# Product certificate K6151/22



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Replaces K6151/21

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# Water meters and measuring units

#### STATEMENT BY KIWA

With this product certificate, issued in accordance with the Kiwa Regulations for Product Certification, Kiwa declares that legitimate confidence exists that the products supplied by

# Sensus GmbH

complying with the technical specifications as laid down in this product certificate and marked with the Kiwa®-mark in the manner as indicated in this product certificate, on delivery, may be relied upon to comply with Kiwa evaluation guideline:

Kiwa-evaluation guideline BRL-K618/07 "Water meters",

which covers the requirements of

EN 14154 - Part 1: "General requirements".

Bouke Meekma

director Kiwa Nederland B.V.

Publication of the certificate is allowed.

Advice: consult www.kiwa.nl in order to ensure that this certificate is still valid.

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Certification process consists of initial and regular inspection of:

- qualitysystem
- product

#### **Technic specification**

The products mentioned below belong to this certificate

#### BRL-K618/06: Watermeters

#### House water meters

#### 420

- Brass body
- turbine meter, submerged measuring unit, straight counter
- permanent flow rate:  $Q_3 2,5 4 6,3 10 16 \text{ m}^3/\text{h}$ ;
- measuring range Q<sub>3</sub>/Q<sub>1</sub>: R40 / R80 / R160;
- MAP 16 bar;
- MAT 50 °C;
- Totalizer HRI

#### 420 PC

- Brass body
- turbine meter, submerged measuring unit, straight counter
- permanent flow rate:  $Q_3 2.5 4 6.3 10 16 \text{ m}^3/\text{h}$ ;
- measuring range Q<sub>3</sub>/Q<sub>1</sub>: R40 / R80 / R160;
- MAP 16 bar;
- MAT 50 °C;
- Totalizer HRI
- For the 420 PC the register is filled up with a mixture of glycerine and water (Sobrol)

#### 620

#### Brass body

- positive displacement meter, straight counter, dry measuring unit, with bottom sieve:
- permanent flow rate: Q<sub>3</sub> 2,5 m<sup>3</sup>/h and 4 m<sup>3</sup>/h.;
- with smooth or grooved piston Q<sub>3</sub> 2,5 m<sup>3</sup>/h
- measuring range Q<sub>3</sub>/Q<sub>1</sub>: R40 / R80 / R160 / R315 / R400;
- MAP 16 bar;
- MAT 50 °C.
- Totalizer HRI Plastic encapsulated
- Optional totalizer HRI glass/ copper protected
- Optional totalizer HRI -- "Opto Encoder" with absolute Encoder measuring unit

#### 620C

#### Composite body

- positive displacement meter, straight counter, dry measuring unit, with bottom sieve;
- permanent flow rate: Q<sub>3</sub> 2,5 m<sup>3</sup>/h, 4 m<sup>3</sup>/h. 6,3m<sup>3</sup>/h;
- measuring range Q<sub>3</sub>/Q<sub>1</sub>: R40 / R80 / R160 / R315 / R400;
- $\bullet \qquad \text{with smooth or grooved piston for $Q_3$ 2,5 $m^3/h$}$
- permanent flow rate:  $Q_3$  6,3m³/h, measuring range R40/ R80/ R 160
- MAP 16 bar;
- MAT 50 °C.
- Totalizer HRI Plastic encapsulated
- Optional totalizer HRI glass/ copper protected
- Optional totalizer HRI "Opto Encoder" with absolute Encoder measuring unit

#### Woltman water meters

#### MeiStream DN 40

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range horizontal installation
  - Q<sub>3</sub> 16 m<sup>3</sup>/h./ R 40
  - Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 63/ R 100 and R 125

#### vertical installation

- Q<sub>3</sub> 16 m<sup>3</sup>/h./ R 40
- Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 63
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream MS D HRI" with inductive pulse generator
  HRI-Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream MS Encoder" with inductive pulse generator for HRI

#### MeiStream DN 50

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range

#### horizontal installation

- Q<sub>3</sub> 16 m<sup>3</sup>/h./ R 40
- Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 63
- Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 100/ R125/ R 160

### vertical installation

- Q<sub>3</sub> 16 m<sup>3</sup>/h./ R 40
- Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 63
- Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 100
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream MS D HRI" with inductive pulse generator HRI-Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream MS Encoder" with inductive pulse generator for HRI



Technic	specification

The products mentioned below belong to this certificate

#### **Technic specification**

The products mentioned below belong to this certificate

#### MeiStream DN 65

- Cast iron body
- · turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range:
  - horizontal installation
  - Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 40
  - Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 63
  - Q<sub>3</sub> 63 m<sup>3</sup>/h/ R 100/ R125/ R 160

#### vertical installation

- Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 40
- Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 63
- Q<sub>3</sub> 63 m<sup>3</sup>/h./ R 100
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream MS D HRI" with inductive pulse generator
  for
  - HRI-Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream MS Encoder" with inductive pulse generator for HRI

#### MeiStream DN 80

- · Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range horizontal installation
  - Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 40
  - Q<sub>3</sub> 63 m<sup>3</sup>/h./ R 63
  - Q<sub>3</sub> 100 m<sup>3</sup>/h/ R 100/ R200/ R 315

#### vertical installation

- Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 40
- Q<sub>3</sub> 63 m<sup>3</sup>/h./ R 63
- Q<sub>3</sub> 100 m<sup>3</sup>/h./ R 100 and R 125
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream MS D HRI" with inductive pulse generator for
  - HRI-Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream MS Encoder" with inductive pulse generator for HRI

#### MeiStream DN 100

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range horizontal installation
  - Q<sub>3</sub> 63 m<sup>3</sup>/h./ R 40
  - Q<sub>3</sub> 100 m<sup>3</sup>/h./ R 63
  - Q<sub>3</sub> 160 m<sup>3</sup>/h/ R 100/ R200/ R 315

#### vertical installation

- Q<sub>3</sub> 63 m<sup>3</sup>/h./ R 40
- Q<sub>3</sub> 100 m<sup>3</sup>/h./ R 63
- Q<sub>3</sub> 160 m<sup>3</sup>/h./ R 100 and R 160
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream MS D HRI" with inductive pulse generator for
  - HRI-Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream MS Encoder" with inductive pulse generator for HRI

#### MeiStream DN 125

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range horizontal installation
  - Q<sub>3</sub> 100 m<sup>3</sup>/h./ R 40
  - Q<sub>3</sub> 160 m<sup>3</sup>/h/ R 63/ R 100/ R160/ R 250
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream MS D HRI" with inductive pulse generator for
  - HRI-Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream MS Encoder" with inductive pulse generator for HRI

#### **Technic specification**

The products mentioned below belong to this certificate

#### MeiStream DN 150

- · Cast iron body
- · turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range

horizontal installation

- Q<sub>3</sub> 160 m<sup>3</sup>/h./ R 40
- Q<sub>3</sub> 250m<sup>3</sup>/h./ R 63
- Q<sub>3</sub> 400m<sup>3</sup>/h/ R 100/ R200/ R 400
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream MS D HRI" with inductive pulse generator for

HRI-Mei and optoelectronic pulse generator OD

 Optional totalizer "MeiStream MS Encoder" with inductive pulse generator for HRI

#### MeiStream Plus DN 40

- Cast iron body
- · turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range horizontal installation:
  - Q<sub>3</sub> 16 m<sup>3</sup>/h./ R 40 and R 160
  - Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 315
- MAP 16 bar;
- MAT 50 °C:
- Totalizer "MeiStream Plus MS D HRI" with inductive pulse generator for HRI- Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream Plus MS Encoder" with inductive pulse generator for HRI

#### MeiStream Plus DN 50

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range horizontal installation
  - Q<sub>3</sub> 16 m<sup>3</sup>/h./ R 40 and R 160
  - Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 315
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream Plus MS D HRI" with inductive pulse generator for HRI- Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream Plus MS Encoder" with inductive pulse generator for HRI

#### MeiStream Plus DN 65

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range horizontal installation:
  - Q<sub>3</sub> 25 m<sup>3</sup>/h./ R 40 and R 160
  - Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 315 and R 400
- MAP 16 bar;
- MAT 50 °C:
- Totalizer "MeiStream Plus MS D HRI" with inductive pulse generator for HRI- Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream Plus MS Encoder" with inductive pulse generator for HRI

#### MeiStream Plus DN 80

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range: horizontal installation:
  - Q<sub>3</sub> 40 m<sup>3</sup>/h./ R 40 and R 160
  - $\bullet \quad \ \ \, Q_3$  63 m³/h./ R 315 and R 400
- MAP 16 bar;
- MAT 50 °C:
- Totalizer "MeiStream Plus MS D HRI" with inductive pulse generator for HRI- Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream Plus MS Encoder" with inductive pulse generator for HRI

#### **Technic specification**

The products mentioned below belong to this certificate

#### MeiStream Plus DN 100

- Cast iron body
- turbine meter, dry measuring unit, straight counter permanent flow rate/ measuring range: horizontal installation
  - Q<sub>3</sub> 63 m<sup>3</sup>/h./ R 40 and R 160
  - Q<sub>3</sub> 100 m<sup>3</sup>/h./ R 315 and R 400
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream Plus MS D HRI" with inductive pulse generator for HRI- Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream Plus MS Encoder" with inductive pulse generator for HRI

#### MeiStream Plus DN 150

- Cast iron body
- turbine meter, dry measuring unit, straight counter
- permanent flow rate/ measuring range: horizontal installation
  - Q<sub>3</sub> 160 m<sup>3</sup>/h./ R 40 and R 160
  - Q<sub>3</sub> 250 m<sup>3</sup>/h./ R 315 and R 630
- MAP 16 bar;
- MAT 50 °C;
- Totalizer "MeiStream Plus MS D HRI" with inductive pulse generator for HRI- Mei and optoelectronic pulse generator OD
- Optional totalizer "MeiStream Plus MS Encoder" with inductive pulse generator for HRI

#### BRL-K618/05: Cold watermeters

In deviation of the stated under the aspect "Application and use" and "compulsory specifications" the following applies for under mentioned products:

Water meters and measuring units are designed for drinking water installations with a maximum working pressure of 1 MPa and a maximum water temperature of 30 °C.

- name or mark of manufacturer on the dial(or on the specification plate) and on the lead seal;
- indication of class on the dial (or on the specification plate);
- nominal measuring capacity "Qn.." or "Qn..m3/h" on the dial (or on the specification plate);
- manufacture number on the glass holder (or on the specification plate);
- arrow showing direction of flow on the body;
- "V" of "H", when the meter is to be applied only respectively in horizontal or vertical position, on the body.

#### FXN

- turbine meter, submerged measuring unit, straight counter, class B
- nominal flow rates of: Q<sub>n</sub> 1,5/ 2,5/ 3,5/ 6 and 10 m<sup>3</sup>/h

#### XNP

- turbine meter, submerged measuring unit, straight counter class C, with check valve Ocean DN 20
- nominal flow rate of: Q<sub>n</sub> 1,5 m<sup>3</sup>/h.



#### **Technic specification**

The products mentioned below belong to this certificate

620 Composite and brass body

- positive displacement meter, straight counter, dry measuring unit, class C, with bottom sieve
- nominal flow rate Q<sub>n</sub> 1,5 m<sup>3</sup>/h. and 2,5 m<sup>3</sup>/h

#### Woltman water meters (horizontal and vertical installation)

WP-Dynamic-QH

- turbine meter, dry measuring unit, straight counter, class B
- nominal flow rates: Q<sub>n</sub> 40/ 60 and 150 m<sup>3</sup>/h.

#### WB-Dynamic-PH,

- Turbine meter dry measuring unit, straight counter class B
- nominal flow rates: Q<sub>n</sub> 40/ 60 and 150 m<sup>3</sup>/h.

#### Woltman water meters (horizontal installation)

WS-Dynamic-PH

- · turbine meter, dry measuring unit, straight counter, class B
- nominal flow rates: Q<sub>n</sub> 15/ 25/ 40/ 60 and 150 m<sup>3</sup>/h.

#### **Combination water meters**

WPV-FU

- turbine meter, dry measuring unit, straight counter, class B
- nominal flow rates: Q<sub>n</sub>15/ 40/ 60 and 150 m<sup>3</sup>/h

#### **Auxiliary meters**

The above mentioned water meter combinations shall be provided with an auxiliary meter from form the section "Water meters for house connections".

#### Water meters for standpipes on hydrants

- STM-N(XN)
- turbine meter, submerged measuring unit, straight counter, class B, nominal flow rate: Q<sub>n</sub> 10 m<sup>3</sup>/h.

#### STW-TRM

- turbine meter, dry measuring unit, straight counter, class class B,
- nominal flow rate: Q<sub>n</sub> 15 m<sup>3</sup>/h.



#### Application and use

Water meters and measuring units are designed for drinking water installations with a maximum working pressure of 1 MPa and a maximum water temperature of 50 °C.

#### Toxicological requirements

The toxicological requirements for products coming into contact with drinking water are laid down in the "Regeling materialen en chemicaliën drink- en warm tapwatervoorziening" (Regulation materials and chemicals for drinking water and warm tap water supply; published in the Government Gazette).

This product is not completely evaluated according to above mentioned regulation. Parts of the product that meet the requirements of above mentioned regulation are recorded in the Appendix to the certificate.

#### Marking

The Kiwa®-mark products are marked with the word mark "KIWA".

Place of the mark: On the dial (or on the specification plate) and on the lead seal

#### Compulsory specifications:

- Unit of measurement (m³);
- Numerical value of Q<sub>3</sub>;
- Ratio Q<sub>3</sub>/Q<sub>1</sub>;
- MAP if where it differs from 1MPa;
- · Direction of flow;
- MAT (where it differs from T 30);
- Name or trademark of the manufacturer;
- · Year of manufacture.

#### Method of marking:

- Non-erasable;
- visible after assembly.

#### RECOMMENDATIONS FOR CUSTOMERS

Check at the time of delivery whether:

- the supplier has delivered in accordance with the agreement;
- the mark and the marking method are correct;
- the products show no visible defects as a result of transport etc.

If you should reject a product on the basis of the above, please contact:

- Sensus GmbH Ludwigshafen
- and, if necessary,
- Kiwa Nederland B.V.

Consult the supplier's processing guidelines for the proper storage and transport methods.