating for

- temperature
- time (public)
- noise class

For urinals and WC flushing systems, the rating categories are:

- volume (flush volume)
- flush program
- hygiene

A sanitary valve is classified according to its energy consumption (hot water) along the lines of the well-known European bar scale label, classified from I to VI, where I is the best (low level of consumption) and VI is the worst class (high level of consumption). It is possible to achieve 2 stars in each of the comfort categories. Valves for public use can accordingly receive a maximum of 6 stars, while valves for the home can be awarded up to 4.

If a sanitary valve is equipped with an accessory that has been awarded the WELL upgrade label, the rating of the valve is increased accordingly.

If several products in a product line with regard to construction, technical features and performance characteristics are identical, and only differ in shape, design or colour, the manufacturer can unite them in one product family and apply for a classification for the entire product family. In this case, the manufacturer must list all products in the product family within the application via the online form. The model name for the entire product family is to be selected as the product name.

To prove that the WELL rating criteria have been met, a report from an ISO/IEC 17025 accredited partner testing institute of VDMA Services must be submitted.

2. Wash basin and bidet valves

The requirements for the classification of wash basin and bidet valves according to the Water Efficiency Label is the declaration by the manufacturer (see annexe 1) that its product meets the relevant EN standards EN 200, EN 816, EN 817, EN 1111, EN 15091 and possibly also the requirements for noise class I or II as per DIN EN ISO 3822-2. The declaration must state that any materials that come into contact with drinking water do not pose a threat to health.

There is currently no norm required for volume regulators or for water-economy spray regulators, with the exception of flow class Z according to EN 246.

Outlet valves for bidets are rated in the same way as wash basin valves.

2.1 Evaluation criterion for energy consumption (kWh/min.)

Based on the flow rate of the wash basin valves (HOME or PUBLIC), their energy consumption for warm water is calculated using the following formula:

$$\boldsymbol{\Delta Q = c * m * \Delta T * 1/3600}$$

Q = thermal energy [kWh/min.]

c = spec. heat capacity (4.182 $kJ \cdot kg^{-1} \cdot K^{-1}$ for water)

m = flow rate [kg/min.]

ΔT = T2 – T1 (difference between cold and hot water temperature [K])

Efficiency class	Energy consumption	Flow quantity*
I	≤ 0.20 kWh/min.	≤ 6.0 l/min.
II	> 0.20 ≤ 0.25 kWh/min.	> 6 ≤ 7.5 l/min.
III	> 0.25 ≤ 0.30 kWh/min.	> 7.5 ≤ 9.0 l/min.
IV	> 0.30 ≤ 0.39 kWh/min.	> 9.0 ≤ 12 l/min.
V	> 0.39 ≤ 0.49 kWh/min.	> 12 ≤ 15 l/min.
VI	> 0.49 kWh/min.	> 15 l/min.

* Flow pressure 3.0 bar, temperature of cold water 10 °C, temperature of hot water 38 °C

2.1.1 Indication of flow quantity

On the WELL label, the actual flow rate at a flow pressure of 3 bar is to be declared.

For valves with a flow rate of ≤6 l/min., the flow rate is to be adjusted according to the pressure for comfort reasons.

The minimum flow rate should generally not be less than 4 l/min.
For installations in which, when operated correctly, a sufficient exchange of water is ensured, the minimum flow rate may be lower. In these cases corresponding user information shall be enclosed.

The flow rate for wash basin valves is not limited.

The flow rates must be maintained according to test criteria 2.1.2. Possible solutions for non-pressure-dependent solutions include the use of a flow rate regulator, possibly combined with a spray regulator, special spray regulators or other facilities such as regulating angle valves.

Parts with a button to increase the flow rate (water-economy or saving position = default setting) are permitted. If the valve, regulating angle valve or spray regulator also offers the option of activating a higher flow, the default position must be the water-economy setting. This means that the user has to deliberately increase the flow.

Regulating angle valves, as well as volume and spray regulators (installed as retrofitted components) must be inside the aforementioned flow rate limits.

2.1.2 Test criteria

Pressure-dependent solutions

- The level for pressure-dependent solutions is 3 bar = nominal value

Non pressure-dependent solutions

- measurement at 1.5 / 3.0 / 4.5 bar (only to be measured rising)
- The average of the 3 measurements = nominal value
- Permissible deviations from the minimum to maximum value < 2.0 l/min.

2.2 Rating criterion for comfort (max. 6 stars for PUBLIC and 4 stars for HOME)

2.2.1 Temperature

- Flow rate-independent temperature setting (1 star)

  The energy efficiency of mixers is increased if the desired temperatures with minimal adjustment time are predominantly set independent of the flow rate, or the valve is opened in the cold water setting. This can be done, for example, with single lever or double handle valves that limit the hot water inflow.

- Temperature limit (2 stars)

  This covers all devices which can be used to limit outflow temperatures. In addition to increasing energy efficiency, these valves offer protection from outflow temperatures in installations that are used with temperatures that could possibly cause injury.

- Cold water valves

  Sanitary outlet valves for operation exclusively with cold water are viewed as valves with a temperature limit. If operated appropriately, no energy is required for heating drinking water. The valve is clearly labelled as a cold water valve with a blue mark, or a letter or symbol, for example.

  Valves for hot or pre-mixed water (handle labelled red or no label) receive no rating, as the energy consumption cannot be affected at valve level.

2.2.2 Time

- Self-closing/Manual (1 star; not applicable for HOME)

  Self-closing valves must close automatically after activation and after a fixed or adjustable flow time. The flow time should be ≤ 10 s in its

as-delivered state. The self-closing function can be operated hydraulically or electronically.

- Self-closing/Touch free hygienic (2 stars; not applicable for HOME)

  It must be possible to activate the valve without touching it. This can be done by way of user recognition as well as through the chosen touch-free commands.

  The water flow with a sensor valve must stop if the user goes outside the sensor range or if the (adjustable) maximum flow time limit integrated in the valve is exceeded.

2.2.3 Noise class

Fast-flowing water can cause an eddy in the valve, producing noise (as well as pressure shocks when opening and closing): kinetic energy turns into sound; high pressure in the pipes increases flow sounds; movements in the valve are transferred via the pipes to the wall and into neighbouring rooms.

So, valves are attributed noise classes according to noise level:

- valves in noise class I, under normal water pressure of 3 bar, produce a noise level of up to 20 decibels – as quiet as rustling leaves.

- valves in noise class II operate at up to 30 decibels, which corresponds to a quiet conversation.

In public buildings, such as hotels, valves in noise class I are to be provided.

Test criteria

Noise tests for valves are carried out according to DIN EN ISO 3822-2.

Valves with Lap ³ 20 dB (A) are placed in group I (noise class I) and valves with 20 dB (A) < Lap ³ 30 dB (A) are put in class II (noise class II). (The limits given refer to a flow pressure of 0.3 MPa.) The value measured

at a pressure of 0.5 MPa may be up to 5 dB (A) higher. For outlet valves, such as backflow preventer valves or spray regulators, threshold values apply that are 5 dB (A) lower than for valves.

2.3 Classification scheme for wash basin and bidet valves

Rating criterion	Performed by	Rating
Energy consumption (kWh/min.) Measurement with flow pressure of 3.0 bar, temperature of cold water 10 °C, temperature of hot water 38 °C	≤ 0.20 kWh/min.	**I**
	> 0.20 ≤ 0.25 kWh/min.	**II**
	> 0.25 ≤ 0.30 kWh/min.	**III**
	> 0.30 ≤ 0.39 kWh/min.	**IV**
	> 0.39 ≤ 0.49 kWh/min.	**V**
	> 0.49 kWh/min.	**VI**
Indication of flow rate	Indication of flow rate (l/min.)	-
Comfort (temperature, time and noise)	Flow-independent temperature setting	★
	Temperature limit and cold water valves	★★
	Self-closing/Manual	★
	Self-closing/Touch free hygienic (does not apply for HOME)	★★
	Noise class 1	★★
	Noise class 2	★
		TOTAL max. 6 stars

3. Shower valves, shower heads, combinations (sets)

The requirements for the classification of shower valves is the declaration by the manufacturer (see annexe 1) that its product meets the relevant EN standards EN 200, EN 816, EN 817, EN 1111, EN 15091 and possibly also the requirements for noise class I or II as per DIN EN ISO 3822-2. The declaration must state that any materials that come into contact with drinking water do not pose a threat to health.

Shower heads must meet EN 1112. Like spray regulators and volume regulators, the water-economy setting is also relevant for this rating. Both individual products and combinations (sets) can be rated.

An increase in flow above the water economy level (e.g. by turning on other shower sprays) is permitted if the user has to intervene deliberately, i.e. default setting = water economy setting.

In the case of bath filling and shower batteries, only the shower function can be rated.

3.1 Rating criterion for energy consumption (kWh/min.)

Unlike sanitary outlet valves, a healthy and convenient minimum flow of 4.5 l/min. must be achieved for shower valves, hand and head showers as well as for full sets comprising a combination of these components.

Shower heads or shower hoses must be within the aforementioned flow limits, as retrofitted components, to be classifiable.

If the valve, a volume regulator or shower head/shower hose also offers the option of activating a higher flow, the default setting must always be the water economy setting. This means that the user has to deliberately increase the flow. This also includes connectible side shower sprays.

Based on the flow through the wash basin valves (HOME or PUBLIC), the energy consumption for warm water is calculated by using the following formula:

$$\Delta Q = c * m * \Delta T * 1/3600$$

Q = thermal energy [kWh/min.]

c = spec. heat capacity (4.182 $kJ \cdot kg^{-1} \cdot K^{-1}$ for water)

m = flow quantity [kg/min.]

ΔT = T2 – T1 (difference between cold and hot water temperature [K])

Efficiency class	Energy consumption	Flow quantity*
I	≤ 0.49 kWh/min.	≤ 15 l/min
II	> 0.49 ≤ 0.65 kWh/min.	> 15 ≤ 20 l/min.
III	> 0.65 ≤ 0.80 kWh/min.	> 20 ≤ 25 l/min.
IV	> 0.80 ≤ 0.96 kWh/min.	> 25 ≤ 30 l/min.
V	> 0.96 ≤ 1.21 kWh/min.	> 30 ≤ 38 l/min.
VI	> 1.21 kWh/min.	> 38 l/min.

* Flow pressure 3.0 bar, temperature of cold water 10 °C, temperature of hot water 38 °C

3.1.1 Indication of flow rate

On the WELL label, the actual flow rate through the valve at a flow pressure of 3 bar is to be declared.

For valves with a flow rate of ≤ 9 l/min., the flow rate is to be adjusted according to pressure for reasons of comfort.

If valves are supplied as a set with one or several shower heads, the low flow value must be maintained at the default setting for all switch variants. For shower combinations with several shower heads, side shower heads, the classification is given based on the part with the highest flow.

3.1.2 Test criteria

Pressure-dependent solutions

- Measurement for pressure-dependent solutions is 3 bar = nominal value

Non pressure-dependent solutions

2.1 Measurement at 1.5 / 3.0 / 4.5 bar (only to be measured rising)

2.2 The average of the 3 measurements = nominal value

2.3 Permissible discrepancies from the minimum to maximum value < 2.0 l/min.

3.2 Rating criterion for comfort (max. 6 stars for public use and 4 stars for the home)

3.2.1 Temperature

- Mechanical temperature flow limitation measures (1 star)

  The energy efficiency of hot water outlet valves can be optimised using special technical measures. These appliances should limit the outflow temperature to the desired level, or help the user to use hot water sparingly.

  Appropriate measures might be, for example:

  – mechanical limits to the opening angle on mixed valves or limits to the flow rate through hot water valves with double handle valves

  – valves where the normal position is set for cold water (single-lever mixers with central cold water setting)

  – valves with flow limits that can be overridden if desired to enable higher cold or hot water flows

- Thermostat valves (2 stars)

  This includes valves with an adjustable or fixed hot water limit

- Cold water valves (2 stars)

  Shower valves for operation exclusively with cold water (shown in blue) are viewed as valves with a temperature limit. If operated appropriately, no energy is required for heating drinking water. The valve is clearly labelled as a cold water valve with a blue mark, or a letter or symbol, for example.

  Shower valves for hot or pre-mixed water (handle shown in red or not labelled at all) receive no rating, since energy consumption for preparing hot water cannot be controlled by the valve.

3.2.2 Time

- Self-closing/Manual (1 star; not applicable for HOME)

  Self-closing valves must close automatically after activation and after a fixed or adjustable flow time. The flow time should be ≤ 20 s in its as-delivered state.

- Self-closing/Touch free hygienic (2 stars; not applicable for HOME)

  The water flow with a sensor valve must stop if the user goes outside the sensor range or if the (adjustable) maximum flow time limit integrated in the valve is exceeded.

  It must be possible to activate the valve without touching it. This can be done by way of user recognition as well as through the chosen touch-free commands.

3.2.3 Noise level

Fast-flowing water can cause an eddy in the valve, producing noise (as well as pressure shocks when opening and closing): kinetic energy turns into sound; high pressure in the pipes increases flow sounds; movements in the valve are transferred via the pipes to the wall and into neighbouring rooms.

So, valves are attributed noise classes according to noise level.

- valves in noise class I, under normal water pressure of 3 bar, produce a noise level of up to 20 decibels – as quiet as rustling leaves.
- valves in noise class 2 operate at up to 30 decibels, which corresponds to a quiet conversation.

In public buildings, such as hotels, valves in noise class I are to be provided.

Test criteria

Noise tests for valves are carried out according to DIN EN ISO 3822-2.

Valves with Lap ³ 20 dB (A) are placed in group I (noise class I) and valves with 20 dB (A) < Lap ³ 30 dB (A) are put in class II (noise class II). (The limits given refer to a flow pressure of 0.3 MPa.) The value measured at a pressure of 0.5 MPa may be up to 5 dB (A) higher. For outlet valves, such as backflow preventer valves or spray regulators, threshold values apply that are 5 dB (A) lower than for valves.

3.3 Classification scheme shower valves, shower heads, combinations

Rating criterion	Performed by	Rating
Energy consumption (kWh/min.) Measurement with flow pressure of 3.0 bar, temperature of cold water 10 °C, temperature of hot water 38 °C	≤ 0.49 kWh/min.	**I**
	> 0.49 ≤ 0.65 kWh/min.	**II**
	> 0.65 ≤ 0.80 kWh/min.	**III**
	> 0.80 ≤ 0.96 kWh/min.	**IV**
	> 0.96 ≤ 1.21 kWh/min.	**V**
	> 1.21 kWh/min.	**VI**
Indication of flow rate	Indication of flow rate (l/min.)	-
Comfort (temperature, time and noise)	Temperature limit	★
	Thermostat and cold water valves	★★
	Self-closing/Manual (does not apply for HOME)	★
	Self-closing/Touch free hygienic (does not apply for HOME)	★★
	Noise class 1	★★
	Noise class 2	★
		TOTAL max. 6 stars

4. Urinal flush systems

A precondition for the classification of valves for urinals according to Water Efficiency Labelling is proof of compliance with EN 15091 for all contact-free valves, of EN 12541 for non-contact-free flush valves and of EN 14055 for non-contact-free flushes with flushing cisterns.

The functioning capacity or suitability of the ceramic unit must be taken into account when using water-economy urinal flush systems.

The flush performance (urinal flush system) must be proven according to EN 13407.

4.1 Rating criterion flush volume (max. 2 stars)

4.1.1 Flush volume (fixed or adjustable) < 2 l (1 star)

4.1.2 Flush volume (fixed or adjustable) < 1 l (2 stars)

4.2 Rating criterion flush programme (max. 2 stars)

4.2.1 Individual urinal flush control (1 star)

4.2.2 Flush programme, user-frequency control (for stadium use, longer flush intervals or lower flush volume) (2 stars) (does not apply for HOME)

4.3 Rating criterion hygiene (max. 2 stars)

4.3.1 Contact-free actuation (1 star)

4.3.2 Contact-free actuation with stagnation flush (2 stars) (does not apply for HOME)

4.4 Classification scheme urinal flush system

Rating criterion	Performed by	Rating
Volume (flush volume)	Flush volume (fixed or adjustable) ≤ 2.0 l	☆
	Flush volume (fixed or adjustable) ≤ 1.0 l	☆ ☆
Flush program	Individual urinal flush control	☆
	Flush programme, user-frequency control (does not apply for HOME)	☆ ☆
Hygiene	Contact-free actuation	☆
	Contact-free actuation with stagnation flush (does not apply for HOME)	☆ ☆
		TOTAL max. 6 stars

5. WC flush systems

A precondition for the classification of WC flush systems according to the Water Efficiency Label is proof of compliance with EN 12541 for flush valves and EN 14055 for flushing cisterns.

The functioning capacity of the ceramic unit must be taken into account when using water-economy WC flush systems.

The flush performance of the WC flush system must be proven according to EN 997.

5.1 Rating criterion volume (flush volume) (max. 2 stars)

5.1.1 Flush volume (fixed or adjustable) < 6.0 l (1 star)

The flushing systems must be suitable for WC bowl type 6 according to EN 997 with a nominal flush water volume of 6.0 l.

5.1.2 Flush volume (fixed or adjustable) 5.0 l or 4.0 l (2 stars)

The flushing systems must be suitable for WC bowl type 5 and type 4 according to EN 997 with a nominal flush water volume of 5.0 l or 4.0 l.

5.2 Rating criterion flush program (max. 2 stars)

5.2.1 Undefined flush with minimum volumes (start/stop button; brief actuation of flush valve) (1 star)

5.2.2 Defined minimum volume flush (2-volume flush, economy button) (2 stars)

5.3 Rating criterion hygiene (max. 2 stars) (does not apply for HOME)

5.3.1 Contact-free actuation (1 star)

5.3.2 Contact-free actuation with stagnation flush (2 stars)

5.4 Classification scheme WC flush systems

Rating criterion	Performed by	Rating
Volume / flush volume	Flush volume (fixed or adjustable) 6.0 l	☆
	Flush volume (fixed or adjustable) 5.0 l or 4.0 l	☆ ☆
Flush program	Undefined flush with minimum volumes	☆
	Defined minimum volume flush	☆ ☆
Hygiene (does not apply forHOME)	Contact-free actuation	☆
	Contact-free actuation with stagnation flush	☆ ☆
		TOTAL max. 6 stars

6. Accessories WELL Upgrade Energy

The WELL Upgrade Energy label is given for accessories that are retrofitted with the valve, or that are sold with it and that cause an improvement in function (reduced energy consumption). Such accessories can be placed upstream or downstream of the valve.

An accessory that is classified with a WELL upgrade Energy can optimise the energy consumption of the valve. If, for example, a valve is offered with a WELL classification “III” and an accessory with WELL upgrade level “I”, a WELL label with energy class “I” for this product set can be applied for.

6.1 Rating criterion upgrade energy consumption of wash basin and bidet valves (kWh/min.)

Based on the flow rate of wash basin valves (HOME or PUBLIC), the energy consumption for warm water is calculated by using the formula in section 2.1.

Efficiency class	Energy consumption	Flow rate*
I	≤ 0.20 kWh/min.	≤ 6.0 l/min.
II	> 0.20 ≤ 0.25 kWh/min.	> 6 ≤ 7.5 l/min.
III	> 0.25 ≤ 0.30 kWh/min.	> 7.5 ≤ 9.0 l/min.
IV	> 0.30 ≤ 0.39 kWh/min.	> 9.0 ≤ 12 l/min.
V	> 0.39 ≤ 0.49 kWh/min.	> 12 ≤ 15 l/min.
VI	> 0.49 kWh/min.	> 15 l/min.

* Flow pressure 3.0 bar, temperature of cold water 10 °C, temperature of hot water 38 °C

6.2 Rating criterion upgrade energy consumption of shower valves (kWh/min.)

Based on the flow rate of the shower valves (HOME or PUBLIC), the energy consumption for warm water is calculated by using the formula in section 3.1.

Efficiency class	Energy consumption	Flowrate*
I	≤ 0.49 kWh/min.	< 15 l/min
II	> 0.49 ≤ 0.65 kWh/min.	> 15 ≤ 20 l/min.
III	> 0.65 ≤ 0.80 kWh/min.	> 20 ≤ 25 l/min.
IV	> 0.80 ≤ 0.96 kWh/min.	> 25 ≤ 30 l/min.
V	> 0.96 ≤ 1.21 kWh/min.	> 30 ≤ 38 l/min.
VI	> 1.21 kWh/min.	> 38 l/min.

* Flow pressure 3.0 bar, temperature of cold water 10 °C, temperature of hot water 38 °C

7. Compliance declaration

WELL
Water Efficiency Label

Declaration of Conformity in accordance with ISO/IEC 17050-1
Déclaration de conformité selon ISO/IEC 17050-1
Konformitätserklärung nach ISO/IEC 17050-1

The manufacturer declares under his sole responsibility that the products to which this declaration relates are in conformity with the following standards.

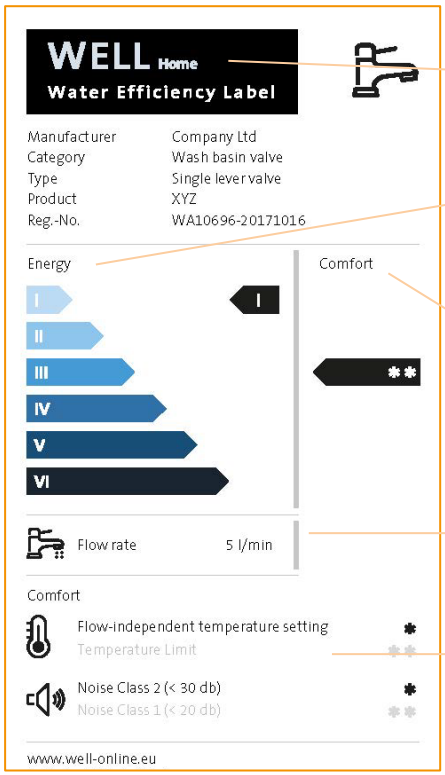
Le fabricant déclare sous sa seule responsabilité que les produits auxquels cette déclaration se réfère à la / le (s) match de norme suivante.

Der Hersteller erklärt in alleiniger Verantwortung, dass die Produkte, auf die sich diese Erklärung bezieht mit der/den folgenden Norm(en) übereinstimmen.

Manufacturer **Fabricant** **Hersteller**	XYZ
Product type/ -designation **Type de produit/ -désignation** **Produkttyp/ -bezeichnung**	XYZ
Applied Standards **Normes appliquées** **Angewendete Normen**	DIN EN 200 (2008-10) DIN EN 246 (2003-11) DIN EN 817 (2008-09) DIN EN 3822-1 (2009-07) DIN EN 3822-2 (1995-05)
Place and date **Lieu et date** **Ort und Datum**	Place, Date
Signature/Name/Funktion **Signature/nom/fonction** **Unterschrift/Name/Funktion**	Name of Applicant

8. Labelling

8.1 Wash basin and bidet valves



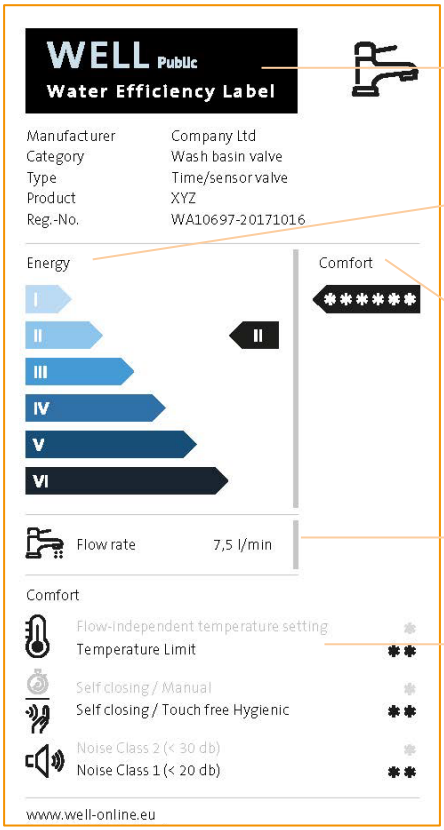
Product application area

Classification based on energy consumption
- Energy rating using numbers (I to VI)
- No limit for class F

Additional rating of the comfort features
- Rating using stars

Measured flow rate at 3 bar

Comfort feature declaration
- max. 2 stars for temperature control
- max. 2 stars for noise class (0 stars if not known)



Product application area

Classification based on energy consumption
- Energy rating using numbers (I to VI)
- No limit for class F

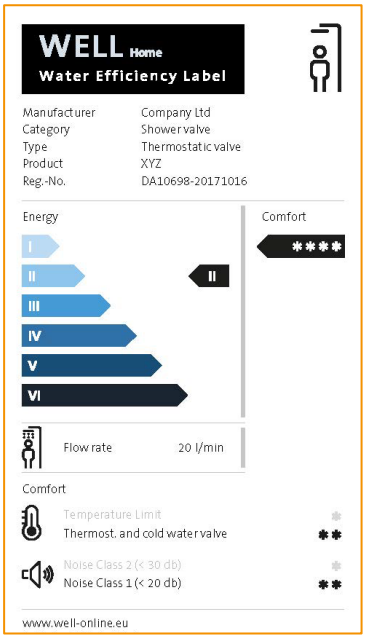
Additional rating of the comfort features
- Rating using stars

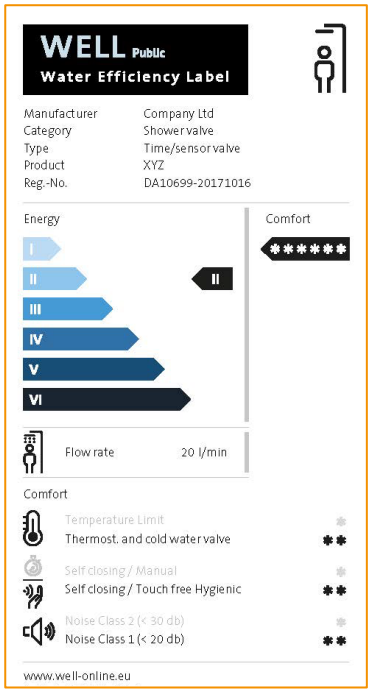
Measured flow rate at 3 bar

Comfort feature declaration
- max. 2 stars for temperature control
- max. 2 stars for time control
- max. 2 stars for noise class (0 stars if not known)

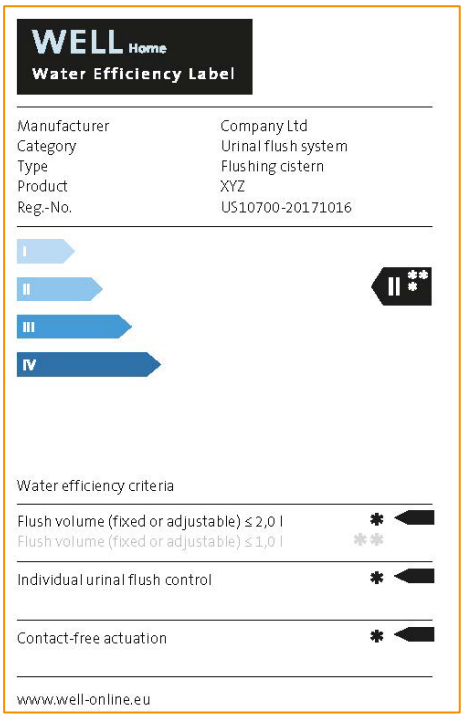
8.2 Shower valves

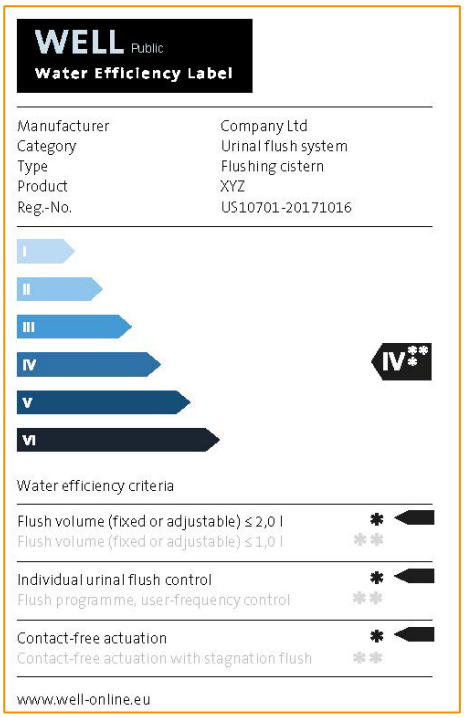
(Description of individual label elements: see WELL for sanitary outlet valves, section 8.1)



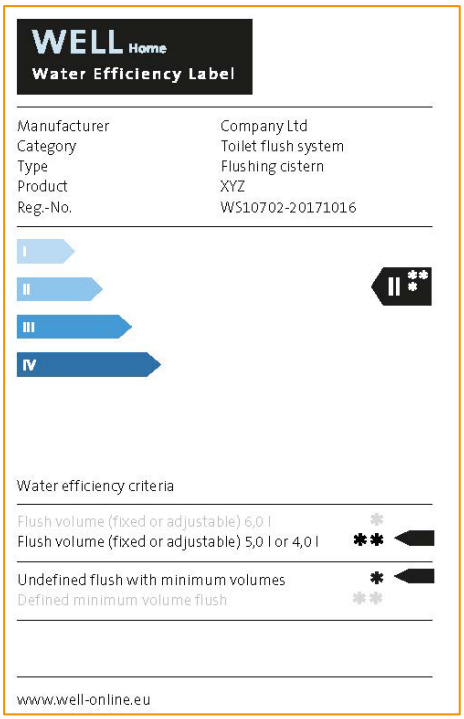


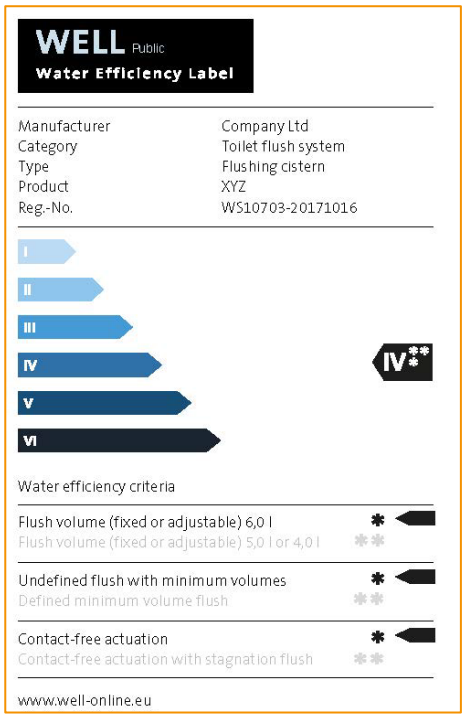
8.3 Urinal flush systems



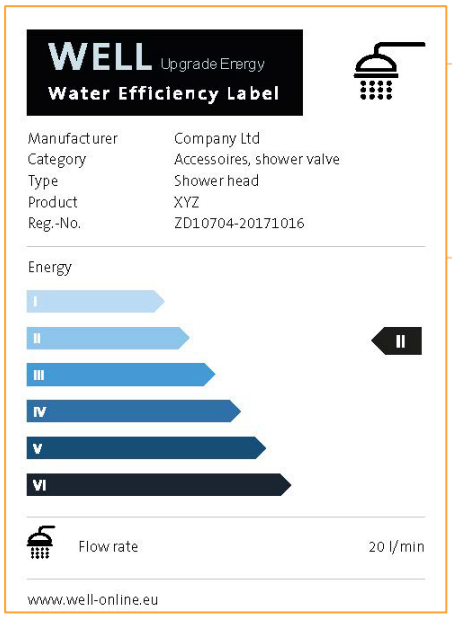


8.4 WC flush systems





8.5 Upgrade label Energy



Indication for the WELL label category, “Upgrade Energy”

Classification based on energy consumption
- Energy rating using numbers (I to VI)
- No limit for class F

Measured flow rate at 3 bar

8.6 Language neutral

8.7 Mini (colour or black and white)