



# OIML Certificate

## **OIML Member State** The Netherlands



Number R117/2007-A-NL1-20.09 revision 1 Project number 3144570 Page 1 of 3

Issuing authority NMi Certin B.V.

Person responsible: M.Ph.D. Schmidt

Applicant and Manufacturer

Brodie Meter Company, LLC 19267 US Highway 301N Statesboro, GA 30461 United States of America

Identification of the certified type

A measurement transducer

Type: SB25x, B27x, B28x, B29x, B30x, B31x, B32x,

B33x, B34x, B35x, B36x, or B38x<sup>[1]</sup>

Characteristics See page 2 and further

This OIML Certificate is issued under scheme A

This Certificate attests the conformity of the above identified type (represented by the sample(s) identified in the OIML Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

> R 117-1:2007 "Dynamic measuring systems for liquids other than water" 0.3; 0.5 Accuracy class

This Certificate relates only to the metrological and technical characteristics of the type of measuring instrument covered by the relevant OIML International Recommendation identified above. This Certificate does not bestow any form of legal international approval.

Important note: Apart from the mention of the Certificate's reference number and the name of the OIML Member State in which the Certificate was issued, partial quotation of the Certificate and of the associated OIML Type Evaluation Report(s) is not permitted, although either may be reproduced in full.

[1] With x being a code for the pressure rating.

Issuing Authority

NMi Certin B.V., OIML Issuing Authority NL1

15 September 2022

Certification Board

This document is issued under the provision that no liability is accepted and that the applicant shall indemnify third-party liability.

> The notification of NMi Certin B.V. as Issuing Authority can be verified at www.oiml.org

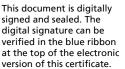
signed and sealed. The digital signature can be verified in the blue ribbon at the top of the electronic







NMi Certin B.V. Thijsseweg 11 2629 JA Delft The Netherlands T +31 88 6362332 certin@nmi.nl www.nmi.nl







# **OIML** Certificate

**OIML Member State** The Netherlands



Number R117/2007-A-NL1-20.09 revision 1 Project number 3144570 Page 2 of 3

The conformity was established by the results of tests and examinations provided in the associated reports:



- CPC-809423-1 dated 27 October 2008 that includes 13 pages.
- CPC-9200527-1 dated 22 February 2010 that includes 16 pages
- CPC-10200257-1 dated 19 April 2011 that includes 5 pages
- NMi-1900551-01 dated 28 February 2017 that includes 7 pages
- NMi-2402597-01 dated 14 February 2020 that includes 11 pages
- NMi-3144570-01 dated 15 September 2022, that includes 10 pages

### **Characteristics of the measuring instrument**

In Table 1 the general characteristics of the measuring instrument are presented. Table 2 gives an overview of the general characteristics of the family of instruments. The construction of the measurement transducer is recorded in documentation folder number TC7295-7.

#### **Table 1 General characteristics**

| Environmental classes           | M2 / E2 / H3  |
|---------------------------------|---|
| Ambient temperature range       | -25 +55 °C; condensing humidity                                       |
| Temperature range liquid        | -10 +50 °C  |
| Maximum pressure drop           | 1,37 bar (20 PSI)   |
| Bearings                        | Stainless steel; ceramic  |
| Intended for the measurement of | Oil and oil products, alcohol, chemical products, and potable liquids |

# **Table 2 General characteristics of the family of instruments**

|                              | Meter size |         | SB25x            |         | B27x     | B28x     |
|------------------------------|------------|---------|------------------|---------|----------|----------|
| Qmin, class 0.5              | [L/min]    | 30      | 20 (A)<br>30 (B) | 57      | 114      | 166      |
| Qmin, class 0.3              | [L/min]    | - 57    |                  | 215     | 166      |          |
| Qmax                         | [L/min]    | 570     |                  |         | 2081     | 3406     |
| MMQ                          | [L]        | 10      |                  |         | 100      | 200      |
| Diameter in- & outlet        | [mm]       |         | 50 (2")          |         | 80 (3")  | 100 (4") |
| Cyclic volume <sup>(c)</sup> | [L]        | 0,129   |                  | 0,937   | 1,9      |          |
| K-factor <sup>(c)</sup>      | [pulses/L] | 252     |                  |         | 42       | 25       |
| Maximum pressure             | [bar(g)]   | 51 (D)  |                  | 102 (D) |          |          |
| Viscosity range              | [mPa·s]    | 0,4 0,8 | 0,8 2            | 2 5     | 0,4 1000 |          |





# **OIML** Certificate

# **OIML Member State**The Netherlands



Number R117/2007-A-NL1-20.09 revision 1 Project number 3144570 Page 3 of 3

#### Notes:



- The B28x meters can be used for different liquids without adjustment. All other types need adjustment when used for a different liquid.
- The SB25x meter is constructed as a single case housing. All other types are constructed as a double case housing.
- (A) Serial number up to 1207-XXXXU-X-X
- (B) Serial numbers 1208-XXXXU-X-X or higher
- (C) Nominal value
- (D) Depending on the pressure ranting, up to the stated maximum pressure.

|                              | Meter size | B29x     | B3zx <sup>(A)</sup> | B3yx <sup>(B)</sup> | B3wx <sup>(C)</sup> | B38x      |
|------------------------------|------------|----------|---------------------|---------------------|---------------------|-----------|
| Qmin                         | [m³/h]     | 10       | 34                  | 79                  | 125                 | 200       |
| Qmax                         | [m³/h]     | 256      | 750                 | 795                 | 1250                | 2100      |
| MMQ                          | [L]        | 200      | 500                 | 1000                | 2000                | 5000      |
| Diameter in- & outlet        | [mm]       | 150 (6") | 200 (8")            | 250 (10")           | 300 (12")           | 400 (16") |
| Cyclic volume <sup>(D)</sup> | [L]        | 1,9      | 8,3                 | 16,58               | 32,4                | 68,9      |
| K-factor <sup>(D)</sup>      | [pulses/L] | 25       | 10,5                | 7,2304              | 3,7149              | 2,157     |
| Maximum pressure             | [bar(g)]   |          |                     | 102 <b>(E)</b>      |                     |           |
| Viscosity range              | [mPa·s]    |          |                     | 0,4 1000            |                     |           |

### Notes:

- The B29x, B33x, B34x, B35x, and B36x meters can be used for different liquids without adjustment.
  - All other types need adjustment when used for a different liquid.
- (A) With z indicating the flange size:  $0 = 6^{\prime\prime}$ ,  $1 = 8^{\prime\prime}$  and  $2 = 10^{\prime\prime}$
- (B) With y indicating the flange size:  $3 = 10^{\circ}$  and  $4 = 12^{\circ}$
- (C) With w indicating the flange size:  $5 = 10^{\circ}$  and  $6 = 12^{\circ}$
- (D) Nominal value
- (E) Depending on the pressure ranting, up to the stated maximum pressure.

# **Certificate history:**

This revision replaces the previous version.

| Revision | Date              | Description of the modification                  |  |
|----------|-------------------|--|--|
| Initial  | 25 June 2020      | -  |  |
| 1        | 15 September 2022 | Addition of 10" and 12" measurement transducers. |  |



